

**MITIGATING DISPUTES IN PUBLIC-PRIVATE
PARTNERSHIPS: A STUDY ON INFRASTRUCTURE
PROJECTS IN SRI LANKA**

Gayathri Nagalingam

(159160G)

Degree of Master of Science in Construction Law and Dispute Resolution

Department of Building Economics

University of Moratuwa

Sri Lanka

May 2020

**MITIGATING DISPUTES IN PUBLIC-PRIVATE
PARTNERSHIPS: A STUDY ON INFRASTRUCTURE
PROJECTS IN SRI LANKA**

Gayathri Nagalingam

(159160G)

Theses/Dissertation submitted in partial fulfillment of the requirements for the
degree of Master of Science in Construction Law and Dispute Resolution

Department of Building Economics

University of Moratuwa

Sri Lanka

May 2020

DECLARATION

Declaration, copyright statement and the statement of the supervisor

“I declare that this is my own work and this thesis/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 thesis/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).

N. Gayathri

21/05/2020

.....

.....

Gayathri N (159160G)

Date:

The supervisor/s should certify the thesis/dissertation with the following declaration.

The above candidate has carried out research for the Bachelors/Masters/MPhil/PhD thesis/ Dissertation under my supervision.

Name of Supervisor: Prof. (Mrs) Y.G Sandanayake

.....

.....

Signature of the Supervisor

Date

ABSTRACT

Government of Sri Lanka (GOSL) has history of applying Public Private Partnerships (PPP) in public infrastructure development projects. All the construction projects are prone to disputes, however, the projects procured via PPP is most subjected to disputes due to its nature and characteristics, where involve huge stakeholders with various interests, complex and long-term nature, prone to impacts from outside forces, often beyond the control of the collaboration parties, complex legal arrangements, easily subjected to misinterpretation. Disputes are the key factor, which avert the wealthy accomplishment of the project and subsequently end up in huge unexpected costs, contract revocation, and relationship and reputation devastation. It is difficult to entirely eliminate the disputes in PPP; however, the disputes could be mitigated by proposing the most suitable strategies for PPP projects.

Accordingly, this study aims on how to mitigate disputes in PPP infrastructure projects in Sri Lanka. Qualitative approach was adopted as the most appropriate research approach for this study and interviews were conducted using semi-structured interview guideline among the personnel who involved in Sri Lankan's PPP projects, thereby the total of twelve participants from public party, private party and others were interviewed. Documentary review also adopted as secondary data collected tool. Data were analysed by adopting cause and effect diagram and content analysis using pre-determined themes as per research objectives.

The eventual findings revealed that, the disputes in Sri Lankan PPP infrastructure projects often occurred related to political, legal, environmental, land and market & revenue; which are identified as most influential categories, in which the PPP projects are highly affected, and those cannot be eliminated in the future PPP projects as well. Meanwhile, disputes related to contract, design and specification, and construction are identified as medium influencing categories, in which the PPP projects are considerably affected and those factors can be eliminated by the time, based on the experiences and when the PPP projects get familiar to professional, thereby, those can be eliminated based on the mitigation strategies. In addition, human behavior and economic related dispute are considered as less influential factors, where human behavior related disputes can be mitigated though the education, training, and well communication system. Moreover, economic related disputes can be settled by allocating proper contingencies and adequate contractual provision in the contract and those already practiced by the project practitioners in Sri Lanka.

Finding further revealed that, inadequate knowledge on PPP, lacks in partnering, lack of transparency, poor quality of contract drafting, lack of legal, policy, administration and investment framework, changes in government and policy, poor public awareness, absence of procurement guideline and standard forms for PPP, poor centralized legal system, poor feasibility and risk management strategies, poor coordination, changes in technology are most significant root causes of disputes in PPP in Sri Lanka. Accordingly, public and private parties' close cooperation and effective relationship management, proper coordination, increase the quality of contract drafting, obtain experts' advice, appoint independent partner, proper feasibility study and risk analysis are found as most frequent dispute mitigation strategies. Moreover, develop the strong PPP framework, strong national policies, permanent entities to PPP, transparency procedure, conduct public awareness, develop proper guideline and standard form of contract for PPP, improve PPP unit, improve adequate knowledge on PPP, re-negotiation, strengthen state guarantee, and appoint steering committee are the most significant strategies which can suggest for the future PPP projects in Sri Lanka.

Key words: *Sri Lanka, Public-Private Partnerships, PPPs, Disputes, Causes of disputes, Mitigation strategies*

DEDICATION

I dedicate this research to my beloved family

ACKNOWLEDGEMENT

This research embraces much dedication and absolute assistance received from many individuals, who contribute in plentiful ways to complete this research study. Thus, I take this opportunity to express my gratefulness to each who spent their precious time and endeavour and to all who shared their immense knowledge and professional experience.

First and foremost, I am obliged to my dynamic and inspiring dissertation supervisor and Head of the Department of Building Economic, Prof. (Mrs) Y.G Sandanayake, for her admirable supervision, immense direction, encouragement and support which have made significant contribution to the successful completion of this study. Through her experience and knowledge, she has continuously enriched my raw ideas

Furthermore, I would like to express the greatest appreciation to the industry professionals, for their valuable advice and support, in spite of their busy schedule. They have really been an inspiration and driving force for me.

Finally, I express my heartfelt gratitude to my beloved family members, friends and many others, for willingly giving me their emotional and moral support.

TABLE OF CONTENTS

DECLARATION	i
ABSTRACT.....	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATIONS.....	x
LIST OF APPENDICES	xi
CHAPTER 01	1
1.0 INTRODUCTION TO THE RESEARCH.....	1
1.1 Background	1
1.2 Research Problem.....	4
1.3 Aim and Objectives	5
1.4 Research Methodology.....	5
1.5 Scope and Limitations	5
1.6 Chapter Breakdown.....	6
1.7 Chapter Summary.....	6
CHAPTER 02	7
2.0 LITERATURE REVIEW.....	7
2.1 Introduction	7
2.2 Public-Private Partnerships (PPP).....	7
2.3 Public-Private Partnership in Sri Lanka - Overview.....	17

2.4	Disputes in the PPPs projects	20
2.5	Strategies to mitigate the disputes in PPPs project	27
2.6	Chapter Summary	27
CHAPTER 03		28
3.0	RESEARCH METHODOLOGY	28
3.1	Introduction	28
3.2	Research Process	28
3.3	Research Approach	29
3.4	Research techniques	29
3.5	Data collection techniques	30
3.6	Data analysis	31
3.7	Chapter Summary	31
CHAPTER 04		32
4.0	DATA ANALYSIS AND FINDING	32
4.1	Introduction	32
4.2	Participants Profile	32
4.3	Documents reviewed	34
4.4	PPPs projects that the interviewee involved in Sri Lanka.....	34
4.5	Content analysis for interviewed data	36
4.6	PPPs nature and it's arrangement for disputes	37
4.7	Disputes in PPPs in Sri Lanka.....	42
4.8	Investigation of causes behind the disputes along with the mitigation strategies in PPPs in Sri Lanka.....	43
4.9	Strategies to mitigate the disputes in PPPs in Sri Lanka.....	91
4.10	Chapter Summary.....	99

CHAPTER 05	100
5.0 CONCLUSIONS AND RECOMMENDATIONS.....	100
5.1 Conclusions	100
5.2 Recommendations for industry practitioners	104
5.3 Further Studies	104
REFERENCES	105
APPENDICES	121

LIST OF FIGURES

Figure 2.1: PPP arrangement and types of PPPs.....	12
Figure 2.2: PPP Contract parties and Generic structure of PPPs.....	15
Figure 2.3: Stages leading to origin of disputes.....	21
Figure 3.1: Research Process	28
Figure 4.1: Structure of the themes.....	36
Figure 4.2: PPPs characteristics which lead to the disputes	37
Figure 4.3: Coding structure of major disputes categories	42
Figure 4.4: Causes and effect diagram of PPP’s disputes.....	44
Figure 4.5: Causes of land related disputes	45
Figure 4.6: Causes of Design and specification related disputes.....	49
Figure 4.7: Causes of contract related disputes	56
Figure 4.8: Causes of construction disputes	65
Figure 4.9: Causes of political related disputes	70
Figure 4.10: Causes of legal related disputes.....	75
Figure 4.11: Causes of environment related disputes	80
Figure 4.12: Causes of Market and revenue related disputes	83
Figure 4.13: Causes of Economic related disputes	85
Figure 4.14: Causes of human behaviour related disputes	87

LIST OF TABLES

Table 2.1: Definitions of PPP	8
Table 2.2: Key responsibilities of public and private parties.....	12
Table 2.3: Contract mode of PPP.....	13
Table 2.4: Types of Concessions mode of PPP	13
Table 2.5: Types of BOT and similar arrangement of PPP	14
Table 2.6: Roles and Responsibilities of PPP project parties	16
Table 2.7: Largest PPP projects in Sri Lanka in between 1999 and 2017	18
Table 2.8: Causes of disputes by categories	21
Table 2.9: Dispute categories and related causes of disputes	24
Table 2.10: Examples of PPP project cancelled due to disputes	26
Table 4.1: Profile of selected Participants	33
Table 4.2: Root causes and mitigation strategies for land related	48
Table 4.3: Root causes and mitigation strategies for design/ specification related ...	54
Table 4.4: Root causes and mitigation strategies for contract related	63
Table 4.5: Root causes and mitigation strategies to construction related	69
Table 4.6: Root causes and mitigation strategies for political related	74
Table 4.7: Root Causes and mitigation strategies for legal related disputes	79
Table 4.8: Root Causes and mitigation strategies for environmental related disputes	82
Table 4.9: Root causes and mitigation strategies to market and revenue related disputes	85
Table 4.10: Root causes and mitigation strategies to economic related	86
Table 4.11: Root causes and mitigation strategies for human behavior related	90
Table 4.12: Proposed mitigation strategies in PPP infrastructure projects	92

LIST OF ABBREVIATIONS

ADB	:	Asian Development Bank
ADR	:	Alternative Dispute Resolution
BOI	:	Board of Investment
BOO	:	Build-Own-Operate
BOT	:	Build-Own-Transfer
BOOT	:	Build-Own-Operate-Transfer
BOOST	:	Build-Own-Operate-Share-Transfer
BROT	:	Build-Rehabilitate-Operate-Transfer
BLO	:	Build-Lease-Own
BTO	:	Build-Transfer-Operate
CICT	:	Colombo International Container Terminal
CEB	:	Ceylon Electricity Board
CEA	:	Central Environmental Authority
CHEC	:	China Harbor Engineering Company
DBFO	:	Design-Build-Finance-Operate
DBFM	:	Design-Build-Finance-Maintain
GOSL	:	Government of Sri Lanka
IFC	:	International Finance Cooperation
MOF	:	Ministry of Finance
NHDA	:	National Housing Development authority
NPC	:	National Procurement Commission
NWS&DB	:	National Water Supply & Drainage Board
PPP	:	Public Private Partnership
RDA	:	Road Development Authority
ROT	:	Rehabilitate-Operate-Transfer
RLT	:	Rehabilitate-Lease or Rent-Transfer
SPV	:	Special Purpose Vehicle
SLPA	:	Sri Lanka Ports Authority
SBD	:	Standard Bidding Document
UDA	:	Urban Development Authority
USD	:	United State Dollar

LIST OF APPENDICES

Appendix A: Summary of causes and strategies for PPP disputes	121
Appendix B: Causes and Effect Diagram of PPP disputes	130
Appendix C: Expert Interview Guideline	139
Appendix D: Transcript of Expert Interview	143

1.0 INTRODUCTION TO THE RESEARCH

1.1 Background

Infrastructure projects are traditionally urbanized by the governments using public budgets (Shen, Tam, Gan, Ye & Zhao, 2016; Li, Akintoye & Hardcastle, 2001). Further to Jorgensen and Lundgaard (2016), infrastructure projects are generally financed by state, where state-owned corporation is liable for plan, finance, construct and operate the projects. However, the inadequacy of public capital and the scarcity of managing expertise in government have headed to the development of alternate procurement approach to develop and run the infrastructure projects (Shen, et.al., 2016; Li, Akintoye & Hardcastle, 2001). Further to the authors, one of such procurement mechanism is Public Private Partnership (PPP) approach.

PPPs have become the world wide recognized phrase for government working in partnership with private sectors to deliver the facilities of the community (Duffield, 2003). PPP projects have progressively covered an extensive variety of public projects including, (a) economic infrastructure such as telecommunication, transportation (roads, highways, sea ports, and railroads), power and energy, water supply and sanitation; and (b) social infrastructure such as schools, universities, hospitals, prisons, and community housing (Zou, Zhang, & Kumaraswamy, 2012). In addition, PPPs have turn into an explicit process to achieve advantages such as increased efficiency, bring in innovation, access to advanced technology, and optimal risk transfer (Cheung, 1999). The Government of Sri Lanka (GOSL) has distinguished that the private partner could play a vigorous task in accelerating growth and in emerging infrastructure projects, and thereby is dedicated to promote PPPs in the nation (United States Agency International Development [USAID], 2016).

PPP is a cooperation between public and private actors (Gajurel, 2013). Various researchers have defined the PPPs in various methods. However, the empathies

persist the same. As stated by Van Ham and Kooenjan (2001:598), “PPP is a cooperation of some sort of durability between public and private sectors in which they jointly develop products and services and share risks, costs and resources, which are connected with these products”. Another definition of PPP specified by Akintoye, Beck and Kumaraswamy (2016) is: “PPP is a contractual agreement of shared ownership between a public agency and private company, whereby the pool resources, and share risks and rewards, to create efficiency in the production and provision of public or private goods”. Moreover, Herpen (2002) defined PPP as “cooperation between the public and the private sector, where the government and the private sector together carry out the project on the basis of agreed division of tasks and risks, each party retaining its own identity and responsibilities”. Hence, it can be conclude that the PPP is a long-term contractual arrangement between the public and private sector to deliver or develop the public facilities under certain conditions whereby the risks, responsibilities, resources, and rewards are shared.

Generally, PPP is reliant on long-term relationship, where the individual agreement is structured to 20-40 years typically between government, private sector, users of the services and general public (Parvu & Olteanu, 2009; Duffield, 2003). Hence, the both public and private contributors are accountable for the work via ownership, engagement of resources to construction, and operation and management of the facilities reliant on the infrastructure provided (Duffield, 2003).

PPPs involve multiple participants with composite transaction and distinct interest in all different phases of the projects (Kurniawan, Mudjanarkoa, & Ogunlana, 2015). Further to the authors, it is crucial that the project negotiation and evaluation between public sectors and other shareholders to be carried out in an opportune manner. Cakmak and Cakmak (2014) stated that participants are from various professions in this complex environment and each contains its own aims, and each anticipates to make the utmost of its own advantages. Further to authors, since there are distinctions in opinions amongst the members of the projects, conflicts are obvious in the construction industry and especially in PPP projects. If conflicts are not managed properly, they quickly turn into disputes (Cakmak & Cakmak, 2014).

McInnis (2003) stated that the dispute circumstances are inherent in any PPPs projects. Further, Baxter (2014) stated that, disputes are always present in PPP based projects, since it is complex, naturally multiple contractual contributors, frequently beyond the control of the collaboration of partners, and are prone to influences from external forces. Moreover, disputes arise as a consequence of plentiful causes such as technical nature, climate conditions, and logistical occasions, whereas resolution of disputes in PPP influenced by the views of peoples, methods, actions and cultural inference (McInnis, 2003). According to Quium (2010), the disputes may arise in PPP projects in all phases due to misinterpretation of terms, failure to perform contractual obligations, unilateral action by the parties, and contract compliance.

Moreover, PPP arrangement is associated with many pitfalls, risks and uncertainties to governments and private partners (Reijniers, 1994). It has been argued that the misallocation of contractual risks leads cause of construction disputes in the USA (Megens, 1997; Li, Akintoye, & Hardcastle, 2001). The significant example is the case of Light Railway Transit (LRT) – the Metro Sul Do Tego (MST) at Portugal, where the project was not proceeded further than the first stage of construction due to uncertain risk distribution mechanism, no provision of contingencies plan for the emergencies, shortage of expert personnels for the complex contractual management and absence of supportive documents to the contract management (Tavares, 2014).

The dispute circumstances in PPP projects might persuade the victory and defeat of projects, thereby producing extra costs for entire partners (McInnis, 2003). Further, disputes are the key reasons, which avert the successful accomplishment of the projects. The extreme cases of disputes have caused failure and distress of several previous PPP projects including National Housing Project (Ghana), West Cultural Kowloon District (Hong Kong), Bangkok Elevated Transport System (Thailand), and Ngone bridge project (Osei-Kyei et al., 2018). The National Housing Project in Ghana experienced disputes and completely distressed due to lack of transparency and accountability in project parties, lack of corporation amid the participants, and political and public protest (Osei-Kyei & Chan, 2015). Meanwhile, the project of Panagarh-Palsit Highway project in India, experienced delay due to land issues and

changes of scope orders where ineffectual configuring of the PPP agreement have led to insufficient quality and time overrun (India, 2012). Moreover, Lekki Toll Road Concession project in Nigeria was suspended due to protest by local communities who were against paying tolls, and due to lack of contract management and communication within the government team (Nigeria, 2012).

Hence, it is crucial to be conscious of the disputes, sources of disputes and the mitigation strategies of disputes in accordance to complete PPP projects within the scheduled time, cost and the quality.

1.2 Research Problem

According to several researchers, it is identified that the disputes are inevitable in the PPP projects since it is complex, long-term, generally have numerous contractual members, and are prone to impact from external forces, frequently beyond the control of the collaboration of parties, unexpected circumstances, complex legal arrangement, misinterpretation, contractual provisions are subjected to interpretations and contractual misallocation of risks. Therefore, PPPs are prone to disputes.

Disputes are the major aspects, which avert the efficacious accomplishment of the project (Cakmak & Cakmak, 2014). When the project end in disputes, the project will flop to reach to its original expectation and goals. Moreover, client would undergo from huge legal charges, delay the completion, and general displeasure (Arms, 2011). Therefore, early identification of disputes and sources of disputes, and propose strategies to mitigate the disputes in PPP in infrastructure projects are crucial.

PPP is still in an infant stage in Sri Lanka and awareness of practitioners is comparatively low. Moreover, there is a lack of a study on disputes in PPP projects to Sri Lanka. Therefore, disputes and its mitigation strategies in PPP projects remain unclear in Sri Lanka. Hence, there is a need to identify the disputes, investigate the grounds of disputes and propose strategies to mitigate the disputes in PPPs projects to ensure the disputes free PPP infrastructure projects in Sri Lanka.

1.3 Aim and Objectives

This research studies on how to mitigate disputes in Public Private Partnerships in infrastructure projects in Sri Lanka. The following objectives are set to reach the above:

1. Review the nature and key feature of Public-Private Partnership projects
2. Identify the disputes in Public-Private Partnerships in infrastructure projects in Sri Lanka
3. Investigate the causes behind the identified disputes in Public-Private Partnerships in infrastructure projects in Sri Lanka
4. Propose the strategies to mitigate disputes in Public-Private Partnerships in infrastructure projects in Sri Lanka

1.4 Research Methodology

A broad literature study has been carried out using various books, research papers, articles, journals, conference proceedings, and other publications in order to be familiar with the research area. Subsequently, a qualitative approach was adopted where expert interviews were conducted using semi-structured interview guidelines to get the views of professionals who have expertise in PPP projects. Further, documentary review also adopted as secondary data collection tools to inspect the research problem. Finally, collected data was analysed by using the cause and effect diagrams and code based content analysis technique and conclusions and recommendations of the research were produced.

1.5 Scope and Limitations

The collection of data has been limited to BOT types or similar arrangement of PPP since those are the most popular and commonly used concepts of project financing in recent years in Sri Lanka. Furthermore, the investigation is limited up to construction stage and it is not considered the operations and transfer stages since the most of the professional have less experiences in operation and transfer stage. Moreover, this

study is limited to investigate the disputes in between public party and the private party since the PPP agreement is mainly formed between public and private party.

1.6 Chapter Breakdown

Chapter 1: Introduction to the Research

This chapter presents the research background, research problem, aims and objectives, a short outline of the research methodology and scope and limitations.

Chapter 2: Literature Review

This chapter explicates all the pertinent theoretical status with regard to PPP and disputes in PPP projects through broad literature studies.

Chapter 3: Research Methodology

This chapter describes the adopted research methodology to this study. Moreover, it elucidates the significance of the research via research design and discussions about the data collection method.

Chapter 4: Data Analysis and Findings

This chapter provides the outcomes of the study and provides in-depth analysis of collected data which is done via the semi-structures interview and research findings.

Chapter 5: Conclusions and Recommendations

This chapter provides the conclusions with regard to the research findings, recommendations and areas for the further studies.

1.7 Chapter Summary

This chapter mainly classified the research and elaborated the problems by providing a strong background through investigation of past researches. Moreover, the aim and objectives of the research have emphasized with research methodology in brief manner. This chapter further portrays the scope and limitations of the research and briefly explained the contents in each chapter and the division of those chapters to carry out the research.

2.0 LITERATURE REVIEW

2.1 Introduction

Public Private Partnerships (PPP) have become increasingly popular mode for procuring public services and infrastructure around the world (Akintoye & Back, 2009). It has been a novel trend in the past few decades as a form of financing, specifically in infrastructure projects that the governments are very much attracted (Sambrani, 2014). According to Ministry of Finance Singapore [MOFS] (2012), PPP offer win-win-win resolution to the public partner, private partner, and the general public. Therefore, the Government of Sri Lanka (GOSL) also has determined that encouragement of PPP is a way of enhancing the provision of public facilities (USAID, 2016). However, the PPP are prone to disputes due to its nature and complexity. Therefore, review of nature, main characteristics and features of PPP projects are helpful to identify the areas in which potential disputes may arise under PPP contracts (Bodart, 2014).

Hence, this chapter reviews the nature, key features and specificity of PPP projects. In addition, it presents the disputes in PPP projects and analyses the causes behind the identified disputes and the strategies to mitigate disputes in the PPP projects.

2.2 Public-Private Partnerships (PPP)

2.2.1 PPP: An Overview

The PPP initiatives are commonly referred in few sectors such as infrastructure, health and education and relatively new in the agriculture sector (Rankin, Nogales, Santacoloma, Mhlanga, & Rizzo, 2016). The infrastructure has recognized as a primary driver for economic growth and a numeral of emerging countries have initiated to adopt new procurement method to enhance the innovation and efficacy in development of public infrastructure (Verma, 2010).

PPPs have been recognized as an important vehicle and it became the favorite method for construction and operation of commercially feasible infrastructure projects (Sambrani, 2014). The wide range of application of PPPs in infrastructure projects can be evident specially in roads, bridges, tunnels, ports, railway lines, airports, marinas, to name a few.

PPPs have acknowledged a huge attention in financing and developing of public infrastructure services and facilities in the past decades due to its inbuilt advantages (Babatunde, Perera, Zhou, & Udejaja, 2015). Moreover, PPP is an effective tool to bring private partner efficiencies in formation of infrastructure assets and for delivery of quality public services (Sambrani, 2014). Several countries have adopted the PPP for various motives; such as financial pressure, supply and demand gaps amongst others, addressing fiscal deficit. Hence, the growth of PPP has amplified the efficiency, resources, and sustainability of public facilities in many countries (Babatunde, Perera, Zhou, & Udejaja, 2015). Therefore, PPP concept has become one of the popular procurement types that the governments choose to achieve their public infrastructure requirement.

2.2.2 Definitions of PPP

PPP contains several definitions in various countries. The objectives and contents might vary in accordance to the countries' particular background, different circumstances, numerous modes of PPP and the specific interests of individual author (Alfen, et al., 2009). Table 2.1 exemplifies few definitions of PPP.

Table 2.1: Definitions of PPP

Country	Body	Definition
USA	National Council for PPP	'A long-term contractual arrangement between a public sector agency and a for profit private sector concern, whereby resources and risks are shared for the purpose of delivery of a public service or development of public infrastructure' (Norment, 2000).
Canada	Council for PPP (2007)	"Cooperative venture between the public and private sectors, built on the expertise of each partner, which best meets clearly defined public needs through the appropriate allocation of resources, risks and rewards".
Singapore	Ministry of Finance (2004)	"long-term partnering relationships between the public and private sector to deliver services"

United Kingdom	Majesty's Treasury (1998)	“an arrangement between two or more entities that enables them to do public service work cooperatively towards shared or compatible objectives and in which there is some degree of shared authority and responsibility, joint investment of resources, shared risk taking and mutual benefit”
India	Department of Economic Affairs of the Ministry of Finance (2005)	“the PPP project means a project based on contract or concession agreement between a Government or statutory entity on the one side and a private sector company on the other side, for delivering an infrastructure service on payment of user charges”

According to USA definition, Li and Akintoye (2003) stated that the PPP's objective is to utilize the economies of the private partner to provide the services more effectually and contain everything from outsourcing of operation and management contract to entire privatization or transfer the assets from public to private sector.

Moreover, Gunawansa, Bhullar and Hoque (2012), said from the Canadian definition that it appears to focus on the cooperative scheme in between the public and private partners and the proper apportionment of risks and resources. This shows that the PPP is viewed as a partnering arrangement between the partners with equivalent bargaining authority. Further to the author, the United Kingdom definition focused on companionship among the partners and distributing of risks, profits, rewards and responsibilities (Gunawansa, Bhullar, & Hoque, 2012). Moreover, according to the Singapore definition, the Singapore government adopted to rise the private parties' participation for the public services delivery. Therefore, their definition focused on PPP as a long-term relationship among the public and private parties which permits the public party to involve the private party to provide services to the public (Gunawansa, Bhullar, & Hoque, 2012). Further to the author, the Indian definition indicates that the government grants concessions to the private party, where the public party has limited engagement in the partnership due to fiscal restrictions and poor modern technologies and the private party is required to fund and develop the PPP project and offer facilities back for payments (Gunawansa, Bhullar, & Hoque, 2012).

Accordingly, Sri Lanka's Ministry of Finance (2019), defined the PPP as “Special contractual arrangement between a GOSL Entity and a private investor, for providing a public infrastructure asset or service, in which there is an appropriate transfer of risk to the private investor and where the private investor bears investment and management responsibility on a long-term basis”

Therefore, PPP consists numerous definitions owing to several modes of PPP and different circumstances in distinct countries, several academics and international organisations, and the specific interests of the author with the outcome that a worldwide definitions to which all would agree is elusive. Even though there are no unified definitions for PPPs, most of definitions emphasis common features and characteristics based on the nature of relationship, purpose, roles of parties, legal contract, time duration, ownership, financing, risk, rewards or benefits.

2.2.3 Nature and Characteristics of PPP

There is no unified definitions for PPP. However, all existing definitions have common features or characteristics (Akintoye, Beck and Kumaraswamy, 2016; Grimsey and Lewis, 2004). Peters (1998) introduced five common features of partnership in PPPs as follows.

1. **Involves two (or more) parties:** A PPP comprises two or more parties and at least one of the parties should be in public and other party from the private business sector.
2. **Each participants needs to be a principal:** Each participant needs to be a principal in the partnership and each of participants is proficient of bargaining on its own behalf, instead of having to refer back to another source of authority.
3. **Long-term:** Partnership inaugurates the long-term and ideally steady relationship amongst actors.
4. **Resourcing:** Each participant must contribute something to the partnership in the PPPs. Each should transfer certain resources, whether it is material or immaterial (money, property, authority, reputation) to be a genuine relationship for the partnership.
5. **Sharing responsibility and risk:** The partnership implicates that there is certain sharing of responsibilities for results or activities.

Tarantello and Seymour (1998) suggested that partnership between local government and non-profit organizations also counted as PPP. Moreover, Grimsey and Graham (1997) distinguished that in certain instances, the public partner should set up a

special agency proficient of entering into partnership prior to collaboration becomes probable, thereby, all the parties should create an organizational commitments to the partnership. Further, there is a necessity for enduring relationship and the parameters that are to be negotiated amongst the participants from the inception as a part of the procedure in which such a partnership is formed (Moore & Pierre, 1988). Grimsey and Lewis (2004) said regards to resourcing that, PPP attempt to draw on the optimum skills, knowledge and resources to provide value for money in the provision of public infrastructure services. Moreover, Grant (1996) argues on sharing of responsibility, risk, authority, liabilities, resources and mutual benefits stand at the core of a partnership. Therefore, the central elements represented in PPP approach as its characteristics are corporate arrangement, long term, sharing of resource, risks, responsibilities and rewards or mutual benefit, decision making power and authority.

2.2.4 Forms of PPP contract

PPP generally originate from the proposal of regulator or procurer or service provider (Li & Akintoye, 2003). PPP engage private party's involvement in any or entire design, finance, construction, operation and transfer and ownership phases of public infrastructure development (Alfen, et al., 2009; Akintoye, Beck, and Hardcastle, 2003).

Hence, the involvement of private partners can differ from the provision of facilities to absolute ownership of services due to private sector economic scale and degree of government control (Li & Akintoye, 2003). Therefore, there are several types of PPP being utilized in various parts of the world and for various projects (Akintoye and Kumaraswamy, 2016; Grimsey and Lewis, 2004).

Accordingly, many authors identified that there are four major categories of PPP models such as Contracts, BOO/BOT theme, Concession and Divestitures (Hammami, Ruhashyankiko and Yehoue, 2006; Tanzania, 2008; Farlam, 2005; Asian Development Bank, 2008). The Figure 2.1 illustrates the PPP arrangement and types of PPP.

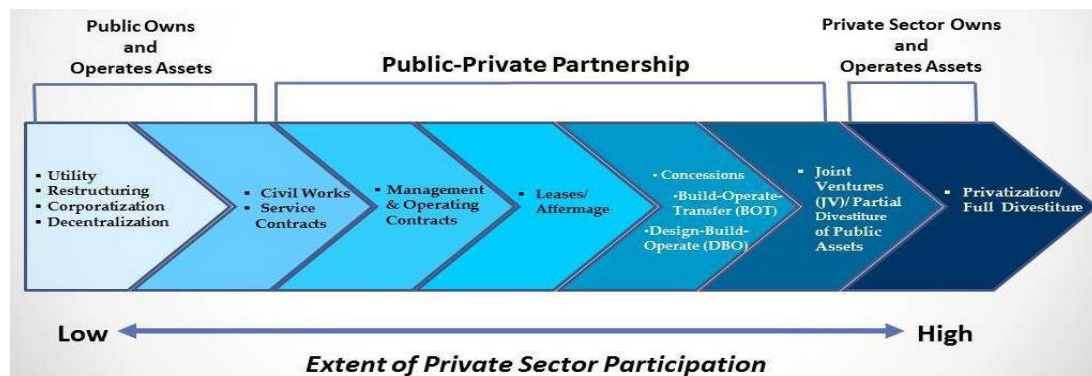


Figure 2.1: PPP arrangement and types of PPPs

Source: (PPP knowledge lab, 2017)

Each types of PPP have its own characteristics in form of the contract period, roles of the stakeholders as well as the relationship between them. Accordingly, Table 2.2 shows the major responsibilities of public and private partners based on the different types of private sector participation.

Table 2.2: Key responsibilities of public and private parties

Mode of Entry	Types of PPPs	Operation & maintenance	Capital Investment	Ultimate ownership	Typical duration (years)
Contract	Management	Private	Public	Public	3-5
	Leasing	Private	Public	Public	8-15
Concession	ROT	Private	Private	Public	20-30
	RLRT	Private	Private	Public	20-30
	BROT	Private	Private	Public	20-30
BOO/BOT theme	Merchant	Private	Private	Public	20-30
	BOT	Private	Private	Semi-private	20-30
	BOOT	Private	Private	Semi-private	30+
	BLO	Private	Private	Private	30+
	BOO	Private	Private	Private	30+
Divesture	partial privatization	Private	Private	Private	30+

Source: (Hammami, Ruhashyankiko & Yehoue, 2006; World Bank, 1997; Farlam, 2005)

The following section discuss the four categories of PPP models in detail.

Contract

These are the simplest form of PPP models. Contract mode of entry in PPP includes management and operation contract and lease contract as shown in Table 2.3.

Table 2.3: Contract mode of PPP

Type of PPP	Description
Management Contracts	Private partner takes over the management of a state-owned enterprise for a fixed period while ownership and investment decisions remain with the state (World Bank, 2005). The government pays a private operator to manage the facility and the operational risks remain with the government (Asian Development Bank, 2008).
Lease Contracts	It is similar to management contracts; however, it involves a greater transfer of operational risk as the private partner pays a lease fee and generates income solely from the use of the assets (Asian Development Bank, 2008). The government leases the assets to the private operator for a fee and the private operator will take over operational risks (World Bank, 2005).

Concessions

Concession is the most important PPP arrangement for the private sector co-responsibility and co-ownership to deliver the services (Li & Akintoye, 2003). Concession transfer the maximum amount of risks (demand, operating, finance) to private partner in exchange for certain form of exclusive operating license (Asian Development Bank, 2008). Different types of concessions of PPP are presented in Table 2.4.

Table 2.4: Types of Concessions mode of PPP

Type of PPPs	Description
Rehabilitate-Operate-Transfer (ROT)	Private developer rehabilitates an existing facility at its own risk, and then operates and maintains the facility at its own risk for a concession period (Wibowo, 2005). Thereafter the rehabilitated facility is restored to the official authority (Sambrani, 2014). The legal title during the partnership period may or may not be turned over to the private partner (Navarro, 2005).
Rehabilitate-Lease or Rent-Transfer (RLT)	Private developer rehabilitates an existing facility at its own risk, leases or rents the facility from the government owner that at risks, and then operates and maintains the facility at its own risk for a given period (Wibowo, 2005). Private partner rehabilitates a facility, sign lease agreement on facility with government sector and transfer at the end of the contract.
Build-Rehabilitate-Operate-Transfer (BROT)	The Private sector might add to the existing facility or complete a partly built facility and rehabilitate existing asset and operate and maintain the facility at its own risk for a given period (Wibowo, 2005).

BOT theme

BOT themes are the mode where a private party or public – private joint ventures build and operate a new services for the certain period stated in the PPP contract (Munya, 2010). At the end, facility might return to public partner (Wibowo, 2005).

BOT theme has several variations and the various types of BOT model of PPP are described in Table 2.5.

Table 2.5: Types of BOT and similar arrangement of PPP

Type of PPP	Description
Build-Lease-Own (BLO) (World Bank, 2005; Munya, 2010; Wibowo, 2005)	Private entity builds a new facility at its own risk, transfers ownership to the government, leases the facility from the government and operates at its own risk, and then transfers the ownership to the government at the end of the concession period (Wibowo, 2005).
Build-Own-Transfer (BOT) or Build-Own-Operate-Transfer (BOOT) (World Bank, 2005; Munya, 2010; Wibowo, 2005; Levy, 1996)	Involves the assembling private companies to finance, design, build, operate and maintain some form of revenue producing infrastructure project for a specific period (Levy, 1996). The formal ownership of the project is then transferred back to the public sector (Grimsey & Lewis, 2004). BOOT is where the ownership and management belongs to the private sector until a specified time; thereafter ownership and management is transferred to the government (The Asia Foundation, 2010).
Build-Own-Operate (BOO) (World Bank, 2005; Munya, 2010; Wibowo, 2005; Levy, 1996)	Private party builds, own, and operate a new facility at its own risk. Then government usually provides revenue guarantees through long term take or pay contracts for bulk supply facilities or minimum traffic guarantees (Wibowo, 2005). In this model, government usually does not manage the infrastructure; the private sector manages the infrastructure on a build-own-operate basis (The Asia Foundation, 2010).
Merchant (World Bank, 2005; Munya, 2010; Wibowo, 2005)	Merchant projects where a private entity or a public-private joint venture builds and operates a new facility for the period specified in the project contract (World Bank, 2005). Merchant whereby a private developer builds a new facility in a liberalized market, however the government does not provide any revenue guarantee. The private developer assumes construction, operation and market risk of the project (Wibowo, 2005).
Build-Transfer-Operate (BTO) (World Bank, 2005; Munya, 2010; Wibowo, 2005; Levy, 1996)	The private sector build and transfer ownership of the facility to public sector at the beginning of the contract operating period, and then operate as per the terms of contract (Sambrani, 2014). The method of relieving the consortium of furnishing high cost insurance required by the project during the operation of the facility (Levy, 1996).
Design-build-finance-operate/maintain (DBFO, DBFM or DBFO/M) (Silva, 2000; Levy, 1996)	These schemes also, a Greenfield type of PPP (Silva 2000), which are similar to BTO, the government will retain title to the land and lease it to the private concern over the life of the concession agreement (Levy, 1996). A private partner is responsible for the design, construction, maintenance, and operation of a facility (Williams, 2010).
Build-own-operate-share-transfer (BOOST) (Silva, 2000; Levy, 1996)	BOOST is a contractual arrangement where private party is authorized to finance, build, own, operate and maintain, share a part of the revenue and transfer the facility at the end of the period (Government of Kerala, 2015).

Partial divestitures

The partial divestitures is where that the government transfers part of the equity in state-owned company to private parties and the private party may or may not imply private management of the services (Wibowo, 2005).

The selection of models is very crucial to avoid the disputes in the infrastructure. Selection of models rest on the nature of procurement, preferred risk allocation, and requirements of investment (Asian Development Bank, 2008). Moreover, special features of certain sectors and its technological improvements, legal and regulatory systems, and political and public perception also can lead to the appropriateness of a specific form of private participation (UNESCAP, 2008).

2.2.5 PPPs Contractual Arrangement

Deliberation of PPP as a contracting approach is a complex, typically time taking, and resource intensive process which should be undertaken carefully and thoughtfully (USAID, 2016). The setup of PPP is indicative of an extroverted investment environment, where the public and private parties are joint developers for public works projects. Their association has created a unique blend of contractual arrangements with a surplus of legal, regulatory and political elements (Dimitrios, 2007). An overview of the key contractual relationships in typical PPP project is set out in the Figure 2.2.

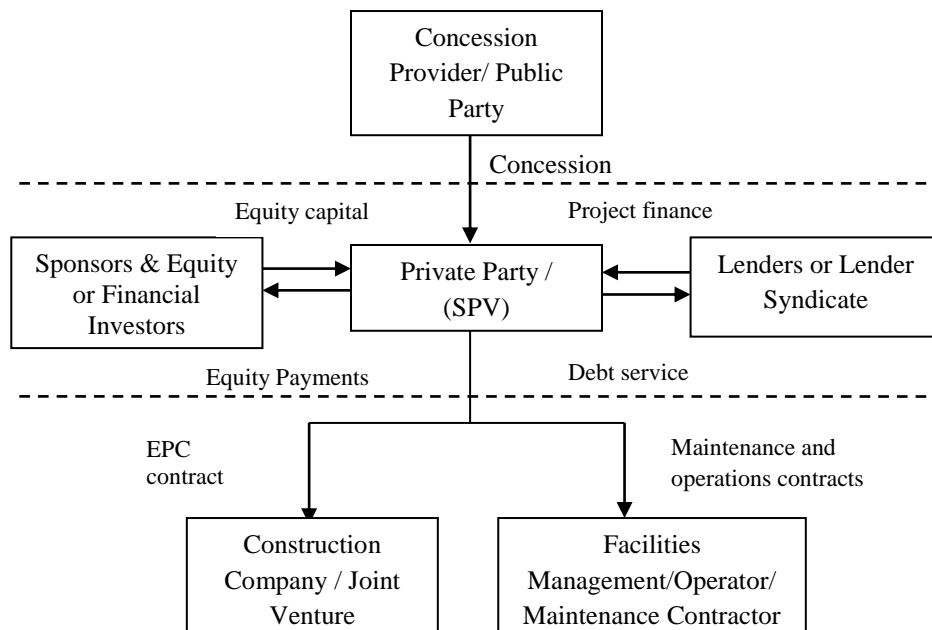


Figure 2.2: PPP Contract parties and Generic structure of PPPs

Source: (Jacobi, 2009; South African National Treasury, 2007)

A typical PPP structure is complex contractual arrangements (UNESCAP, 2008) and it creates the shareholder environment more intricate to administer, as a result of rising significance of the shareholder dynamics and context (Schepper, Dooms, & Haezendonck, 2014). Furthermore, it carries together a numerous parties for the infrastructure investment, generally in the form of ‘special purpose vehicle’ (SPV) which is generated by equity investors especially for the project (Grimsey and Lewis, 2004; Bodart, 2014).

SPV is a significant feature in most of PPP. Through which the equity investors contract with the public party and the prime subcontractors (Grimsey & Lewis, 2004). Furthermore, the SPV is a legal entity which undertakes the PPP project and all contractual agreements amongst various parties are negotiated between themselves (UNESCAP, 2008).

As shown in Figure 2.2, PPPs in the infrastructure involve multiple stakeholders who would have distinct interests and each retains its own identity and responsibilities. A well drafted agreement which formalizes the relationship between the parties and clearly defined roles and responsibilities for each partner (Moskalyk, 2011). Table 2.6 describes the roles and responsibilities of public and private parties in the PPP contract.

Table 2.6: Roles and Responsibilities of PPP project parties

Project Parties	Responsibilities
Private Partner	<p>According to Grimsey and Lewis (2004)</p> <ul style="list-style-type: none"> • Perform the activity demarcated in the contract • Enter into the subcontract with a numerous of organizations to execute the activities <p>According to Delmon (2011)</p> <ul style="list-style-type: none"> • Identify the project and put together a bid in an effort to be awarded the project. • producing and delivering the defined services to the required standard; • designing and building or upgrading the infrastructure asset; • raising funds for the capital needs of the project; • focusing on government’s objectives, while responding in collaboration with the public procurer to variations in project environment; • Returning the assets in the specified condition at the end of the contract.
Public Partner	<ul style="list-style-type: none"> • planning, policy formulation and regulatory matters (UNESCAP, 2008) • supervises, manages, and regulates the services provided over the long-term (Delmon, 2011) <p>These include (Grimsey & Lewis, 2004):</p>

	<ul style="list-style-type: none"> • determine the objectives, seeing that the outcomes are delivered to the required standards, and ensuring that the public interest is safeguarded • demarcate the business and services required, and public partner resources obtainable to pay for them; • stipulate the priorities, objectives, targets and productivities; • implementing a proper planned procurement approach; • define the performance regime by setting and observing safety, quality and performance standards for the services; • govern the contract by impose the standards, take action if they are not delivered; • manage community expectations; • provide enabling environment to perform; • React, in collaboration with private partner to changes in the project environment while remaining dedicated on pre-defined missions.
--	--

Each PPP stakeholders are playing essential roles in managing project. Therefore, there is a need to detect the roles and responsibilities of the project parties. Furthermore, Grimsey and Lewis (2004) stated that the clearly defined roles and responsibilities will help to mitigate the dispute in the projects.

2.3 Public-Private Partnership in Sri Lanka - Overview

GOSL has recognized PPP as a valuable approach to procure and implement the public infrastructure projects, using the expertise and resources of the private partners while providing them the opportunity to participate in the development initiatives of the country, ensuring appropriate risk sharing. The GOSL has led the way by executing huge investments in the ports, water, energy, sanitation, housing, and irrigation sectors (Asian Development Bank, 2011). PPPs are expected in near future are roads, health sectors, public transport, waste management, and creation of sports and recreational facilities in Sri Lanka (Asian Development Bank, 2011; USAID, 2016).

Sri Lanka is the first country in South Asia to structure the BOT in port sector, resulting in significant efficiency gains and growth in transshipment volumes (Wijesinghe, 2018). The Queen Elizabeth Quay was the first PPPs executed in port sector in 1999 as Build-Own-Operate-Transfer (BOOT) types of PPPs with the total cost of USD 240 Million. The sponsors consisted domestic and international investors, with SLPA holding 15% share of the shares. This is the first successful PPPs project in port sector (The World Bank Group, 2016). Further to the author, this

successful transaction was led to the port in PPPs which is CICT's South Container Terminal in 2011 with the total investment of USD 500 Million. This was implemented as joint venture with China Harbor Engineering Company (CHEC) and SLPA. The initial entry of the private sector into port sector and formation of a competitive atmosphere through the South Container Terminal transaction represented as a catalyst for the growth and the expansion in the port sector. Furthermore, it helped to raise general port sector efficiencies and contributed to the growth in port associated supplementary services. Furthermore, now SLPA is in the planning stage for the third PPP concession for the East Container Terminal (The World Bank Group, 2016). Major PPP projects with investments over 50 Million USD in Sri Lanka in between 1999 and 2017 are given in Table 2.7.

Table 2.7: Largest PPP projects in Sri Lanka in between 1999 and 2017

Project Name	Sector	Financial Closure Year	Investment (USD Mn)
Colombo South Container Terminal	Ports	2011	500.00
Norochcholai Coal Power Plant	Electricity	2010	450.00
Kankasanturai Wind/Solar Power Plant	Electricity	2012	280.00
Colombo Port	Ports	1999	240.00
Colombo Port City Development Project	Ports	2014	1400.00
Hambantota port	Ports	2017	1700.00
Queen Elizabeth Quay (QE) terminal	Ports	1999	240.00
LAUGFS Liquefied Petroleum Gas Terminal	Ports	2017	120.00
AES Kelanitissa Power Project	Electricity	2001	104.00
Kerawalapitiya combined cycle	Electricity	2007	390.00
Broadlands Hydropower Plant	Electricity	2010	82.00
Thumbowila Waste to Energy Plant	Treatment	2017	105.00
Sampur Trincomalee power plant	Electricity	2010	75.00
Colombo Port Power Barge	Electricity	1999	72.00
Heladhanavi HFO Power Plant	Electricity	2004	62.00
Ace Power Embilipitiya	Electricity	2004	61.00

Source: (PPP knowledge lab, 2017)

Further to above table, there are numbers of independent power production projects have been implemented under Ceylon Electricity Board (CEB) mostly through PPP under BOO theme (The World Bank Group, 2016). Further to author, the policy decision was taken by the GOSL to develop all hydropower plants below 10MW capacities under the PPP approach, within which several minor hydro plants and other renewable power plants (winds, solar, mini hydro, thermal) have been connected to this system since 1996 (The World Bank Group, 2016).

Perera (2011), Appuhami, Perera and Perera (2011), and USAID (2016) stated that absenteeism of moral governance, inconsistent in political and macro-economic environment, absence of legal and regulatory framework, poor institutional framework, underdeveloped capital market and lack of social support and weak risk management strategies; are some shortcomings to ensure the successfulness of PPP projects in Sri Lanka. Furthermore, Asian Development Bank (2011) said that there is lack of a policy direction, and inconsistent policy has hindered growth in private investments. USAID (2016) stated that the enabling PPP environment lacks a strong and still requires additional capacity for undertaking PPPs. PPP enabling environment include legal and regulatory framework, Policy framework administrative framework and investment framework (Alfen, et al., 2009; Asian Development Bank, 2008; UNESCAP, 2017; USAID, 2016).

Therefore, the absence of legal framework for PPP in Sri Lanka led all of the specific of the PPP approach to be demarcated by the relevant partners during the tender stage and contract signing stage (USAID, 2016). Further to the author, this could threaten the PPP effort or root the GOSL to adopt to poor favorable conditions due to further risk observed by private party, especially for foreign stakeholders (USAID, 2016).

PPP legislation never existed in the GOSL. PPP is currently being executed in line to the 1998 Guideline on Private Sector Infrastructure projects (BOO/BOT/BOOT projects) Part II under the original procurement guideline. Even though the original guidelines were replaced by the Government Procurement Guidelines of 2007, they remain unpublished and have no force and effect (USAID, 2016).

PPP unit was initiated as the Bureau of Infrastructure Investment (BII) under Board of Investment (BOI) as a permanent office within the Ministry of Finance (MOF) to promote, facilitate and coordinate PPP efforts for the line ministries (UNESCAP, 2017). However, PPP unit is not well established and it is under development in Sri Lanka. PPP unit able to provide secretariat services to the PPP ministerial committee and contains responsibility to develop and disseminate PPP policy through the public and private parties (Sirimanna, 2016). Further to the author, PPP unit regulate the

PPP program to ensure these projects are established in line to policy, principles and procedures while contributing to the development of PPP projects.

2.4 Disputes in the PPPs projects

PPP contracts are long-term, thereby unforeseen constraints may arise; PPP projects are complex, where the contractual provisions may be subjected to interpretation, and disagreements are inevitable (Nathan Associates, 2017). For this reason, the clarity of the PPP contract is irreplaceable. Dispute mitigation strategies in PPP contract are important for the stakeholder. To propose the better dispute mitigation strategies to PPP approach, identification of dispute in PPP contract is significant. To get a proper perceptive of those disputes related to the PPPs projects, background study of the disputes in the construction industry is crucial.

2.4.1 Background of Disputes in the Construction Industry

The construction industry is very complex and competitive environment in which the participants with distinct interest, skills and expertise level work together (Cakmak & Cakmak, 2014). Moreover, the construction projects are fundamentally risky, unpredictable and most intricate of human initiatives. Therefore, it is possibly not unexpected that something frequently drives wrong (Kwakye, 1997). Therefore, unavoidably disputes are bound to occur. Generally, disputes arise due to the failure of project participants to fulfill their contractual obligations which impact unenthusiastically on construction projects (Kissiedu, 2009).

Some researchers refer the disputes as a simple disagreement, while others refer the disputes as the effect of rejecting claims (Kumaraswamy, 1997). Ren, Diekmann and Girard (1995) defined the disputes in common as "any contract question or controversy that must be settled beyond the jobsite management staff". Meanwhile, the Centre of Effective Dispute Resolution (2006) has defined the dispute as "any difference or dispute between the authority and the provider arising out of or in connection with the Contract". Anumba and Ogwu (2001) expresses that disputes result from the poor resolution of claims. While, Sinha and Jha (2019), argues that

disputes are arising from the conflicts, which are not managed and left unresolved by the contracting parties in the projects.

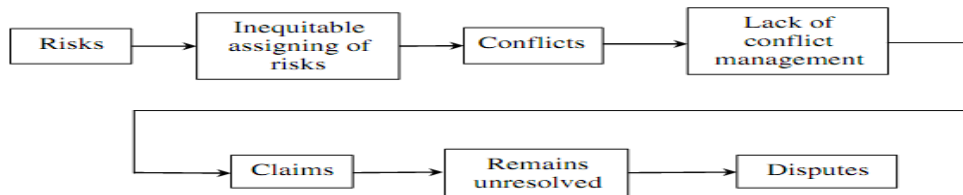


Figure 2.3: Stages leading to origin of disputes

Source: (Sinha & Jha, 2019)

Figure 2.3 illustrated the correlation between conflicts and disputes. Behind the each dispute, there are the sources of disputes in construction projects. The first step to effective dispute management is to identify the causes of disputes to develop and effective strategic plan on how to deal and address any dispute. Accordingly, Cakmak and Cakmak (2014) created summarized classification of disputes and the causes of disputes which determined by several researchers as depicted in Table 2.8.

Table 2.8: Causes of disputes by categories

Category of Disputes	Causes of Disputes
Owner related	Variations initiated by the owner
	Change of scope
	Late giving of possession
	Acceleration
	Unrealistic expectations
	Payment delays
Contractor related	Delays in work progress
	Time extensions
	Financial failure of the contractor
	Technical inadequacy of the contractor
	Tendering
	Quality of works
Design related	Design error
	Inadequate / incomplete specifications
	Quality of design
	Availability of information
Contract related	Ambiguities in contract documents
	Different interpretations of the contract provisions
	Risk allocation
	Other contractual problems
Human behavior related	adversarial / controversial culture
	lack of communication
	lack of team spirit
Project related	site conditions
	unforeseen changes
External factors	weather
	legal and economic factors
	fragmented structure of the sector

Source: (Cakmak & Cakmak, 2014)

Disputes are arisen based on the causes. The sources of disputes are categorized based on the nature and mode of occurrences. Thus, these facts take into account to understand the disputes in connection with PPP projects as well.

2.4.2 Disputes and Sources of disputes in Public-Private Partnerships (PPPs)

PPP arrangements are always contentious. Since the PPP approach habitually comprise numerous of complex legal arrangements and huge numeral of participants with diverse interests and complicated objectives, disputes are inevitable (Zou et al., 2014; UNDP, 2017). Specifically, lengthy contractual arrangement and extensive scope of services create PPP further complicated than other procurement approach (Zou et al.,2014).

Disputes can occur not only in the construction stage, but in the operations, rent, or transfer stages also in PPP projects. This is considered as foremost difference between conventional construction projects disputes and the PPP projects disputes. Therefore, the probabilities of disputes are much higher than the disputes in regular construction projects (Chou & Lin, 2013).

PPP scheme in the development of large infrastructure projects have not prevented disputes from occurring (Athanasakis, 2007). According to Akintoye, Beck and Kumaraswamy (2016), PPP has not been without major problems across the world. The long term nature of PPP, the variety of stakeholders and interested parties, public and private sensitivities, and different methodologies for resolving conflicts can result in frequent conflict and the potential for disputes (Delmon, 2017). The majority of disputes are rooted in the complex contractual provisions that surround the majority of PPP schemes (Boussabaine, 2007). Furthermore, the contract provision in the PPP agreement agreements are prone to different interpretations by numerous parties (Sinha & Jha, 2019).

Since the construction industry is associated with high risks, repetitive challenges for shareholders could results the project delays, cost overrun, poor quality (Abednego & Ogunlana, 2006; Cheung, 1999; Cheung, Suen, & Lam, 2002; Gebken & Edward

Gibson, 2006; Jones, 2006). The disputes may rise at both project level and the financing level between the shareholders. For examples, among public party and the private party or at the financing level between investors and the private party or among any of those parties and government due to political or economic events in the country (Chern, 2015). This research is focused the dispute between public and the private party since they are the main stakeholders of PPP and concession agreement will be in between those two only.

The misunderstandings, difference opinions and disagreements are inevitably arising among one or many shareholders throughout the lifespan of even the superlative planned infrastructure projects (Chern, 2015). The disagreements can arise over time schedule, cost and the quality (Leung, Chong, Ng, & Cheung, 2004). Apart from the cost and time, there are various factors which can lead to disputes (Thamhain & Wilemon, 1975). Those are the project priorities (Hope, 2012); human resources, and human behavioral disputes. Additional relevant cause is conflicting interpretation of contractual requirements due to individual or organizational biases or preferences (McCann, 2014).

The public and private partners regularly have distinct working method and diverse organizational cultures, which could cause friction. An absence in sharing of cross-organizational knowledge could arise and cause misapprehensions and discrepancy among partners. The political aspects of the PPP also might hinder its efficacy of succeeding governments over the lifecycle of partnership could manage it differently. Moreover, the demands and necessities of third parties such as insurers, financiers might also change, which could destruct the partnership (Currie & Teague, 2015).

The first step toward effective dispute management is to ascertain the causes of disputes. This enables the parties to produce an effective strategic plan on how to deal and discourse any dispute. Therefore, considering all these circumstances, the following Table 2.9 has developed to illustrate the possible disputes categories and related causes in PPP projects.

Table 2.9: Dispute categories and related causes of disputes

Dispute category	Related causes of disputes	Source
Land related	Delay in land acquisition	(Krishnaswamy, 2016) (Department of Economic Affairs [DEA], 2014) (Roy, Kalidindi, & Soundararajan, 2014)(Bodart, 2014)
	Delay in providing required land compensation	(Bodart, 2014)
	Inadequacy of compensation of land	(Osei-Kyei, Chan, Yu, Chen, & Dansoh, 2018)
	Restrictions on transfer of rights over public assets to private sector	(PPP World Bank Group, 2019)
	Land rent adjustment due to economic change	(Chou, 2012)
Design or Specification related	Design and scope changes	(DEA, 2014)
	Design error or quality of design	(National Audit Office [NAO], 2001)
	Inadequate / incomplete specification	(Bodart, 2014)
	Inadequate PPP scope limitation	(Bodart, 2014)
	Unavailability of information	(Bodart, 2014)
	Innovative design /Change in technology	(Wigley + Company, 2012)
Contract related	Inadequate pricing mechanisms	(Dimitrios, 2007)
	Ambiguity in contract documents or Contractual uncertainty	(Williamson, 1979) (Currie & Teague, 2015)
	Misinterpretation of contract term	(NAO, 2001)
	Unfair Risk allocation	(Bodart, 2014)
	Insurance and guarantee bond	(Chou, 2012)
	Ineligibility of contractor or subcontractor	(Chou, 2012)
	Contract termination	(Chou, 2012)
	Lack of clear lines of responsibility	(Dimitrios, 2007)
	Disagreements over responsibilities	(Harisankar & Sreeparvathy, 2013)(Bodart, 2014)(NAO, 2001)
	Non-performance of contractual obligation	(Bodart, 2014)(NAO, 2001)
	Breach of Contract by either party	(Bodart, 2014)(NAO, 2001)
	Payment issue	(Dimitrios, 2007)
Construction related	Repetitive amendments	(DEA, 2014)
	Construction delay/Time overrun	(Chou, 2012)(NAO, 2001)
	Cost overrun	(DEA, 2014) (Sheridan, 2009)
	Non-completion	(DEA, 2014)
	Poor performance	(NAO, 2001)
	Design defects or quality of service	(Chou, 2012)(Roy, et.al., 2014).
	Financial failure of the private party	(Chou, 2012) (DEA, 2014)
	Unavailability of resources	(NAVICANT, 2016)
Political Related	Unforeseen site condition	(NAVICANT, 2016)
	Technical inadequacy of the private party	(Roy, et.al., 2014).
	Inconsistencies in government policies	(Roy, et.al., 2014).
	Delayed in regulatory approvals	
	Expropriation or compulsory acquisition of project assets	
	Unlawful revocation / Breach of contract by government	
Changes in government	(NAVICANT, 2016)	
Interruption of the procurement process	(Bodart, 2014)	
Legal related	Changes in law or inconsistencies in legislation	(Roy, et.al., 2014)
	Corruption or lack of respect for law	(NAVICANT, 2016)
	Industrial regulatory change	(NAVICANT, 2016)
	Import and export restrictions	(NAVICANT, 2016)
Economic related	Changes in interest or foreign exchange rates	(DEA, 2014)
	Changes in tax	(DEA, 2014)
	Changes in debt Financing terms	(DEA, 2014)
Market and Revenue related	Unfavorable market conditions	(Krishnaswamy, 2016)
	Exceeded design capacity	(DEA, 2014)
	Revenue adjustment	(Chou, 2012)
	Uncertainty of tariff setting	(DEA, 2014)

	Fluctuation of material cost	(NAVICANT, 2016)
	Variable in forecasted equity's return or Extra profit	(Chou, 2012) (DEA, 2014)
Operation and Management	Changes in operating requirements or scope and quality	(Chou, 2012) (Roy, et.al., 2014)
	Changes in operation duration	(Chou, 2012)
	User dissatisfaction	(DEA, 2014)
	Operations cost overrun	(NAVICANT, 2016)
	Delays or interruption in operation	(NAVICANT, 2016)
	Inadequate safety in operation	(Roy, et.al., 2014)
	Failure of associated infrastructure and unexpected maintenance of infrastructure	
Asset ownership and transfer	Concerns of local residents' rights and interests	(Chou, 2012)
	Property ownership	(Chou, 2012)
	Noncompliance with the scope of transfer components	(Jihong & Xiaodan, 2017)
	Payment of final installment issues	(Jihong & Xiaodan, 2017)
Human behavior related	Poor communication	(NAO, 2001)
	Adversarial / controversial culture	(Cakmak & Cakmak, 2014)
	Lack of commitments or team spirit	(Cakmak & Cakmak, 2014)
	Lack of domestic skills in PPP	(NAVICANT, 2016)
	Lack of coordination	(Sinha & Jha, 2019)
	Bad anticipation parties	(DEA, 2014) (Bodart, 2014)
Environmental related	Unpredictable level of pollution	(Bodart, 2014)
	Force Majeure	(DEA, 2014)
	Public opposition of project	(NAVICANT, 2016)
	Conflicts in environmental clearances	(Sinha & Jha, 2019)

The most frequent dispute categories have been encountered in Table 2.9 for this study. It is observed that disputes and conflicts make significant impact on the success and the effectiveness of the PPP projects. Therefore, it is beneficiary to have clear understanding on the effects of disputes in PPPs projects.

2.4.3 Effects of Disputes in PPP projects

Disputes are the key factors which avert the prosperous attainment of the construction projects (Cakmak & Cakmak, 2014). When a project ends up in a dispute, the project will fail to meet its original goals and expectation. Furthermore, it can be led to project delays, uncertain team spirit, raise in the project cost and disrupt the personnel and professional relationships (Jaffar et al., 2011). Hence, the Client will suffer from high legal fees, delayed completion, and occupation and general dissatisfactions (Arms, 2011).

Numerous PPP projects commenced during past decades have failed due to disputes (Chou, 2012; Chou & Lin, 2013). There are projects that have been abandoned, renegotiated, taken over by government when they become unmanageable. Extreme cases of disputes are the major risk factors in PPP which led to the distress and

failure of several PPP projects (Osei-Kyei et al., 2011). Table 2.10 presents some of PPP projects experienced the disputes and have been distressed or failed completely.

Table 2.10: Examples of PPP project cancelled due to disputes

Project Name	Reason of Failure
Light Railway Transit (LRT) Project- the Metro Sul do Tejo (MST), Portugal	The project didn't proceed beyond the first phase of construction due to unclear risk-sharing mechanism, lack of supporting documents for contract management, no provision of contingency plans for emergencies, and lack of expert personnel for complex contract management (Tavares 2012).
Domestic Terminal at Murtala Muhammed Airport, Nigeria	Due to a lack of significant progress, the government decided to revoke and it was awarded to the second bidder. The company faced challenges in securing financing and had to start construction without a long-term finance model. On the operations side, airlines were reluctant to move to the new terminal owing to its small size. There were also disputes by parties and claims of breach of contractual rights (Nigeria 2012).
Panagarh-Palsit Highway Project, India	The construction phase was completed five months behind schedule. The delay caused by land availability issues and a change of scope orders. The Auditor General of India found consistent and major cracks, repairs and deflections values during the inspection. Ineffective structuring of the PPP agreement led to time overruns and insufficient quality (India 2012).
Lekki Toll Road Concession Project, Nigeria	Protest by local communities who were against paying tolls, which led to tolling suspension. Poor contract management and stakeholder communication within the government team was addressed. Also, a need to set performance standards backed by penalty regimes in the contract in order to ensure better quality of roads (Nigeria 2012).
Ghana National Housing Project	Lack of transparency and accountability in project parties, lack of cooperation among the stakeholders, public and political protest Experienced the disputes and has been distressed or failed completely (Osei-Kyei & Chan, 2015)
Bangkok Elevated Transport System at Thailand	Experienced the disputes and has been distressed or failed completely (Osei-Kyei & Chan, 2015)

Therefore, dispute mitigation mechanisms must be put in place prior disputes. Most of the time, the disputes are resolved in project stage. If it is not resolved, it will enter into claim stage and settle through huge dispute resolution board, arbitration, or finally by the courts which are costly and time consuming (Sinha & Jha, 2019).

However, not all disputes necessitate a costly and time consuming dispute management method if the handling method contains early warnings by predicting disputes, where the public and private party should enact proper disputes mitigation measures (Chou, 2012). Thus, while looking at the above evidence, it leads to the point that the proper dispute mitigating strategies in the management of the PPP project is vital.

2.5 Strategies to mitigate the disputes in PPPs project

The causes of disputes are not outside the control of projects participants. Those are depended largely on the primary strategic decisions taken on the project prior to commence the design, construction, and operation works of the facility (Iboh, Adindu, & Oyoh, 2013). Additional groundwork in preventive actions is beneficial to reduce the future struggles, costs and time of several parties throughout the dispute settlement (Chou & Lin, 2013).

Although most of the contract prescribe the suitable dispute resolution method, they, however do not provide required remedy to the damaged relationship among the parties after settle the disputes (Iboh, Adindu, & Oyoh, 2013). Thus, dispute mitigation strategies are to be taken proactively before the project starts or when a project is in the progress or before it turns it into the dispute level. The main approaches in dispute mitigation for conventional contracts are applicable to PPP Contracts too. They all have the common goal of mitigating disputes and providing formal or informal assistance with the aim of preserving the relationship between the parties (Bodart, 2014). However, additional ground work is to be done to mitigate the disputes in PPP contract due to its nature and characteristics. Furthermore, while preserving its privilege, the government has the rights to regulate in accordance to changing economic or political circumstances and it possess certain control over sectors regarded as sensitive or strategic concern while benefiting from the know-how and capital of investors (Bohmer, 2010).

2.6 Chapter Summary

This chapter reviewed the literature on the nature and key features of PPP, forms of PPP, contractual arrangements, stakeholder's responsibilities and overview of the PPP in Sri Lanka. Moreover, chapter presented literature on disputes in PPPs projects, and causes behind the identified disputes in relation to categories of disputes in PPP projects and effects of disputes. Finally, it has reviewed the overview of mitigation strategies in PPP projects with the review of existing journals, books, conference papers and other articles related to the subject area.

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the research methodology which leads to investigate the strategies to mitigate the disputes in PPP infrastructure projects in Sri Lanka. Accordingly, this chapter presents the research process, research approach, and research techniques. Moreover, it explains the data collection tools and data analysis techniques.

3.2 Research Process

Research process contains the series of actions or steps necessary to effectively carryout research and desired sequence of those steps (Kothari, 2009). Figure 3.1 illustrates the research process of this research.

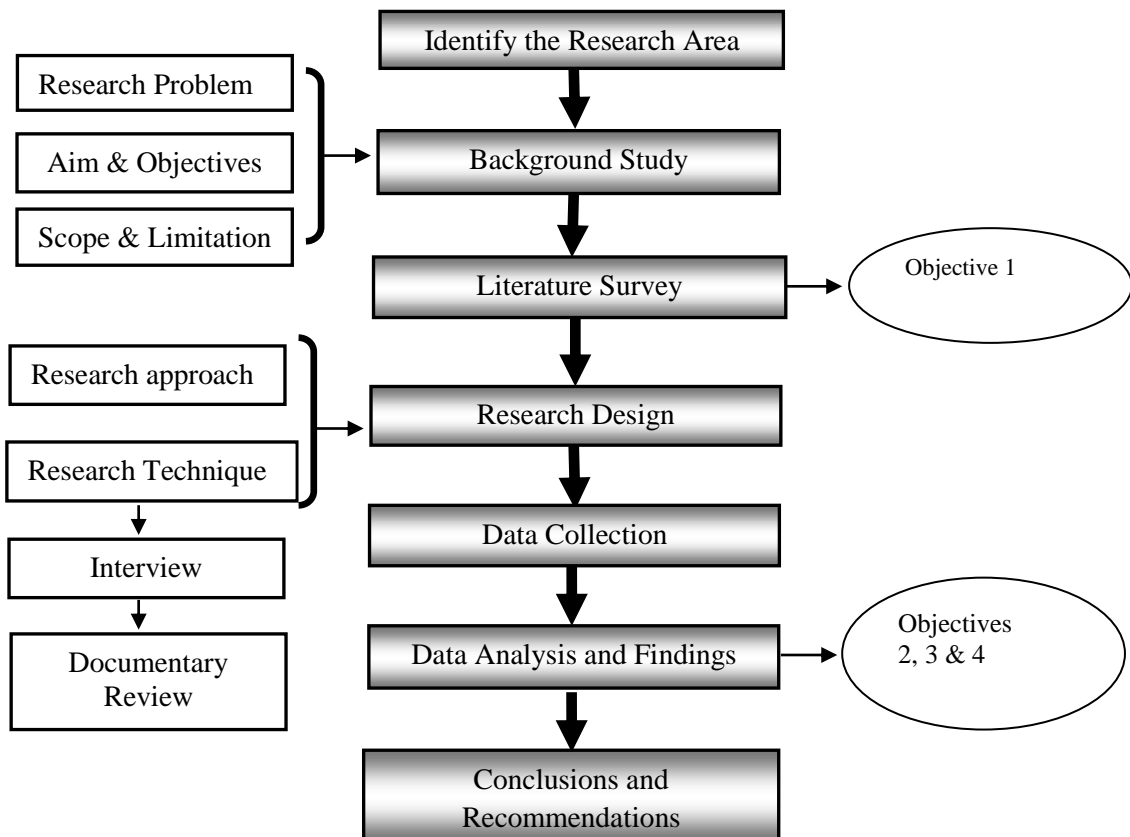


Figure 3.1: Research Process

3.3 Research Approach

The research approaches shall be categorized primarily into two; such as qualitative and quantitative (Dawson, 2002). Quantitative research approach inclines to narrate to positivism and pursue to collect factual data. Moreover, it examines the relationship between facts and how such facts and relationship consensus with concepts and outcomes of any research done before (Fellows & Liu, 2003). Furthermore, qualitative research approach is concerned with subjective assessment of attitudes, opinions and behavior where researcher would examine the entire population as groups or individuals and would classify the opinions, understandings, views, beliefs of people and scrutinize them to discover the solutions (Fellows & Liu, 2003). Whereas quantitative research approach intends to create use of huge samples and statistical measures to state whether the predictive generalizations of a concept hold true, qualitative research approach naturally utilizes lesser samples and looking to comprehend social phenomenon from diverse perceptions.

The mixed method research approach is both qualitative and quantitative approaches in a single study, in which the researchers collect and analyze the data, combine the outcomes, and draws inferences (Creswell, 2003).

This study aims on how to mitigate the disputes in PPP infrastructure projects in Sri Lanka. Qualitative research approach will be the most appropriate one to use to this study since it provides the researcher to do an in-depth investigation using limited sample available in Sri Lanka.

3.4 Research techniques

It is necessary to select the appropriate research techniques once selection of research approach has been done. Research techniques can be categorized into two key areas such as data collection techniques and data analysis techniques. Semi-structured interviews, and document review were adopted as the more reachable and reasonable data collection tools. Causes and effects diagrams and content analysis were used as the data analysis techniques.

3.5 Data collection techniques

Interviews using semi structured interview guideline were conducted among the personnel who are expertise in PPP infrastructure projects in Sri Lanka to identify the disputes and sources of disputes and the mitigation measures of such disputes in PPPs infrastructure projects in Sri Lanka. Furthermore, document reviews also were adopted since the most accessible and realistic data collection tool when considering the nature and circumstances of the research.

3.5.1 Semi-structured interviews

Interviews using semi structured interview guideline were considered as ideal since it provides focussed responses and provokes further elaborative from the respondents. In addition, semi structured interview guidelines permit the investigator to question additionally on any interested or unanticipated answers to the formatted questions (Mitchell & Jolley, 2009). Moreover, Klenke (2008) elucidated that this type of interviews facilitate flexibility to researcher and it reduces biasness and irrelevant responses to the follow up questions. A huge segment of data has been collected from the professionals who have expertise in PPP infrastructure projects in Si Lanka. Utmost of the interviews were voice recoded (with the consent of the respondents) together with noted down to avoid data loss. Data has been collected as per the sample interview guideline attached herewith in Appendix C. A sample interview transcript is attached in Appendix D. The actual name of interviewee and organisation were not revealed in order preserve confidentiality.

3.5.2 Document reviews

Documentary review is a method of data collection for archival research approach, which incorporates the historical data to support the arguments in a research (Bowen, 2009). Further, Bowen (2009) emphasized that the process of documentary research often involves some or all of conceptualizing, using and assessing documents. Therefore, documentary review has adopted as the secondary data collection technique to this research. Accordingly, the reviewed documents for this research are

progress presentation, early warning notices, contract document and Land Law of Sri Lanka.

3.6 Data analysis

After the development of interview transcripts, main themes were identified from the findings within each interview and in depth studies were conducted. Content analysis is a data analysis technique, which codifies qualitative data into predefined categories in order to derive patterns in the presentation and reporting of information (Guthrie, Petty, & Yongvanich, 2004). Therefore, code based content analysis have adopted to analyze the data to this research to capture substantial outcomes from the transcripts of interview and for actual interpretation of data. The QSR NVivo computer software has been used to simplify the effort related to the content analysis.

The treatment of root causes of disputes will be the most effective way to mitigate the disputes in PPP project. Therefore, root causes have been observed from cause and effect diagrams for each and every cause of disputes from the analysed data as shown in the cause and effect diagram attached in Appendix B, and mitigation strategies have been proposed accordingly.

3.7 Chapter Summary

This chapter elaborated and justified the adopted research methodology to this study. Qualitative approach was adopted as the most suitable research approach for this study. Interviews were conducted using semi-structured interview guidelines from expertise in different construction industry practitioners who have experience in PPP infrastructure projects. Apart from this, documentary review also selected as the secondary data collection technique to achieve the effectiveness. Cause and effect diagrams and content analysis technique were adopted as data analysis techniques. The next chapter elucidates the findings of the research.

4.0 DATA ANALYSIS AND FINDING

4.1 Introduction

This chapter deliberates the outcomes of the expert interviews and document review in detail in accordance with the methodology. The interview was conducted amongst the parties who worked in PPP infrastructure projects in Sri Lanka. The selected participants for the interviews are mainly from public sector, private sector, and other parties such as legal officers and quality representatives.

4.2 Participants Profile

The interviews were conducted among twelve participants who worked with PPP projects in Sri Lanka for the purpose of collecting data. According to literature review, the PPP agreement is mainly formed between public party and the private party. Private party may experience lot of disputes within their consortium. However, this research study focused on the disputes in between the public and private party. Therefore, the participants were selected mainly from both parties. Moreover, the legal officers and quality representatives also were selected for this study, since the legal officers are the expertise in the area of disputes and its resolutions; and the quality representatives are the professionals who are well known to the PPPs projects from the both parties.

Table 4.1 demonstrates that the profile of selected participants. According to Table 4.1, the research focuses the views of public party, private party, and other participants such as legal officer, quality representatives. The selected participants have expertise in the PPP projects operating in Sri Lanka, in which, three out of twelve respondents have experience in local funded PPP projects, whereas nine out of twelve respondents have expertise in foreign funded PPP projects.

Table 4.1: Profile of selected Participants

Selected Parties	code	Designations	Experience		Roles	Involved PPP projects
			Total	In PPP		
Public party	PB1	Project Director & procurement consultant at MOF & earlier ADB	35 years	20 years	Consultation in PPPs projects including procurement, bidding document preparation, structuring and preparation of financial model, conducting negotiations	Several Mini Hydro Projects, Several thermal power hydro projects, Several infrastructure development projects, port development projects, Combine cycle power plant and diesel power plant (BOT/BOO type)
	PB2	Direct Investment Adviser	23 years	10 years	Handling investment related issues, negotiating with investors, evaluating investors capacity, provide duty free facilities for the imported to the project	Land reclamation and infrastructure development projects, port development projects, Container terminal projects
	PB3	Deputy Project director	20 years	3 Years	Acting as project director for reclamation, coordination on behalf of ministries, administration, investigation	Land reclamation and infrastructure development projects
	PB4	Program Director	35 years	1 Year	Consultancy services, coordinating all the PPPs projects on behalf of NHDA, certification including payments	Several PPPs type of housing units projects
	PB5	Deputy project director	30 years	5 years	Procurement, coordinating developer's design work, supervising and regulating the developer	Several PPPs type of housing units projects
Private Party	PR1	Chief Quantity Surveyor	15 years	3 years	Quantity Surveying roles in Pre-contract and post contract stage	Several PPPs type of housing units projects
	PR2	General Manager Finance	26 years	8 years	Negotiate with authorities, mainly on the taxation, investment amount, and concession of PPP Company based on the investor's requirement	Port development projects, Container terminal projects
	PR3	Senior Quantity Surveyor	5 years	5 years	Quantity surveying, involved with contractual matter during	Land reclamation and infrastructure development projects
	PR4	Director	26 years	20 Years	Designed the PPP models for several projects from developer side	Several hydro power projects, Several PPPs type building projects
Others	LO1	Attorney at Law/Consultant (ADB)	8 years	8 years	Drafting of the PPP agreement, advising on disputes, advising to the parties on their rights and obligations, negotiating PPP contract terms	Land reclamation and infrastructure development projects, waste energy project, Road constructions, power purchase and power generations projects
	QR1	Project manager	15	3 years	Jointly Appointed Quality Representative, to review all the design and construction work and contractual work under the tripartite agreement	Land reclamation and infrastructure development projects
	QR2	Act. project manager	10	3 years		

4.3 Documents reviewed

The documents review has adopted as secondary data collection techniques to this study. Accordingly, the reviewed documents are progress presentation and early warning notices of housing projects, contract document of land reclamation project and Land Law of Sri Lanka.

4.4 PPPs projects that the interviewee involved in Sri Lanka

There are several PPP projects operating in Sri Lanka under various government institute such as Urban Development Authority (UDA), Sri Lankan Ports Authority (SLPA), Road Development Authority (RDA), Ceylon Electricity Board (CEB), Board of Investment (BOI), National Water Supply and Drainage Board (NWS&D), Aviation Authority, Ministry of Mega Polis, National Housing and Development Authority (NHDA) to name a few (PB1, PB3, PB4, PR2, PR4 and LO1). In most of the PPPs projects, GOSL has given the land as their share, and funding has been arranged by the private parties, basically, through loan financing, debt financing, equity financing, supplier credit and development financing. Most of the Sri Lankan PPP infrastructures were financed by Asian Development Bank (ADB), Japan International Cooperation Agency (JICA), China EXIM bank and local banks etc.

PR2 and PB1 highlighted that Sri Lanka has successful PPP track record in implementing without any failed transaction in port sector. Sri Lanka is the South Asia's first country to structure the BOT model in port sector. The successful transaction of the project of "Queen Elizabeth Quay" was led to the port in PPP, which is CICT's South Container Terminal. The initial entry of the private sector into port sector and formation of a competitive atmosphere through the South Container Terminal transaction represented as a catalyst for the growth and the expansion in the port sector.

PR2 mentioned that Colombo South International Container Terminal is the BOO type of PPPs. This was implemented as joint venture with CHEC and SLPA. The projects consist the land reclamation and constructions of terminal and commenced

on 2011 and five years' contract period for construction; however private party completed earlier than five years and commenced operation in 2013. Now the project is in the operational stage.

According to PB3, PR3, LO1, QR1 and QR2, Port City development project Colombo is the special type of project which is off-shore land reclamation and development of a city. The negotiation began in 2012 and continued for next two years over various aspect of deal. Thereafter, the concession agreement signed in 2014 between SLPA representing the GOSL as the counterparty and CHEC, consequently the construction also commenced at 2014. This project contains, stage I (land reclamation), and stage II (infrastructure development). Stage I is already completed and Stage II is initiated. The Ministry of Urban Development, Water supply & Housing facilities act as the Public party. The GOSL gave the sea bed for reclaim and sand extraction sites as their share and provided the utility facilities up to the port city boundary. Port city project is the only PPP project that is monitoring by 26 government agencies. GOSL is the owner of the land, and leased it out to private party for 99 years. Private party will transfer to GOSL after 99 years.

According to PB2, Hambantota port project has given to a Chinese company to operate and develop. SLPA have 15% stake and the Chinese companies having 85% stake. Form of PPP is to operate and transfer. GOSL can get it back after 70 years.

In addition to this, there were many PPP projects in Sri Lanka in power sector and lots of independent power producer projects have implemented in PPP model under BOO basis. Several mini hydro power projects, thermal power hydro projects, wind power and solar power projects, combine cycle power plant and diesel power plant are operating under the PPP arrangement in Sri Lanka. Most of the below 10MW projects are PPP projects, mainly, private sector signed the agreement with CEB saying generator power will be bought by the CEB (PB1, PR4 and LO1).

Moreover, there were number of housing units implemented under PPP approach as stated in the progress presentation of NHDA, PB4 and PR1. Accordingly, GOSL provides suitable lands and provide services up to site. The private party invest,

design, construct, and market and sell housing units. GOSL has established a program coordinating unit (PCU) under the Ministry of Urban Development, Water Supply and Housing Facilities. NHDA is acting as a public party on behalf of GOSL. Private party will invest until collect the money from buyers. That money will be sent through the Escrow account, which is the joint account with the private party, NHDA and the bank. Whenever the project’s milestone is achieved, the private party claim progress bill which is certified by consultant and sent to the bank, thereafter, the bank makes the payment to the private party. This scheme contained several infrastructure facilities too. After completion, private party have to conduct one-year maintenance and hand over the project to public party. Under this concept, NHDA have launched four projects, such as ‘Green Valley’ housing project at Panagoda, ‘Mount Clifford’ housing project at Homagama, ‘Sea Breeze’ housing project at Wadduwa and ‘Lavanya Heights’ housing project at Ragama. These are Build and Transfer (BT) type of project. Procurement arrangement was based on the design & build; SBD4; Lump Sum contract.

Therefore, the results of this research are based on the experts who have multiple PPP projects experience in multiple sectors. The following section discusses the responses to questions under identification of disputes in PPP projects in Sri Lanka.

4.5 Content analysis for interviewed data

The content is alienated into main themes based on the objectives of the research and content analysis is carried out for every theme. Figure 4.1 demonstrated the formation of the selected theme. The factors acknowledged under every theme was prearranged and assisted by NVivo computer software. The respondents’ quantity and the numbers of references have also been shown along with them.



Figure 4.1: Structure of the themes

4.6 PPPs nature and it's arrangement for disputes

All construction projects are prone to disputes, however, the projects procured through PPP arrangement is more vulnerable to disputes due to its nature and characteristics. The literature survey found some of the common features of PPP projects. Hence, it is essential to understand the PPP nature and its characteristic contribute to the disputes occurrences in Sri Lanka. Figure 4.2 illustrated the responses of the respondents with regard to PPPs' characteristics, which lead to the disputes.

Characteristics	Number of Responses	Total Occurrences
PPPs nature and its arrangement for disputes occurrences	12	46
Involvement of two or (more) parties	9	9
Resourcing or Contributes of each participants	9	9
Each participants tried to be a principal	8	8
Nature of sharing responsibilities and risks	8	8
Long-term nature of PPPs projects	6	7
Complex contractual arrangement of PPPs	4	5

Figure 4.2: PPPs characteristics which lead to the disputes

4.6.1 Involvement of two or (more) parties

Out of twelve, nine respondents mentioned that most frequent disputes occurred in PPP projects are due to involvement of two (or more) parties. PB1 and PB3 explained that the parties involved in PPP projects are mainly two, those who are the public party and private party. However, public party might contain the numbers of institutions itself; such as ministries, line ministries, finance ministries, UDA, CEA, water board, CEB, regulatory authorities and other relevant government agencies. The different government institutions have different rules and regulations for its own, which are not interconnected to each other in Sri Lanka. Therefore, dealing with several institutions is difficult, especially for the foreign private party. Meanwhile, the private party have multiple stakeholders; such as, contractors, financiers, insurers, bond fellows and rate fellows. Furthermore, as per the several respondents, public and private parties have distinct of interest, where the public party focuses on quality of service as well as environment aspects and private party focuses to maximize the profit. Therefore, when there are differences in opinion and intention, the conflicts are bound to occur or likelihoods of disputes occurrences are high (PB1,

PB2, PB3, PR1, PR2, PR3, QR1 and QR2). However, respondents PB5, PR4, and LO1 point of views are since there are two or more parties in any type of contract, these will not be any special reason for the disputes occurrences in PPPs projects. However, as a violation to above point, PB4 asserted the following in his words, *“PPP nature, which is combine with lots of parties, and agreement also with lot of parties, where it is very difficult to terminate the contract in any worse scenario of disputes. But, if the contract between two parties, it is very easy to terminate the project in case of any worse situation of disputes”*. Therefore, according to majority of respondent’s responses, the involvement of multiple parties in PPPs projects will lead to the disputes in Sri Lanka.

4.6.2 Resourcing or contribution of each participants

Another significant feature in PPPs is that each participant needs to contribute something to have the genuine relationship to the partnership. ‘Resourcing or contribution of each participant’ is the contractual obligation of the parties to the PPP project, which is also the main factor to the disputes occurrences. However, LO1 and PR1 declared that there are no disputes due to resourcing. Further to this, LO1 mentioned that *‘generally PPP projects are very clear with regard to parties’ obligations. If the state has to give land, then all associates work related to land, such as; land clearance, acquisition, site clearing, legal arrangement and all the regulatory approvals should be done by the public partner. Then the obligations are generally understandably, reasonably clear, unless there are changes in policy”*. There is therefore no dispute occurring, if the parties meet their contractual obligations in terms of resources. However, out of twelve, nine respondents demarcated that there were disputes due to non-performance of contractual obligation with regards to resources, especially from public party due to the lacks of fund, material scarcity and changes in policies. Respondents PB2, PR3 and QR1 mentioned that if one party is not contributing his best to the project, or either other party is not happy with it, there are chances for the disputes occurrences. To give the proof of evident to this, PB4 mentioned that, one of the project came to dispute level due to unavailability of funds from private party, where other resources also have

been affected, finally project delayed. PR3 also mentioned that, there were disagreements on the contractual obligations with regard to resources in one of the famous project in Colombo, where the GOSL has been agreed to provide the entire utility facilities to the project, however abandoned later on due to lack of funds, and agreed to provide the facilities up to the boundary of the project, hence projects delayed and dispute arose within the parties.

Furthermore, PB3 stated that, the resources may not only be limited to the material, it can be intellectual properties such as knowledge, skills, rules and regulations, authority etc., which should be perform well. Since the PPPs concept is new to the Sri Lanka, lack of knowledge on PPPs or inadequate experience is always there among the project participants. Hence, sufficient contributes from both party in the form of material or other cannot be highly expected in Sri Lanka; therefore, the disputes are bound to occur in terms of resourcing.

4.6.3 Each participant tried to be a principal

Each participant tried to be a principal is the other major factors, which contributing to the disputes occurrences in PPPs projects. According to the literature survey, each participant in the PPPs projects need to be a principal and each participant to be a competent of bargaining on its own behalf instead of referring back to the other authority sources (Peters, 1998). Ultimately, this caused the disputes in Sri Lanka. Because, basically, GOSL take upper hand always as mentioned by the eight respondents out of twelve. Further, PB1, PB2, PB3, PR2, PR3, LO1, QR1, and QR2 revealed that public party domains in most of the cases since they have the legal power, authority, etc. At the same time, private party also tries to be a principal since they come with investment, and by showing that, they ask more concession and also always think that public party should relax them in every aspect, which is not happening in Sri Lanka. Therefore, it can be said that ‘partnering approach’, which is the ultimate theme of the PPP concept is not properly preserved in Sri Lanka, eventually this will cause the disputes in Sri Lanka.

4.6.4 Sharing risks and responsibilities

Other significant features of PPPs for cause of disputes, which identified by eight respondents out of twelve is complex nature of sharing risks and responsibilities. PR4 stated that sharing of risk and responsibilities are really complex nature when it's compare to conventional procurement method, since the PPPs involves various stages such as financing, design, construction, operation, maintenance, revenue generations etc. PB1 also affirmed that *"There are complexities in sharing risks and responsibilities. Some of risks we have addressed in the agreement. However, some of risks are not addressed. The risks, which were not addressed, and when it happens, we don't know what to do"*. Further to this, PB5 mentioned that, *"in principle of PPPs, risks are shared and the responsibilities are well understood. However, there is scope which is not well understood at the beginning. Therefore, if unknown risks are identified in later, then there will be disputes"*. Even though the PPPs contracts are supposed to specify the details of risks, which is to be transferred to private partner, in reality, drafting complete contract agreements that cover all the aspects is to be problematic due to several uncertainties, respondents affirmed. It is frequently happening when there are any unforeseen uninsurable events due to national security or if the PPPs termination by outsource or when the government change the law, or political instability, or lack of legal and regulatory framework, etc. Furthermore, respondents QR1, PB2, PB3, PR2 and PR3 also declared that the disputes occurred in case of any contradictory of owning of the responsibility and risks.

4.6.5 Long-term nature of PPPs

Another feature of PPPs for cause of disputes is long-term nature of PPP project. However, the respondents PB3, PR3 and LO1 declared that long-term nature will not impact for the disputes occurrence, where if the parties should foresee the matrix of the contract clauses and cater the changes and if those included in the contract. Moreover, they said that in terms of any changes in legal aspects or government or policy, etc., the cause of action should be in place in the contract. However, the six

respondents out of twelve endeavoured to convey several ideas regards to 'long-term nature' based on Sri Lankan context. One of those is unpredictability. Sri Lanka has very frequent variables in nature, political, economic conditions, external environment, demand for the projects, public opinion of the project etc. Unless otherwise establish the strong PPPs environment or develop strong PPPs framework or strong successful government in Sri Lanka, the predictability of such changes and incorporating into the contract is difficult. Moreover, since the PPPs is new to Sri Lanka, proper knowledge or experience on the PPPs system for the professional who handle the PPPs is very less and which will diminish the quality of contract drafting. Therefore, it is able to say the 'long-term nature of PPP project will impact on the disputes occurrences based on the Sri Lankan context due to the high levels of uncertainty.

4.6.6 Complex contractual arrangement

Another feature of PPPs for cause of disputes, specified by four respondents out of twelve, is complex contractual arrangements of PPP projects. Respondent PB1 and PB4 explained that, there are disputes arose by issues related with complex contractual terms due to the complexity since there are multiple parties and institution with distinct rules and regulations, multiple documents and agreements. Further to this, QR1 and QR2 specified that, since it is new to Sri Lanka, PPPs is a different and complex type of contract to handle unlike the general contract. It is mainly due to insufficient knowledge and practices in the PPPs arrangement.

Therefore, in a summary it is clear that the PPPs nature and its characteristics are also the reasons for the disputes occurrences in PPPs projects in Sri Lanka. Moreover, it can be concluding that multiparty participation, contributes of each participant, each participant tried to be a principal, complex nature of sharing responsibilities and risks, and long-term nature are the main contributing factors to disputes occurrences in PPPs projects. Considering all those special features, next section leads to identify the disputes in the PPP projects in Sri Lanka.

4.7 Disputes in PPPs in Sri Lanka

In the Sri Lankan perspective, PPP is a new trend of procurement for developing the public infrastructure. PR3 revealed that, the PPP concept remains bit vague for the country or the operators who conduct PPP in the current environment of Sri Lanka. Therefore, that kind of few adjustments can be a problem for the PPP than the conventional system, in which the people are not more familiar with procedures and conditions. Accordingly, the probability of having disputes are high. Interview results demonstrated major dispute categories which were identified in PPP projects in Sri Lanka based on their nature and mode of occurrence. Figure 4.3 illustrates the responses of the participants with regard to categories of disputes in PPP projects.

Name	Files	Reference
Disputes in PPPs Projects in Sri Lanka	12	84
Categories of disputes in PPPs projects	12	84
Contract related disputes	11	11
Political related disputes	11	11
Human behaviour related disputes	11	11
Design or specification related disputes	10	10
Construction related disputes	10	10
Land related disputes	8	8
External or Environment related disputes	8	8
Legal related disputes	5	5
Economic related disputes	4	4
Market and revenue related disputes	4	4
Operation and management related disputes	1	1
Asset ownership and transfer related disputes	0	0

Figure 4.3: Coding structure of major disputes categories

PPP scheme in the infrastructure projects has not prevented from disputes occurring (Athanasakis, 2007). Hence, the higher likelihood of disputes in the PPP projects in Sri Lanka was identified as per the respondents' responses. It indicates that, disputes in contract, political and human behaviour are the mostly likely to occur in which eleven out of twelve respondents have responded.

The next most frequent disputes occurred are in the areas of design or specification related and construction related, where ten out of twelve respondents have responded. In addition to this, land related and external or environmental related disputes also identified as most frequently occurred disputes, where eight out of twelve respondents have responded. The next most common disputes occurred in

legal related areas where, five out of twelve respondents have responded. Moreover, four out of twelve respondents have responded to the economic and market & revenue related areas in which four out of twelve respondents have responded.

Additionally, PPP project disputes mainly arise during the construction phase and during the phases of operating, renting, or transfer. However, only one out of twelve respondents have responded to the ‘operation and management related disputes’ and no response acquire for the ‘asset ownership and transfer related disputes’. The operation period of the PPP projects is significantly long compared to construction period. In addition, most of the selected respondents have less experiences in the operation stage and transfer stage, since most of the PPP projects in Sri Lanka are still under constructions or in operations stage, whereas the projects did not come up to transfer stages yet. Considering these facts, the ‘operations and management related’ and ‘asset ownership and transfer related’ disputes have been omitted to discuss in this study and the limitations also have been incorporated accordingly.

Accordingly, most responded area of disputes existed in PPP projects based on the present study is contract, political, human behavioural, design or specification, construction, land and environmental. However, the most influential disputes categories will be identified based on following sections. The next section investigates the causes behind the identified disputes in this section.

4.8 Investigation of causes behind the disputes along with the mitigation strategies in PPPs in Sri Lanka

Behind the each and every dispute, there are root causes in PPP projects. This section discusses about the responses of the respondents with regard to the root causes behind of each major category of disputes and its mitigation strategies in PPP projects. Appendix A indicates the summary of causes of disputes and its mitigation strategies which the respondents have responded. Figure 4.4 illustrates the causes and effect diagram for PPP disputes. It further identifies the root causes for the each and every category of disputes based on the cause and effect diagrams as shown in the Appendix B.

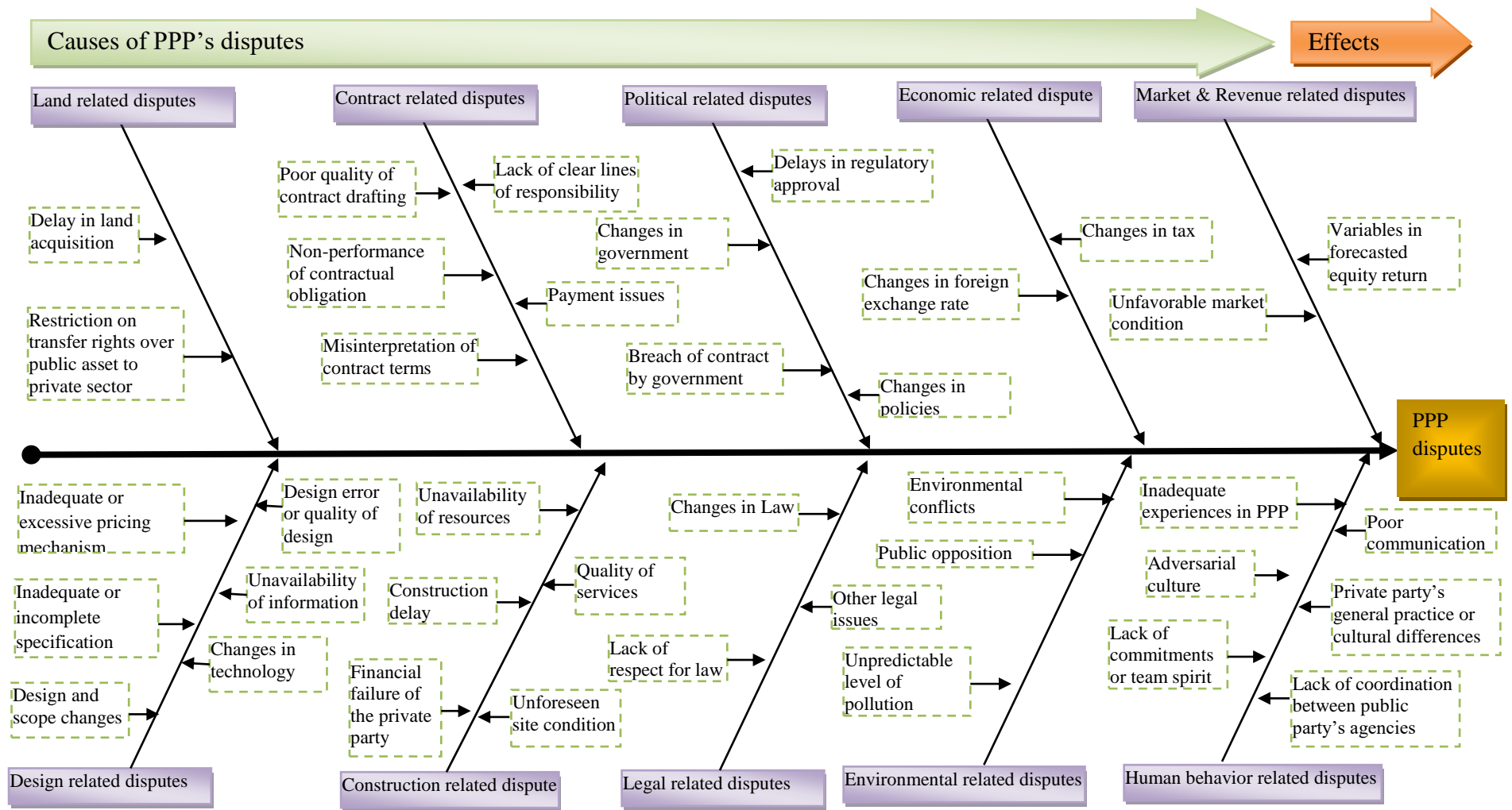


Figure 4.4: Causes and effect diagram of PPP's disputes

4.8.1 Land related disputes

As per the most of the respondents, the land related disputes are frequently occurred in PPP projects since the most PPP projects are likely being required the land. PB5 mentioned that, lands are acquired by UDA in Sri Lanka for public services. UDA, being government institution, have sole authority to takeover any land for public purposes subjected to the required compensation. Figure 4.5 shows the respondents' responses with regard to causes behind the land related disputes in PPP projects in Sri Lanka.

Land related disputes	8	18
Delay in land acquisition	7	7
Restrictions on transfer of rights of public to private sec	3	3

Figure 4.5: Causes of land related disputes

- **Delay in land acquisition**

Seven out of twelve respondents have responded for land related disputes likely being occurred mostly due to the delay in land acquisition, during which the concession is signed without acquire the total required land for the project. Respondents endeavoured to convey several reasons regards to 'delay in land acquisition' based on Sri Lankan context. Some of those are; litigation and court proceedings (LO1), policy changes (LO1), environmental issues where respondents had to wait for the EIA clearance (LO1 & PB1), bureaucracy or procedure to be followed by private party in the public sector agency (PB5 & LO1), land encroachment by general public due to poor communication of public party with the general public (PB3, PB5 & PR1) and insufficient fund from the public party to provide the required land compensation for the parties (PR4 & PB5). According to respondent PB2, there was long delay in land acquisition in one of the popular off-shore land reclamation project in Colombo. Further he said that, *"Since the land reclamation is the first time in Sri Lanka, there is no procedure to acquire the reclaimed land. The reclaimed land is close to the Colombo city, but not in Colombo city. Therefore, the existing procedure cannot be followed. Hence, the parties first required to develop the city to include under the*

system to acquire. Thus, parties had to wait until develop the city". Therefore, long delay is caused due to unavailability of legal provision to acquire the reclaimed land in Sri Lanka. It was identified by public party after commence the project. It seems that the project had no proper feasibility study. Therefore, according to PB2, comprehensive feasibility studies to be completed before start the project and GOSL have to develop the legal framework for the land reclamation type of project before start.

PB3 mentioned that, delay in land acquisition occurred in same land reclamation project in Sri Lanka due to ownership clashes within the public party's agencies. "*Since the land was newly created by filling the sea area, the legal department had to find the owner for this land within the public party whether coastal conservation department, or land ministry, or Colombo municipal council*". Therefore, there were conflicts between the government's agencies regard to ownership and which caused delays for the project execution. The root cause for this issue is improper feasibility study, lack of legal provisions, lack of clear lines of responsibilities within the public party's agency, and lack of coordination among the public party's agencies. Therefore, according to PB3, comprehensive feasibility studies to be done by obtain experts' advice and improvement of clear lines of responsibilities are vital. Moreover, GOSL have to have the master plan to absorb these kinds of PPP projects.

PR4 also mentioned that one of the projects failed due to delay in land acquisition due to ownership issues where the feasibility study was not done properly. "*The contract was awarded without acquire the land for one of the power purchase project by thinking that GOSL is the owner of the land, but actually, land was not belonging GOSL. Then the GOSL had to go back for acquisition procedure, which is lengthy in Sri Lanka. Thus, there was long delay. Since the contract is awarded already, private party had to pay interest and all. Thus, investors went back and project failed*". Therefore, proper feasibility study is vital before entering into the tendering.

It is the public party's responsibility to give clear land to the private party before entering into the tender (PB1, PB2, PB3, PB5, PR1, PR2, PR4, & LO1). At the same time, PB2, PB3 and PR2 mentioned that, it is private party's obligations to obtain all

the necessary permits regards to land clearances, environmental clearances, etc., before commence the projects. The significant example is mentioned by PB2 in one of off-shore land reclamation project; where private party started the project without obtain the Coast Conservation Department approval for sand mining. They, however, started the works with initial principle approval given by CEA to go ahead. Thus, the project was suspended by new government for long time on the ground of environmental violation. Therefore, obtain all the necessary permits before start the project is vital to minimize the unnecessary time overrun and prolongation cost.

- **Restriction on transfer of ownership rights**

PR2, PB2 and PB3 stated that, there was a major problem regard to transferring of ownership of the land to the private party in the land reclamation projects located in Colombo. PB2 mentioned that concession agreement entitled the private party to 20 hectares of marketable land of Sri Lanka on the free grant basis, which is wrongly decided by the one of the former GOSL. However, it was a controversial provision among the Sri Lankan public as well as geopolitically and media reports also showed the opposition to this decision. As a result, and after changes of government, GOSL introduced new legal restrictions as “the transfer of title of any land situated in Sri Lanka, shall be prohibited if such transfer is to a foreigner” according to the Act, No. 38 of 2014 (Restriction on alienation) of land law of Sri Lanka, before signing the concession agreement officially. Therefore, GOSL decided to convert the freehold land to lease hold land for 99 years as per the new restriction. According to respondents, the legal restriction has been introduced after commencement of the project, however, before officially sign the concession agreement. This shows, the public party had inadequate due diligence. Therefore, comprehensive due diligence studies being done with regard to the applicable regulations and necessary regulatory requirements are to be provided by the public party to the contract very comprehensively. Moreover, policies must be discussed, negotiated and agreed beforehand. The main reason for these issues is unavailability of PPP legal and regulatory framework and master plan to absorb the PPP projects in Sri Lanka. Therefore, there is a need to develop the strong enabling environment for PPP in Sri Lanka.

Moreover, LO1 and PB5 mentioned that, “*land matters can be closed up by proper compensation*”. Therefore, adequacy of compensation for land to be sanction to affected parties to mitigate the disputes. However, GOSL is experiencing financial burden, thereby, GOSL have to find the good investors, where strong investment framework for the PPP project have to be developed to attract the good investors.

Based on the analysis and effect of disputes, the land related disputes are considered as high influential in PPP project. Table 4.2 explains the dispute mitigation strategies for the observed root causes of land related disputes. Refer Appendix A (1) and Appendix B (1) for further details.

Table 4.2: Root causes and mitigation strategies for land related

Related Causes	Root causes	Disputes mitigation strategies
Delay in land acquisition	<ul style="list-style-type: none"> • Unavailability of legal provisions 	<ul style="list-style-type: none"> • Develop the proper legal framework for the land reclamation type of project before start • Develop the master plan to absorb PPP projects
	<ul style="list-style-type: none"> • Policy changes 	<ul style="list-style-type: none"> • Beforehand policies must be discussed, negotiated and agreed. • GOSL should have the firm national policy for the PPP
	<ul style="list-style-type: none"> • Bureaucracy or procedure of GOSL 	<ul style="list-style-type: none"> • Parties should get all the permits before enter into tender • GOSL should minimize the bureaucracy to facilitate PPP
	<ul style="list-style-type: none"> • Improper feasibility study 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project • Hire PPP advisors to develop detailed feasibility studies with PPP options analysis
	<ul style="list-style-type: none"> • Lack of clear lines of responsibilities within the public party’s agency 	<ul style="list-style-type: none"> • Improve clear lines of responsibilities within the public agencies by develop a centrally coordinated liability management framework or improving PPP unit to monitor and manage the liabilities in a single point
	<ul style="list-style-type: none"> • Lack of coordination among the public party’s agencies. 	<ul style="list-style-type: none"> • Improve PPP unit or develop administrative framework to PPPs project to monitor and manage the agencies in a single point
	<ul style="list-style-type: none"> • Poor communication with general public 	<ul style="list-style-type: none"> • Proper communication with general public and well defined communication training to public parties
	<ul style="list-style-type: none"> • Poor Public awareness 	<ul style="list-style-type: none"> • Public awareness should be conducted through PPP forum
	<ul style="list-style-type: none"> • Inadequate fund to provide the required compensation 	<ul style="list-style-type: none"> • Develop strong investment framework • Adequate compensation is to be paid by the government to the affected parties.
	<ul style="list-style-type: none"> • Lack of transparency within public agencies and with general public 	<ul style="list-style-type: none"> • National procurement committee mandated to monitor transparency in procurement process • Competitive procurement process to improve the transparency and accountability
Restrictions on transfer of ownership rights	<ul style="list-style-type: none"> • Government changes or policy changes 	<ul style="list-style-type: none"> • GOSL should have the firm national policy for the PPP
	<ul style="list-style-type: none"> • Legal restrictions or changes in law 	<ul style="list-style-type: none"> • Long term leasing • Develop strong legal and regulatory framework for PPPs project

4.8.2 Design or Specification related disputes

PPP projects disputes triggered by design and specification related issues which are frequently occurred as per the most of the respondents. Figure 4.6 demonstrates the responses of the respondents with regard to the causes behind the design and specification related disputes in PPPs projects.

<input type="checkbox"/>	Design or specification related disputes		12	34
<input type="checkbox"/>	Design and scope changes		7	7
<input type="checkbox"/>	Unavailability of information		6	6
<input type="checkbox"/>	Changes in technology		5	5
<input type="checkbox"/>	Inadequate or incomplete specification		3	3
<input type="checkbox"/>	Inadequate or excessive pricing mechanism		2	2
<input type="checkbox"/>	Design error or quality of design		1	1

Figure 4.6: Causes of Design and specification related disputes

- **Design and scope changes**

Design and scope changes are likely to occur in PPP projects where seven out of twelve respondents have responded. PB3 and PB5 mentioned that PPP approach provides the exclusive rights over finance, design, build, operate and maintain the project to private partner. Private party has the authority to use his material, methodology and technology, where all the design risks are associated with him. Therefore, public party has less power to challenge during the implementation stage since the design work completed already and all set to implement. Even though the private party's design is harmful to the country, there is no direct system to control the private party (PB3 & PB5). However, the final product should comply with Sri Lankan's standards and regulations since the ownership of the project ultimately transfers to public party. If the standard is vary and if it affects to the public end user, then there may be disputes during the construction stage. Therefore, there should be a system to control and ensure the quality of the services from the early stage of the PPP project.

Thus, it can be the 'quality representatives' who is to be appointed jointly by the public and private party through the tripartite agreement, where the special clause can be

incorporated that parties jointly have to appoint the quality representative to witness all the quality of the works, since the project is belong to the GOSL ultimately, as mentioned by QR2. Tripartite agreement has been implemented in one of the land reclamation project at the implementation stage. However, it is beneficial to appoint at early stage to avoid unnecessary conflicts between parties.

Further to this, respondents PB3, PR3, QR1 and QR2 mentioned that there were disputes in one of the popular project in Colombo, when the private party changed the materials from the original design. The contract document said to use HDPE pipes for the storm water pipes and initially design was also done for HDPE pipes which proved best quality in market, easier to operate and maintain in the Sri Lankans' practice. However, PB3 mentioned that *“Steel Reinforced Corrugated Polyurethane Pipe (SRCPE) was introduced newly by private party instead of HDPE pipes during the construction stage, due to cost benefit and handling benefits. Since the SRCPE is very new to Sri Lanka, there were conflicts between public and private party due to differences of opinions. Therefore, there were the several discussions and negotiations based on technical grounds. Finally, public party agreed to adopt the changes based on the investigation on the proof of application of pipes and experts' advice. However, until get all the clearance from public party, private party had to wait; thereby project got delayed as well as private party incurred financial loss for idling”*. The main reason for this issue is the technology ignorance of the private party at early stage and improper feasibility studies. In order to attest this, PB1 also highlighted that, the root causes for the design and scope changes are technology ignorance and lack of experience in PPP. In addition to this, QR1 & PR3 mentioned that design changed due to technical nature and inadequate specification.

There were lot of disputed events occurred in land reclamation projects in Colombo. As a result, GOSL had to compensate several millions to private party. LO1 mentioned that, government changed the extend of the land without reference to the public review to compensate to private party, since there is a lack of fund from public party to compensate. Furthermore, since the original EIA did not cover that relevant extended

area, supplementary EIA was done and included, thereby, project delayed and Private party claimed for further compensation.

PR1 mentioned that, design changed in one of their housing unit PPP project due to physical site condition and lack of clear design at initial stage, where the private partner could not deliver the original design. Therefore, the design revised with mutual negotiation with public party in reasonable way.

Hence, PB1 said, it is very important to strengthen the technical team before going for the PPP. Further he declared that, *“strengthening of the technical team is very important that’s what we have done before going for the PPP”*. Technical team normally address before the implementation stage. Moreover, he mentioned that private party has to maintain efficiency level since PPP contain the specific aspects, thereby specific conditions are to be incorporated with the PPP contract regard to technical capabilities and certain level of efficiencies of private party.

- **Unavailability of information**

The disputes due to unavailability of information in PPP projects occurred, where six out of twelve respondents have responded. Since the PPP project involves high value and massive development of infrastructure projects, there can be missing information in early stage for preparation of design and specification.

PB5 mentioned from one of his housing project that, *“Public party did not provide the as-built details and soil investigation report to the private party at initial stage. However public party transferred the construction risk to private party. During the construction time, Private party found the unforeseen mass scale services which pass through the site and it incurred high cost to the private party to change the initial design”*. Since, it is the obligation of the public party to provide the necessary information to private party, public party had to compensate to the private party. Therefore, public party allow the private party to construct an additional floor as a compensation to reimburse the loss.

According to LO1, public partners delayed to provide the information to private partner which caused delay and contributed to major delay in the critical path of the project also. Further evident to this, PR4 stated that the investors withdrawn the interest to invest in project since there was delay in providing information by the public party. It is due to bureaucracy or procedure followed in Sri Lanka or ignorance or negligence activities by the public party.

- **Changes in technology**

Technology changes cannot be predicted over the long term of PPP project, where five out of twelve respondents have responded for disputes due to changes in technology. When the private party deploy new technology in which public party expect to comply with Sri Lanka with fulfilment of desired quality and results, during which the dispute occurred between the public and private party. According to PB3, PR3, QR1 and QR2, new materials were introduced for storm water pipes in one of famous PPP project in Colombo. PB3 mentioned that *“This pipe is produced by China; it is nowhere around the world. However, the agreement said that private party had to use the Sri Lankan country made product and/or British standard in case of not availability in Sri Lanka. This event arose as dispute between the parties where there were differences of opinions between the parties relevant to this. Finally, public party agreed to adopt the changes based on the technical ground after the expert’s idea”*. Since it was the new material to Sri Lanka, public party had to gone through several testing and standard to approve. Ultimately project got delayed. The main reason is, private party’s ‘technology ignorance’ during the design stage and other reason is ‘Local staff had no experience with the new technology which used in other countries’

- **Inadequate or incomplete specification**

Three out of twelve respondents have responded to the inadequate specification. PR3, PR2 and QR2 mentioned that basically specification which was not clearly defined and missing parts were there in the specification. When the parties tried to do changes to the designs in the constructions, there were conflicts. However, since the project is

important to Sri Lanka, the public party could mainly be able to negotiate with private party in all the situation of conflicts.

- **Inadequate or excessive Pricing Mechanism**

Two respondents have responded to the disputes due to pricing mechanism. PB1 mentioned that, there is excessive pricing mechanism in one of his project. Further, he said, *“the biggest issue is that there are lapses during the construction stage or post contract stage. Because we anticipated say USD105 million for one of the project, whereas, the actual cost was USD50 million. However, we already signed the contract; there is no room to correct it around in the contract. Therefore, the private party gets advantage on it”*. The reason for this is ‘ignorance by the public party’. It is mainly due to ‘inadequate knowledge in the PPP project’. Therefore, improve the skills in PPPs projects is important.

PB4 declared that, inadequate pricing was encountered in one of housing PPP projects in Sri Lanka. Further he mentioned that, *“there were very poor responses for tender since the price per house was SLR 5.0 million, where all the facilities cannot cope-up within the budget”*. Therefore, government decided to re-visit the prices and got cabinet approval to revise the rates and decided to call for re-tender.

- **Design error or the quality**

Dispute occurred due to design quality. PR2 mentioned that, there is design failure in one of the Hambantota project, where two different jetties have constructed in two different levels, thereby ultimate goal of the project was not achieved. However, private party have taken over the project after completion of the construction work. Further he said that, design error or quality of design was identified by private party during the operation stage, thereby, private party had to rectify the issue by expending the money.

PR2 mentioned another design failure in one of the container terminal project in Colombo. Private party designed for the diesel power crane without concern about the environment, where diesel crane produced unpredictable level of flames and air

pollution. Therefore, private party took prompt action to change the design into electricity crane as a new technology. Further he mentioned that, *“that was the private party’s responsibility. Therefore, we obliged the conditions and had clarity on roles & responsibilities, so we bear the cost; thereby it was not turned as disputes”*.

To mitigate the disputes, the parties hired independent partner in their PPPs project. The impartial independent party has advised to the both parties in the PPP by in terms of judgment, opinion, recommendation etc. Therefore, mainly, that is one of mitigation measures that respondents have placed in the contract to manage any issues. Independent party should be impartial and technically sound person who is able to give the opinions to the both parties to judge (PB3, PR3, QR1, & QR2). Another mitigation measures are “obtain expert’s advice” through the project, since the Sri Lankan professionals have very less knowledge on PPP arrangement. The experts who is locally or internationally with multiple PPPs project experiences in the project will sort out many issues. PR3 & PR4 said that, expertise is able to give their impartial opinions when the parties to judge or take the decision on the cases.

Refer Appendix A (2) and Appendix B (2) for further details. Table 4.3 explains the dispute mitigation strategies for root causes of design or specification related disputes.

Table 4.3: Root causes and mitigation strategies for design/ specification related

Related causes	Root causes	Dispute mitigation strategies
Design and scope changes	• Technology ignorance by private party at the design stage	<ul style="list-style-type: none"> • Strengthening of the technical team • Increase the quality of contract drafting by including the condition regards to technical team
	• Lack of experiences in PPPs	<ul style="list-style-type: none"> • Improve the knowledge on PPPs approach by hiring PPP expert throughout the PPP projects
	• Changes in technology	<ul style="list-style-type: none"> • Obtain experts’ advice • Hire independent partner • Educate and trained the professional to adopt new technology
	• Physical constraint	<ul style="list-style-type: none"> • Discussion and Negotiation • Proper feasibility studies based on PPP expert’s advice
	• Lack of clear of designs at the initial stage	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project • Hire PPP advisors to develop detailed feasibility studies with PPP options analysis
	• Less power for public party to control the private party’s design	<ul style="list-style-type: none"> • Appoint quality representative to ensure the design quality
	• Scope changed due to government decision, due lack of funds from public party to	<ul style="list-style-type: none"> • Proper financial feasibility studies based on PPP expert’s advice • Develop strong investment framework to invite the

	compensate	investors
Unavailability of information	<ul style="list-style-type: none"> • Delayed by public party due to the procedure of GOSL 	<ul style="list-style-type: none"> • Appoint the steering committee to speed up the works
	<ul style="list-style-type: none"> • Ignorance or negligence by the public agencies 	<ul style="list-style-type: none"> • Appoint the steering committee to speed up the works • Incorporate compensation clauses in the contract
	<ul style="list-style-type: none"> • Lack of partnership 	<ul style="list-style-type: none"> • Improve the partnership and educate the PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in PPP project
Changes in technology	<ul style="list-style-type: none"> • Local staff had no experience with the new technology which used in other countries 	<ul style="list-style-type: none"> • Appoint experts with multiple experiences. • Improve the knowledge on PPP
	<ul style="list-style-type: none"> • Differences of opinion of the parties 	<ul style="list-style-type: none"> • Improve the parties close cooperation and mutual benefit objectives
	<ul style="list-style-type: none"> • Technology ignorance by private party at negotiation stage 	<ul style="list-style-type: none"> • Strengthening of the technical team
Inadequate or incomplete specification	<ul style="list-style-type: none"> • Lack of feasibility studies 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project • Hire transaction advisors to develop detailed feasibility studies with PPP options analysis • Increase the quality of contract drafting
	<ul style="list-style-type: none"> • Technology ignorance by private party at negotiation stage 	<ul style="list-style-type: none"> • Strengthening of the technical team
	<ul style="list-style-type: none"> • Lack of knowledge in PPPs 	<ul style="list-style-type: none"> • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice, PPP forum and practical experiences in the PPP project
Inadequate or excessive Pricing Mechanism	<ul style="list-style-type: none"> • Ignorance by the public party 	<ul style="list-style-type: none"> • Due diligence
	<ul style="list-style-type: none"> • Lack of feasibility study 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project • Hire PPP advisors to develop detailed feasibility studies with PPP options analysis
	<ul style="list-style-type: none"> • Inadequate knowledge in PPPs contract 	<ul style="list-style-type: none"> • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Design error or the quality	<ul style="list-style-type: none"> • Lack of environmental studies 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project
	<ul style="list-style-type: none"> • Improper feasibility studies 	<ul style="list-style-type: none"> • Hire PPP advisors to develop detailed feasibility studies with PPP options analysis

Even though the occurrences of design related disputes are high as per the respondents, the effects of the disputes are less, since the all design risks are associated with private party who have full authority to change, however, subjected to Sri Lankan's standard. Therefore, it can be concluded that design related disputes in the PPP projects are medium influencing factors and it can be eliminated by having proper disputes mitigating strategies.

4.8.3 Contract related disputes

The mainstreams of disputes are rooted in the complex contractual provisions that surround the majority of PPP arrangement (Boussabaine, 2007). As an evident to this, eleven out of twelve respondents have responded that contractual related disputes were

frequently occurred. Figure 4.7 shows the responses of the respondents with regard to causes behind the contract related disputes in PPP projects.

Contract related disputes		11	12
Poor quality of contract drafting		7	13
Discrepancies in contract		5	6
Inadequacy of contract provisions		3	4
Poor documentation		2	3
Non-performance of contractual obligation		4	7
Payment issue		4	5
Misinterpretation of contract terms		2	3
Lack of clear lines of responsibilities		1	1

Figure 4.7: Causes of contract related disputes

- **Poor quality of contract drafting**

PR2 mentioned that, if the contract is more clear, objective and comprehensive or if the contract contains adequate provision to manage all the circumstances, and if the parties work as per the document, there are fewer possibilities to disputes. The good quality of contract drafting will lead to lower the risk of disputes. However, most of the respondents mentioned that there were disputes raised due to discrepancies in the contract, inadequacy of contract provision and poor documentation in the PPP projects.

Discrepancies in the contract

Discrepancies in the contract is key causes for the dispute in PPP, which were encountered in several PPP projects in Sri Lanka, where five out of twelve respondents have responded. PB3 mentioned that there were disputes between public and private party in one of the land reclamation project in Colombo, where private party did not agree to use any standard document initially. After the opposition and negotiation by the public party, private party agreed to use the standard documents during the construction period. Thereafter, there were lot of standard documents they have used which again caused confusions to the professionals.

Furthermore, QR1 mentioned that dispute occurred due to adopting the several documents in the contract, which resulted discrepancies and ambiguities in the contract. Further he said that, *“There are several documents used in the project, such as ‘tripartite agreement’, EPC-turnkey, FIDIC Redbook, and private party’s own contract specification, designs etc. Therefore, private party wanted to apply the tripartite agreement sometimes instead of EPC contract. Sometimes, they tried to avoid the specifications and provided as per their design. Sometimes, if the tripartite agreement gives lesser requirement, which they wanted apply rather than the highest specified in their own specification”*. These issues caused disputes between the parties.

Moreover, QR2 mentioned that there was dispute in the land reclamation project, where earlier the land reclamation contract was awarded under EPC-turnkey. However, the private party changed the contract as FIDIC red book during the construction of infrastructure work. Therefore, all contractual conditions and clauses varied from the previous. Especially, there should be an “Engineer” for the project as per FIDIC red book. However, there was no ‘Engineer’ in that project which was the primary failure of the contract. This caused major disputes between the parties.

PB4 also said that there were discrepancies due to several documents in the projects. NHDA has arranged the signing agreement in isolation, in which, *“there was PPP agreement which was signed by developer and the NHDA; and ‘Escrow’ agreement which is joint account agreement in which the developer, NHDA and the Bank signed; and ‘sale and purchase agreement’ which is signed by developer, NHDA and the buyer. So every buyer has to come into an agreement with all these parties”*. Thus, there were lots of discrepancies in these documents which caused the disputes later.

PR1 also mentioned that there were disputes due to discrepancies in the contract document in one of housing project, where SBD4 document was converted to fulfill the requirement of PPP arrangement. However, there was no proper transfer when they convert from SBD into the PPP, since the professionals had inadequate knowledge on PPP. Therefore, there were some issues in the document, and it was turned as disputes.

Accordingly, the causes of these disputes are mainly due to numerous contract document and ambiguities of the documents. The root causes for these issues are

inadequate knowledge of the PPP and unavailability of firm standards for PPP. In other words, there is no standard form of contract for PPP arrangement; thereby the parties have adopted their own documents as per their preferences. It was also observed from the all relevant respondents and the projects that, they have used different standard for their PPP projects. Different department have different set of rules, regulations and standards for their PPP projects. This caused the contradiction for the PPP industry practitioners. Therefore, it is necessary to develop the PPPs standard form of contract through which everybody will have confident and knowledge about what is going on.

Inadequacy of contract provision

Three out of twelve respondents have responded that inadequacy of contract provision is also one of the major reasons for the dispute. PB4 mentioned that private party rejected to do the rectification work in one of the housing project in Sri Lanka. Further he said that, *“There were shortcomings in the agreement, in which there were no provision for termination, release of retention money and dispute resolution. Thus, the public party cannot terminate or not liable to take the retention money or cannot find any contractual resolution due to absence of those provision. Moreover, the public party cannot just terminate the PPP contract with private party and find another one to proceed, since bank will not release the money from ‘Escrow account’ without signing by both parties”*. Therefore, it was very much complicated. There should be an alternative arrangement to get rid of it. Therefore, as a mitigation strategy, PB4 revealed that, increase the quality of contract drafting by incorporating the contract provision for method of taking money out of the Escrow account in case of any termination. For the reason that, if one party miscarries to perform, then the other party should be able to take money out and continue the project.

Further to this, PR1 also mentioned that they couldn't take the retention money since there was no provision allocated in the PPP contract regards to release of retention money. However, by having good performance and party's close cooperation, the public party agreed to release the retention money.

LO1 also explained that there was suspension occurred in one of PPP project without consultation with legal bodies. Public party quickly suspended the project since the contract was not contained the dispute resolution clause. According to PB4, incorporating strong dispute resolution method is not only serving the purpose of resolve disputes, it will prevent disputes too. Therefore, the contract should have the contractual obligations on the parties to come for dispute resolution to ensure that the project will go forward and without being disturbed.

As per respondents, the main reason for absence or inadequacy of contract provision in PPP contract is inadequate knowledge of professionals who prepare the document for PPP projects. Therefore, obtaining expert's advice is crucial while drafting the contract document. Moreover, develop the standard contract form for PPP and develop the PPPs guideline also essential, which will give the proper guidance for the PPP practitioners.

Poor documentation

The issues with regard to poor documentation were experienced by the two out of twelve respondents. QR1 said that, "*direct foreign investment is actively pursued. This is sometimes leads to the launch of project without proper documentation and proper negotiation*". Moreover, PB3 said that there are politically beneficial project in Sri Lanka. This one also will lead to adopt the project without proper feasibility study and documentation, and without proper negotiation. Therefore, there were always disputes or contradiction due to that sudden function. Therefore, proper negotiation at early stage, proper validation before implementation and proper feasibility is important.

- **Non-performance of contractual obligation**

The respondents PB4, PR3, PR4 and LO1 declared that, one of reason for the contract related disputes is non-performance of contractual obligation, which means in the principles, failure to perform the obligations under the contract, where four out of twelve respondents have responded. In order to endorse this, there was an incident explained in progress presentation and by PB4 based on the housing project as follows. "*The PPP agreement said that private party shall collect the money from buyers for the houses. However, that money is to be sent through the 'Escrow account' which is the*

joint account with the private party, public party and the bank. Moreover, 'Escrow account' is the interest generated account and the interest amount should be shared by both parties which were mentioned in the contract agreement. Further he said that in spite of allowing the buyers to deposit the money into 'Escrow account', private party received money on their own account. As a result, no substantial interest was granted to the public party. In addition, even after the notice of claim, private party refused to repay the interest amount to public party. The public party therefore retained the private party to make the final payment and stated that, computation of final bill amount is pending until settle the foregone escrow interest".

Consequently, PB4 and the progress presentation of PCU emphasised that, performance of defect rectification work and signing of deeds of buyers also breached by the private party. *"The defect rectification works within the defect liability period (one year) and signing the buyer's deeds are the major contractual obligations of the private party as per the PPPs contract. Even though private party got the legal fees regard to deed from the buyers, they did not sign the deeds of the buyers"*. This is due to the effect of unsettlement of the Final Bill by public party as mentioned above.

Therefore, from these statements, it is well understood that there were 'non-performance of predetermined contractual obligation' on the part of private partner, 'payment issues' on the part of public and private parties and the 'disagreement between the public and private parties', and which have led the parties to the disputed situation. To mitigate these disputes, public party attempted several discussion and negotiation. Also public party sent the notice explaining with the contractual portion. If private party did not respond to the warning and notice, then the next action will be the contractual and legal actions.

The root cause behind these issues is 'lacking partnership' in the PPP, where the partnership is the ultimate theme of the PPP procurement. To mitigate this issue, the respondent expects the parties to have a close cooperation, and clear goals and mutual benefit objectives.

PR4 stated that, there was non-performance of the contractual obligation by the private party with regards to environmental issues, where private party failed to take environmental approval before start the construction work. In addition to these, PR3 acknowledged that there was another incident in the Breakwater maintenances in one of the project. As per the tripartite agreement, it is the public party's obligation to do the breakwater maintenance. However, public party was reluctant to take this responsibility. It is mainly because in PR3's word "*parties who don't know the actual contract requirements*". Thus, it is clear that lack of clear lines of responsibilities, lack in partnerships, and inadequate experience in the PPPs contract.

Moreover, QR1 mentioned that public party reluctant to do the breakwater maintenance due to lack of funds and the facilities. This indicates that risk has been misallocated to public party, where the public party is not capable to undertake this due to lack of funds and facilities. Further, it can be said that there were improper financial feasibility studies on the part of public partner.

However, LO1 declared that generally PPP projects are very clear with regard to parties' obligations. If the parties to a contract perform their relevant obligations as they should, then all well and everyone is happy. However, there are situation may arise where one party fails to bound with contractual obligation as required under contract, in which the aggrieved party is liable for the appropriate remedy. The non-performance of the contractual obligation always leads to disputes which should be settled through amicable settlement or negotiation, unless, it always seeks the contractual resolution or legal action. Therefore, incorporating strong dispute resolution in the contract would minimize the dispute.

- **Payment issues**

Payment issues were experienced by the four respondents out of twelve. PB4 affirmed that there were disputes regards to payment issues where the private party breached the conditions of contract by collecting the money from the buyer instead of putting in the Escrow account, where public party loses their interest amount. Mitigating measures

have been taken but it was not successfully gone through. Therefore, additional ground works had to be conducted to settle the issue.

PR1 mentioned that, the public party had to approve the payment certificates to get the money from the Escrow account. There were disputes when the public party approving payments. PR1 further revealed that there was an issue with regard to releasing the retention money to the private party. Further to this, PR2 also mentioned that payment issues with regards to insurance bonds, retention money and other payment schedule. And which is also settled through the negotiation. In addition to this, LO1 revealed that there was a delay in payment by the public party and there was payment refused sometimes. As the mitigation strategy, the parties had discussions and negotiations.

The root cause for this issue is lack of partnership approach, whereby disagreement occurred between the parties. Therefore, the parties should improve the close cooperation and good relationship and mutual understanding.

- **Misinterpretation of contract terms**

The majority of PPP projects have complex contractual provision which prone to different interpretation by the diverse parties of the contract. LO1 mentioned that one of the projects was suspended by the GOSL due to misinterpretation of the contract term. Further he said that, *“There was no suspension clause in the contract document, however termination clause was there”*. Therefore, termination clause was misinterpreted to government as suspension clause which led the government to suspend the project where project experienced long delays and delay charges. Government has suspended the project without any consultation with the legal bodies. The root causes for these issues are inadequate knowledge in the PPP terms, poor communication within the project parties, lack of coordination among the public parties, poor quality of contract drafting and irrespective political changes etc. Therefore, proper quality of contract drafting, proper knowledge on PPP terms and conditions, representation beforehand, increase the state guarantee, proper communication and coordination are some of significant mitigate measures to the disputes due to misinterpretation of the contract terms.

Representation is one of the strategies identified by LO1, thereby, the parties should consult the legal bodies before take any action. Whenever there is contract related issues, any ambiguities or misinterpretation of contract term, the legal officers have to make sure to representation beforehand. If the disputes due to misinterpretations error, legal officers have to take prompt action to explain and to make representations before actual escalations into disputes.

- **Lack of clear lines of responsibility**

PB2 indicated that lack of clear lines of responsibility was there within the public party’s agencies in the one of PPP project located in Colombo. The land was leased to 99 years to the private party by SLPA. However, SLPA does not have authority to lease the land for more than five years according to the SLPA guideline. Furthermore, if the SLPA wanted to continue the lease agreement, they could have got the cabinet approval which is also failed to obtain and SLPA continued do so. This was rectified after the entry of new government; thereby the ownership has transferred to the UDA since UDA has authority to lease the land for 99 years. Therefore, there was an ignorance or reluctance or lack of clear role and responsibilities within public agencies.

And also he pointed out them, “*UDA and BOI have the authority to lease or 99 years. The government could have given either UDA or BOI at the early stage, thus, it was able to finish the issues earlier*”. Hence, early attention could have taken to avoid related disputes by proper feasibility study, due diligence and proper risk allocation to the best manageable institute and clarity on roles and responsibilities will support to mitigate this type of disputes.

Refer Appendix A (3) and Appendix B (3) for further details. Table 4.4 explains the dispute mitigation strategies for root causes of contract related disputes.

Table 4.4: Root causes and mitigation strategies for contract related

Related Causes	Root causes	Proposed Dispute Mitigation Strategies
Poor quality of contract drafting	• Unavailability of firm standards for PPP	• Develop the standard form of contract for PPP projects
	• Inadequacy of contact provision	• Increase the quality of PPP contract drafting
	• Poor documentation due to lack of	• Proper feasibility studies by hiring PPP advisor with

	feasibility studies	PPP option analysis • Proper documentation
	• Politically beneficial project	• Proper validation before implementation
	• Discrepancies in the contract	• Develop the standard form of contract for PPP
	• Ambiguities in the documents	• Increase the quality of PPP contract drafting
	• Lack of negotiation at early stage	• Proper negotiation before agree the project • Proper validation before implementation
	• Lack of experiences in PPPs	• Improve adequate skills on PPP arrangement by proper training, workshops, seminars, study sessions, and practical experiences in the PPP project • Strengthening of the technical team • Obtain expert's advice throughout the PPP project
	• Lack in partnering approach	• Improve and educate on parties close cooperation and effective relationship management
Non-performance of contractual obligation	• Lack in partnering approach	• Improve and educate on parties close cooperation and effective relationship management • Educate on clear goals and mutual benefit objectives
	• Lack of funds from public party	• Proper financial feasibility studies by hiring PPP advisor with PPP option analysis
	• Lack of funds from private party	• Proper investment plan
	• Lack of clear lines of responsibilities	• Increase the quality of PPP contract drafting
	• Lack of experiences in PPPs	• Improve adequate skills on PPP by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Obtain expert's advice throughout the PPP project
	• Ignorance or negligence	• Improving PPP unit to monitor and manage the liabilities in a single point • Incorporate compensation clauses in the contract • Proper dispute resolution clauses
	• Improper risk allocation	• Proper risk allocation by obtain expert's advice
	• Disagreement among the parties	• Incorporate compensation clauses in the contract • Increase the quality of PPP contract drafting
Payment issues	• Lack in partnership approach	• Improve and educate on parties close cooperation and effective relationship management • Educate on clear goals and mutual benefit objectives
	• Payment conditions were breached by the public party due to lack of fund from GOSL	• Incorporating strong conditions • Strong dispute resolution clause in the contract • Quick respond to claims
	• Payment delay	• Incorporating strong conditions • Quick respond to claims
	• Lack of experiences in PPPs	• Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Misinterpretation of the contract terms	• Misinterpretation of contract terms	• Representations
	• Poor consultation with legal bodies	• Representations • Consultation with legal bodies
	• Irrespective political changes	• Increase the state guarantee
	• Poor quality of contract drafting	• Increase the quality of PPP contract drafting
	• Lack of clear lines of responsibilities	• Improve the clear lines of responsibilities by improving PPP unit to monitor and manage the liabilities in a single point
	• Poor communication between the parties	• Well defined communication system • A communications program to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy.
	• Poor coordination between the parties	• Educate on parties close cooperation and effective relationship management by educating the parties

	<ul style="list-style-type: none"> • Lack of experiences in PPPs 	<ul style="list-style-type: none"> • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Lack of clear line of responsibilities	<ul style="list-style-type: none"> • Lack of feasibility studies • Poor quality of contract drafting 	<ul style="list-style-type: none"> • Comprehensive feasibility studies by obtain PPP expert's advice and PPP option analysis • Increase the quality of PPP contract drafting
	<ul style="list-style-type: none"> • Technology ignorance by private party at negotiation stage 	<ul style="list-style-type: none"> • Strengthening of the technical team
	<ul style="list-style-type: none"> • Lack of experiences in PPPs 	<ul style="list-style-type: none"> • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project

Even though the occurrences of contract related disputes are high as per the respondents, the effects of the disputes are considerably less. Therefore, it can be concluded that contract related disputes in the PPP projects are medium influencing factors and it can be eliminated by the time. The significant mitigating strategies are develop PPPs' standard form of contract, increase the quality of contract by adopting all necessary provisions and conditions, strengthening of the technical team, obtain experts' advice, appoint independent partner.

4.8.4 Construction related disputes

The construction risks are common in all type of projects, and it's belonging to private party in PPP projects. Figure 4.8 demonstrates the respondents' responses with regard to the causes behind the construction related disputes in PPP projects.

Construction related disputes	10	10
Unavailability of resources	6	7
Construction delay	4	4
Design defect or quality of service	3	3
Unforeseen site condition	2	2
Financial failure of the private party	1	1

Figure 4.8: Causes of construction disputes

- **Unavailability of resources**

Resources can be skills, knowledge, labour, materials, money etc. Unavailability of resources was encountered in this study from both the parties. PR3 mentioned that, there were disagreements on the contractual obligations with regard to resources in one of the land reclamation project. The GOSL has been agreed to provide the entire utility

facilities to the project, however, abandoned later on due to lack of funds and agreed to provide the facilities up to the boundary of the project, hence projects delayed. Furthermore, there was another incident in the same project regard to ‘breakwater maintenance’ where responsibility of break water maintenance has given to GOSL as per the PPP agreement. However, GOSL was reluctant to perform due to lack of fund and the facilities.

PB4 mentioned that, one of the housing project came to dispute level due to unavailability of funds from private party, where other resources also have been affected, finally project delayed and public party taken over the project and made direct payment to the private party for the cost incurred at site while private party did only monitoring work.

LO1 mentioned that some of the resources are locally given and that is one of the responsibilities of the Public sector, so doing that, GOSL have go back and see the resources are enough. If there is a scarcity of resources, there will be risk involve the private sector partner to import. Therefore, public party should ensure that the resources are well calculated, contemplated within the contract. Therefore, proper feasibility study has to be done by obtain expert’s advice.

QR2 and PB4 mentioned that disputes arose due to lack of staff allocated for the design review and supervision during the construction stage since there were very less tasks defined for this scope. Therefore, the projects parties encountered that the staffs are not enough for the purpose. QR2 mentioned that *“considering the allowable budget, we had to negotiate and came to a conclusion to manage the scope with available staffs”*. Therefore, it was negotiated and settled.

- **Construction delay**

Construction delay has been experienced by the respondents PR2, PB4, PB5 and PR4. PR2 mentioned that construction delayed mostly due to changes in the government, the project was stopped for two years and it was a mandatory delay. Ultimately, public party should pay to the private party for their idling charges.

The major issues related to cost overrun and time overrun in PPP projects which bring the private party to another approach, where private party has obligation to provide the functional infrastructure within the certain cost and time, thereby the private partner have to self-motivated to complete on time and cost. The construction delay can often lead to significant cost overrun; in some cases, construction delay will make the project no longer financially and economically feasible. This situation not even further lead to time and cost overrun, however, it will also lead to relationship damage and leading to failure of the project.

- **Quality issues of the service**

According to the respondents PB3, PR3, and QR2, there were disputes with regard to quality issues in reclamation work, where private party did not perform up to a quality level. QR2 said that *“Therefore public party issued quality notifications, for which the private party has not responded and agreed on it. If the developer disagrees that, ultimately this quality notification couldn’t be closed”*. Ultimately, this will turn into dispute. Therefore, early attempt, close cooperation and clear goals and mutual benefits objectives should have followed by the private party. Therefore, strategy that the respondents taken to mitigate the disputes are negotiation, discussion, hiring expertise to get the advice regard to technical, appointing technical team with the contract, hiring independent partner, early warning mechanism, post project review etc., to resolve the dispute between the parties.

- **Unforeseen site conditions**

Unforeseen site condition has been experienced by the respondents PB5 and PR1. PR1 mentioned that, there were discrepancies in soil investigation report given by the public party, where soil investigation report and actual site inspection were given two different data. Private party later on identified that soil was weak. Hence, private party changed the foundation, thereby incurred cost. The root cause for this issue is discrepancies in the reports, improper feasibility study, improper risk assessment and ignorance by the private party. However, the private party mitigated this issue by

taking the risk at their own cost, since it was clearly indicated that it is private party responsibility.

PB5 experienced unforeseen site conditions in one of his housing project, where, public party did not provide the as-built details and soil investigation report to the private party at initial stage. Private party found the unforeseen huge underground services, which passed through the site during the construction time and it incurred high cost to the private party. Since, it is the obligation of the public party to provide the necessary information to private party at initial stage, public party had to compensate to the private party. Therefore, based on the negotiation, public party allowed constructing additional floor to reimburse the loss. The root cause for this issue is improper feasibility studies, unavailability of data and improper risk allocation.

Nine out of twelve respondents divulged that, proper risk apportionment and its management would contribute to mitigate potential disputes or resolve them more easily. If the risks would not be allocated in proper manner, and if it is not managed well, it will quickly turn into disputes. As discussed earlier, nature of sharing risks and responsibilities in the PPPs projects is very complex. Therefore, risks should be allocated to the parties who are best able to manage it.

- **Financial failure of the private party**

The financial failure of the private party encountered in two of the PPP housing unit project in Sri Lanka, where the local contracting company was act as a private party. PB4 mentioned that, *“there is two housing unit projects was awarded to same private party who faced lots of liquidated problems during the construction stage and they could not proceed with the projects. The projects were stopped in halfway. Public party tried to terminate, however it was not the suitable method since the Escrow account is handle by both party and since there were lot of agreement”*. This issue was settle by public party by paying the private party by direct payment for material, labour, staff, petti-cash by monitoring the projects.

Refer Appendix A (4) and Appendix B (4) for further details. Table 4.5 explains the root causes and mitigation strategies to construction related disputes

Table 4.5: Root causes and mitigation strategies to construction related

Related causes	Root causes	Dispute mitigation strategies
Unavailability of resources	• Improper feasibility studies	• Proper feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis
	• Lack of experiences in PPPs	• Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
	• Misallocation of risks	• Proper allocation of risk in early stage by obtain PPP expert
	• Due lack of funds and facilities from public party to perform the obligation	• Proper financial feasibility studies • Proper allocation of risk in early stage by obtain PPP expert
	• Lack of staffs to the PPP project	• Proper feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis • Proper allocation of staffs by obtain expert's advice
Construction delay	• Lack of feasibility studies	• Comprehensive feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis • Increase the quality of PPP contract drafting
	• due to government change	• Develop strong national policy
	• Lack of knowledge in PPPs	• Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, and practical experiences in the PPP
Quality issues of the services	• Technology ignorance by the private party	• Due diligence • Hire independent partner • Obtain expert's advice • Post project review
	• Lack of clear lines of responsibilities	• Educate on clear goals and mutual benefit objectives • Improve the clear lines of responsibilities by improving PPP unit to monitor and manage the liabilities in a single point
	• Not responding to quality notification	• Improve and educate the parties close cooperation • Quick response to the notification • Improving PPP unit to monitor and manage the liabilities in a single point
Unforeseen site condition	• Improper feasibility studies	• Proper feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis
	• Improper risk assessment	• Proper risk allocation by obtaining experts' advice
Financial failure of the private party	• Lack of fund from private party	• Proper financial feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis
	• Lack of partnership	• Educate on parties close cooperation and effective relationship management • Educate on clear goals and mutual benefit objectives

Even though the occurrences of construction related disputes are high as per the respondents, the effects of the disputes are less since the all construction risks are transferred to private party who have full authority to use his methodology subjected to Sri Lankan's standard. Therefore, it can be concluded that construction related disputes are medium influencing factors and it can be eliminated by having proper disputes mitigating strategies such as obtain experts' advice, appoint independent partner, proper feasibility studies, and improve the adequate knowledge, proper risk allocation.

4.8.5 Political Related disputes

Political uncertainty always exists in Sri Lanka. Generally, the political related disputes are belonging to public party. In case of any disputes due to changes in the political arena, the public party will be liable to compensate to the private party. Figure 4.9 shows the respondents' responses with regard to the root causes behind the political related disputes in PPP projects.

Political related disputes	11	12
Delays in regulatory approvals	9	10
Changes in government	9	9
Changes in policies	7	7
Breach of contract by government	2	2

Figure 4.9: Causes of political related disputes

- **Delay in regulatory approval**

Delay in regulatory approval is highly influenced for the project disputes, where nine out of twelve respondents have responded. PB3 mentioned that getting regulatory approval is not much easy in Sri Lanka. There are so many procedures have to be followed in each and every organization. Therefore, there may be mandatory delay as well as ignorance delay; thereby the projects were delayed. Furthermore, the foreign private party is not familiar with the Sri Lankan regulatory system, and they prepared the work schedule and master plan based on their country system which is not complying with Sri Lankan system. It is due to two different practices in both countries. Therefore, this kind of regulatory requirement to fulfill with their schedule is very difficult and ultimately, these will turn into disputes. Therefore, GOSL has to have some assistant (steering team) to get the regulatory approvals for the PPP type of project.

QR1 mentioned that, *“there is a PPP unit in Sri Lanka, but there is no link or coordination between the government’s authorities. For example; Water board, CEB, RDA having their own act which are not interconnected”*. Therefore, implementing the proper framework for PPP with required policies will help to reduce the dispute between the parties.

Most of the respondents' view is that the Sri Lankan regulatory system or bureaucracy or procedures are very slow when it compares to other countries. PB5 also mentioned that if any document to be done by the public party, delays will occur due to public procedures and general practice of staff. Therefore, PB4 declared that appointing steering committee will reduce the delays in regulatory approvals which they have done in their projects. The steering committee which is to address all the approval process. Therefore, they used to meet regularly and expedite these approvals. Further he mentioned that, they eliminated so many disputes situation by having steering committee.

- **Changes of government**

A frequent change in the government is most significant risk factor for the PPP nature in Sri Lanka. PB3 mentioned that “*conflicts occurred due to the political uncertainty or frequent changes in government since the Sri Lanka has politically profitable projects*”. One of the land reclamation projects in Colombo was suspended over two years after changes of government on the environmental ground citing “*environmental regulatory violations by the private party*”. Then the negotiation took place between the parties for two years. As a results, private party claimed compensation for the financial loss incurred due to suspension as per the compensation clause under the contract.

PB2 mentioned that, one of the former government have decided to give 20ha freehold land to the private party. It was mistakenly decided by the government of Sri Lanka. Since it was a controversial provision among the Sri Lankan public and opposition showed by media reports to this decision, GOSL introduced new legal restrictions after changes of new government.

In addition to this, PB3 mentioned that “*one of the PPP project agreements signed with the Mega polis. After the changes of new government, the ministry has also changed and now that project is under urban development, water supply & housing facilities. Therefore, now private party is in the contract but public agency has changed*”. When there are changes in the ministry, each and every rules and regulations also will change, since the each and every public agencies having different set of rules. Therefore, the

project participants had to follow the new system. Total formats including contract document also have to be changed and repetitive amendment will be there in the concession agreement with new rules and regulations as per the new ministry. These will make more disputes. For this, there should be a permanent entity which should not change with the government for the PPP types of project.

Moreover, there are lots of projects failed due to the changes of government. Relevent case is mentioned by PR3 that, in one of the hambantota project. *“The one of the former government had the vision to develop a second capital in the country. Thus, it have been invested with the taxpayers’ money. However project was suddenly stopped and whole investment collapsed, where no security for the investors”*. Therefore, there should be a policy that incur any sort of government came, still this PPP development has to be gone through. Therefore, there should be a national policy that where the government has been started to invest on feasible way, it has to be gone through without any influence by the parties who appointed or whoever run the government. Therefore, firm national policy should be introduced. Moreover, there should be a strong investment framework to secure the investors.

Another incident mentioned by PB4 is, the changes in the government resulted delaying the tender process of new projects. *“The GOSL told that they want to re-visit the concept. For that, government will take time to re-visit, because very recently new government came. This will cause the delay in project”*. Therefore, proper transparency should be there in the procurement process to PPP project to support the any government to continue the project from the stage where the past government stopped.

PB5 explained that if the project stopped due to government changes, proper compensation should be paid by the public party to Private party. In order to confirm this, there was another incident happened in one of the project, mainly due to the environmental issue. The government had to compensate several million to private party, due to delay by the government as per the agreement,

Another incident explained by the QR1 is, the one of the famous project in Galle port collapsed due to changes in government; where the project went upto arbitration level.

“With changes in government, policy was changed and all the operation was taken over by the GOSL”. Therefore, GOSL should have the policy. This is due to inadequate knowledge on PPP arrangement from public parties.

Therefore that there should be a firm national policy that where the government has been started to invest on feasible way it has to be gone through in any sort of government came, without any influence by any parties who appointed or whoever run the government. Therefore, there should be a national policy, transparency in the system, education, proper PPP framework and also having sort of responsible authority where the investors can be answers.

- **Changes in policies**

There is reversal of policy decision is frequently available in Sri Lanka (Asian Development Bank, 2011). PB2 said that changes in government policies can be lead to significant disputes. LO1 said that there are always issues with regard to government policy since if there are any changes in political economy or political background, then there is a change in the policy, when the policy change, public party tries to go out or tried to not to obliging the obligations under the PPP contract, and that’s why disputes happen. As a mitigation strategy, GOSL have to increase the state guarantees as per it’s govern under the constitutions and have to increase the state guarantees with private sector partner in the contract when drafting. Further, firm national policies should be introduced to PPP projects specifically.

- **Breach of contract by government**

Two out of twelve responded for the breach of contract by the government which manifested in many ways, including non-payment of claims, delayed payment, payment refused by the government for the work done, with the new government refusing to continue performance as per the existing contract. Moreover, unlawful revocation by government was there in one of the project as LO1 mentioned that there was suspension of the project by the government which turned to disputes. To mitigate this, strong dispute resolution clauses or strong conditions have to be incorporated with the contract.

Refer Appendix A (5) and Appendix B (5) for further details. Table 4.6 explains the mitigation strategies for root causes of political related disputes.

Table 4.6: Root causes and mitigation strategies for political related

Related causes	Root causes	Disputes mitigation strategies
Delay in regulatory approval	<ul style="list-style-type: none"> Unfamiliar with SL system for private party Different practises in two different countries 	<ul style="list-style-type: none"> Appoint steering team to accelerate the process Well defined communication system Communications program to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy.
	<ul style="list-style-type: none"> Lack of partnership approach 	<ul style="list-style-type: none"> Educate on parties close cooperation and effective relationship management
	<ul style="list-style-type: none"> Bureaucracy of GOSL 	<ul style="list-style-type: none"> Obtain all the permits before entering into tender GOSL should minimize the bureaucracy to facilitate the PPP
	<ul style="list-style-type: none"> Government changes / policy changes 	<ul style="list-style-type: none"> GOSL have to have the firm national policy for the PPPs approach
	<ul style="list-style-type: none"> Lack of PPP knowledge 	<ul style="list-style-type: none"> Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
	<ul style="list-style-type: none"> Lack of clear lines of responsibilities within the public party's agency 	<ul style="list-style-type: none"> Develop the centralized legal system for PPPs Improve lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point Educate on clear goals and mutual benefit objectives
	<ul style="list-style-type: none"> Lack of coordination among the public party's agencies. 	<ul style="list-style-type: none"> Improve PPP unit or develop administrative framework to PPPs project to monitor and manage the liabilities in a single point
	<ul style="list-style-type: none"> Lack of regulatory system for PPP 	<ul style="list-style-type: none"> Develop legal and regulatory framework for PPPs arrangement
	<ul style="list-style-type: none"> Lack of transparency within public agencies and with general public 	<ul style="list-style-type: none"> Improve the transparency through competitive procurement process
	Changes in government	<ul style="list-style-type: none"> Unavailability of national policy
<ul style="list-style-type: none"> Changes in Act related to investment, no investment framework to invite the investors 		<ul style="list-style-type: none"> Develop legal and regulatory framework to PPP Develop strong and attractive investment framework to invite the investors
<ul style="list-style-type: none"> Frequent changes of public agencies, ministries, so new set of rules 		<ul style="list-style-type: none"> Develop the centralized legal system for PPPs
<ul style="list-style-type: none"> Lack of investment framework 		<ul style="list-style-type: none"> Develop strong and attractive investment framework
<ul style="list-style-type: none"> Changes in political economy/reversal policy decision 		<ul style="list-style-type: none"> GOSL have to have the firm national policy for the PPPs approach
<ul style="list-style-type: none"> Interruption of project procurement 		<ul style="list-style-type: none"> Improve the knowledge on PPPs approach Improve the transparency through competitive procurement process
<ul style="list-style-type: none"> Lack of clear lines of responsibilities within the public party's agency 		<ul style="list-style-type: none"> Develop the centralized legal system for PPPs Improve lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point
<ul style="list-style-type: none"> Lack of coordination among the public party's agencies. 		<ul style="list-style-type: none"> Improve PPP unit or develop administrative framework to PPPs project
<ul style="list-style-type: none"> Poor Public awareness 		<ul style="list-style-type: none"> Public awareness should be conducted through PPP forum
<ul style="list-style-type: none"> Re-visiting to the project due to no transparency; Interruption of project procurement 		<ul style="list-style-type: none"> Increase the transparency through competitive procurement process

	<ul style="list-style-type: none"> Politically beneficial projects 	<ul style="list-style-type: none"> Proper Negotiation and proper validation before implementation including proper feasibility studies by hiring PPP advisors to develop detailed feasibility studies with PPP options analysis
	<ul style="list-style-type: none"> Lack of transparency within public agencies and with general public 	<ul style="list-style-type: none"> Improve the transparency through competitive procurement process
Changes in policies	<ul style="list-style-type: none"> Unavailability of policy framework 	<ul style="list-style-type: none"> Develop the proper policy framework for PPP
	<ul style="list-style-type: none"> Reversal policy decision 	<ul style="list-style-type: none"> Develop the proper policy framework for PPP
	<ul style="list-style-type: none"> Policy changes with government changes 	<ul style="list-style-type: none"> GOSL have to have the firm national policy for the PPPs which should not change with government
	<ul style="list-style-type: none"> Lack of PPP knowledge 	<ul style="list-style-type: none"> Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
	<ul style="list-style-type: none"> Politicians activity/ corruptions 	<ul style="list-style-type: none"> Develop the proper policy framework for PPP
Breach of government	<ul style="list-style-type: none"> Project suspension due to misinterpretation of term and improper feasibility studies 	<ul style="list-style-type: none"> Incorporate strong conditions in the contract Proper dispute resolution clauses Proper feasibility studies by obtain PPP expert advice
	<ul style="list-style-type: none"> Payment condition breached by government 	<ul style="list-style-type: none"> Incorporate strong conditions in the contract Proper dispute resolution clauses

The occurrences of political related disputes are high as per the respondents and the effects of the disputes are very high. Accordingly, delay occurred or cost incurred due to the political related disputes are high and propose mitigation strategy for the political related disputes are crucial to the country where it absorb more time to develop for PPP project since it has direct connection with government, policies and the general public. Therefore, it can be concluded that political related disputes in the PPP projects are high influencing factors and it cannot be eliminated by the time by general mitigation strategies due to uncertainty of political background. Therefore, its mitigation strategies are to be considered significantly for future PPP infrastructure projects in Sri Lanka.

4.8.6 Legal related disputes

High level of uncertainty always exists due to poor legal and regulatory framework for the PPP project in Sri Lanka. Figure 4.10 displays the respondents' the responses with regard to the root causes behind the legal related disputes in PPP projects.

Legal related disputes	7	15
Changes in law	6	7
Lack of respect for law	2	2
Other legal issues	1	1

Figure 4.10: Causes of legal related disputes

- **Changes in Law**

Change in law is most influential factor for legal related disputes. Since the PPP projects are special type and usually need long term cooperation among the public and private parties, during which the change in law may take place. Respondent PR2, PB2 and PB3 stated that, there was major problem due to changes in law regarding to transferring of ownership of the land to the private party in the popular off-shore land reclamations project. The land law was changed and GOSL introduced new legal restrictions which is “*the transfer of title of any land situated in Sri Lanka, shall be prohibited if such transfer is to a foreigner*” according to the land law of Sri Lanka, Act, No. 38 of 2014; as discussed in the section 4.8.1 under “restriction of transfer the rights”. Consequently, the given freehold land was transferred to lease hold for 99 years and project got delayed. The root causes for this issue are, no strong legal and regulatory framework for PPP project, poor feasibility studies, politically beneficial projects and GOSL does not have master plan to absorb different types of PPP projects.

Furthermore, as discussed in the section of ‘4.8.1 Land related disputes’ there was a long delay in land acquisition in the same off-shore land reclamation project due to lack of legal provision or no any procedure to acquire the reclaimed land since it is the first project in Sri Lanka. Therefore, there were long procedures followed by the public party to acquire the land. The root cause for this issue is lack of legal provision for the land acquisition for the reclaimed land. In addition, there is no PPP policy framework and master plan to absorb this kind of projects prior to enter into the contract. For that, there should be proper feasibility study.

Moreover, PR2 mentioned that there was statutory requirement which the GOSL had to amend the acts. Further he said, “*Sri Lankan’s law is very old. For example; SLPA act was 1979, which is outdated since there were lot of changes in globally, commercially, environmentally, and socially. Therefore 1979 Act is not applicable now. Then there was a necessary to change the Act. Thereby, parties had to wait until get the approval from parliament and attorney generals on certain things, during which the project got delayed*”. Therefore, to do any commercial transaction, public party have to get the approvals and change the act, thereby also there were disputes and delays in PPP

projects. Therefore, the country needs the updates of the law for PPP projects to match with the changes in commercial, environmental and social way.

PB2 mentioned that there were disputes in PPP project in Sri Lanka, which the GOSL cannot give any concessions to the private party/investors like previous. The reason is that, previously GOSL had the Strategic Development Act, during which BOI could able give various concessions like income tax, duty VAT, NBT exemptions, economic service charge etc. However, Strategic Development Act is no more (it is there but not operating) in Sri Lanka now and GOSL have new Inland Revenue Act. In new Inland Revenue Act need to bring certain amount of investment, and can get the concessions only for certain areas projects. *“This is the reason for even the port city stuck since investors cannot get any concessions and no PPP projects came during last few years due to this reason. Any investors come to Sri Lanka to get return, if they cannot get the return, they will not come”*. The main reason for this kind of disputes is that there is no proper investment framework for the PPP project in Sri Lanka. Therefore, develop the strong and attractive investment framework is crucial to get the new investors to Sri Lanka.

PB3 mentioned that there was very big issue in the development of smart city projects, where administrative system for permanent residents of the city is not established yet and the rule and regulations are not yet finalized. This is the responsibility of government. Before implement of this kind of projects, government had to fulfil these entire regulatory requirements, whereby GOSL have to have the master plan to absorb these projects.

Legal related disputes can be mitigated through incorporating the contract provision in the PPP agreement with regard to changes in the law, by citing *“if a change in the law causes a financial loss of more than USD ‘X’ to private party, the public party is liable to pay compensation”*. Then the aggrieved party can get back financial loss.

- **Lack of respect for law**

According to PB3, there was lack of respect for law by the private party in one of the project. *“The Private party was instructed to stop the work by Public party during the*

Independence Day, in order to respect the law and to avoid disturbing. However, the term or condition was not incorporated in contract due to the human error. Since the private party was reluctant, the public party forced them to stop the work. Then, they stopped and claimed for the idling charge. However, public party negotiated with them by explaining the national event, and compromise the private party instead of paying the ideal cost". However, PB3 further explained that, this issue can be turned into disputes at any time and the Private party can go to court also since there were loop holes in contract. Further he mentioned that *"the public party could have been incorporated the term in the contract document. However, it cannot be expect the perfect PPP agreement at any time since there can be a human error"*. Therefore, there should be a standard form of contract for PPP with all the minor conditions and increase the quality of contract drafting is significant to avoid the disputes occurrence.

Most of the PPP projects are coming through ministers and/or through some political connections. That will lead to a conflict, when they promise something and which cannot be provided officially. Therefore, development of PPP legal and regulatory framework is crucial where all the parties can get the awareness about the system. Therefore, false promises can be avoided and risk of disputes will be diminished.

- **Other legal issues**

LO1 mentioned that, every dispute occurred in PPP contract between public and private partner is legal related; such as breach of contract, misinterpretation of the contract, third parties filing actions for incompliance whether utility licenses, processes and permits etc. Furthermore, LO1 mentioned that, there were so many issues during the contract negotiation stages with regard to the public party's legal mandate, tax issues. There were so many legal issues which came as disputes after the enforcement or during the performance of the contract. Further he mentioned the mitigation strategies are; tried to take prior representation before signing the agreement, awareness with the public sector partner, they are the legal representatives, making the presentation and representation to the government, and the general public as much as possible to make them aware of the benefits of the projects and the legality of its.

Refer Appendix A (6) and Appendix B (6) for further details. Table 4.7 explains the dispute mitigation strategies for root causes of legal related disputes.

Table 4.7: Root Causes and mitigation strategies for legal related disputes

Related causes	Root causes	Disputes mitigation strategies
Changes in Law	<ul style="list-style-type: none"> Lack of legal provision 	<ul style="list-style-type: none"> Develop the proper legal framework for the land reclamation type of project before start Develop the master plan to absorb PPPs projects Comprehensive feasibility studies to be completed before start the project with PPP expert's advice including PPP option analysis
	<ul style="list-style-type: none"> Lack of investment framework 	<ul style="list-style-type: none"> Develop strong and attractive investment framework
	<ul style="list-style-type: none"> Government changes 	<ul style="list-style-type: none"> GOSL have to have the firm national policy for the PPPs approach
	<ul style="list-style-type: none"> Legal restriction 	<ul style="list-style-type: none"> Legal restriction is mandatory, due diligence Develop strong legal and regulatory framework
	<ul style="list-style-type: none"> Lack of clear lines of responsibilities within the public party's agency 	<ul style="list-style-type: none"> Develop the centralized legal system for PPPs Improve lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point
	<ul style="list-style-type: none"> Lack of coordination among the public party's agencies. 	<ul style="list-style-type: none"> Improve PPP unit or develop administrative framework to PPPs project to monitor and manage the parties in a single point
	<ul style="list-style-type: none"> Poor Public awareness 	<ul style="list-style-type: none"> Public awareness should be conducted through regular PPP forum
	<ul style="list-style-type: none"> Insufficient fund to provide the required compensation 	<ul style="list-style-type: none"> Adequate compensation is to be paid by the government to the affected parties.
	<ul style="list-style-type: none"> Improper feasibility studies 	<ul style="list-style-type: none"> Proper feasibility studies by obtain PPP expert advice at early stage including PPP option analysis
	<ul style="list-style-type: none"> Outdated Acts 	<ul style="list-style-type: none"> GOSL have to update the laws to support PPP
Lack of respect for law	<ul style="list-style-type: none"> Lack of partnership approach 	<ul style="list-style-type: none"> Educate on parties close cooperation and effective relationship management
	<ul style="list-style-type: none"> No conditions in the contract 	<ul style="list-style-type: none"> Develop the PPP procurement guideline
Other legal issues	<ul style="list-style-type: none"> Bureaucracy of GOSL 	<ul style="list-style-type: none"> Obtain all the permits before entering into tender GOSL should minimize the bureaucracy to facilitate PPP
	<ul style="list-style-type: none"> Misinterpretation of contract term 	<ul style="list-style-type: none"> Representation Obtain experts advise
	<ul style="list-style-type: none"> Lack of transparency 	<ul style="list-style-type: none"> Increase transparency procedure through competitive procurement process
	<ul style="list-style-type: none"> Lack of public awareness 	<ul style="list-style-type: none"> Conduct public awareness program through regular PPP forum
	<ul style="list-style-type: none"> No centralized legal system for PPPs 	<ul style="list-style-type: none"> Develop strong legal and regulatory framework for PPPs project Improve PPP unit
	<ul style="list-style-type: none"> Issues on legal mandate on public parties 	<ul style="list-style-type: none"> Proper negotiation before implementation Obtain experts advise
	<ul style="list-style-type: none"> Legal restrictions or changes in law 	<ul style="list-style-type: none"> Develop strong legal and regulatory framework for PPPs project

Accordingly, delay occurred or cost incurred due to the legal related disputes are comparatively high and propose mitigation strategy for the legal related disputes are

crucial to the country where it absorb more time to develop for PPP project since it has direct connection with government, legislatives and the general public. Therefore, Legal related disputes are considered as high influential factors and its mitigation strategies will support for future PPP infrastructure projects in Sri Lanka as well.

4.8.7 Environmental related disputes

The external events have the potential to cause the disputes in PPP projects; such as intervention by the environmental regulator or public opposition etc. Figure 4.11 illustrates the respondent’s responses regard to the causes behind the environmental related disputes in PPP projects.

Environment related disputes	8	8
Environmental conflicts	7	8
Public opposition of project	5	6
Unpredictable level of pollution	2	2

Figure 4.11: Causes of environment related disputes

- **Environmental conflicts**

The environment is not a profit making sector, thereby seven out of twelve respondents have responded to environmental conflicts. PB3 expresses that there are lots of disputes with regard to environmental aspects since there are two different views from the project parties, where the private party mostly concern on profit and public party is very concern on the environmental safety. Each party should have responsibilities over the natural system and environment whether it is public party or private party.

Most of the projects have been suspended due to the not obtaining environmental clearance. PB2 and PB3 mentioned that there were conflicts in one of the land reclamation project, where soon after project start, the opposition emerged by environmental groups who sued that the required EIA was compromised and which the project would harshly impairment the coast and marine life. Furthermore, the local fishermen’s union also strongly opposed to the project by fearing sand extraction for reclamation would affect the livelihoods. Consequently, the project was suspended by

the GOSL for over two years, on environmental ground citing “*environmental regulatory violations by the private party*”. Then the negotiation took place between the parties for two years.

PR4 stated that private party failed to take environmental approval before start the construction work. However, later on identified that design is not suit to the environment, where adjacent houses also were affected. Finally, they stopped the construction and had to change the design to suit with environment, consequently the project got delayed. PR4 further specified the mitigation strategy is that, since the Sri Lanka is very much concern on environmental aspects, it is always better to take the preliminary environmental approval before commence the project.

The root cause for these issues are, improper social impact studies, improper feasibility studies, bureaucracy of GOSL, lack of communication with general public, and public opposition. Therefor mitigation measures have been proposed as per Table 4.8.

- **Public opposition of the project**

Public opposition is occurred due to poor public consultation during the decision making process. Several respondents mentioned that the reason for the public opposition of the project is environmental conflicts as discussed above, by fearing to the private party’s activities for the project would affect the livelihoods, species severe damages to environment and unpredictable level of pollution etc. Public opposition creates long delays, suspension, and sometimes termination to the PPP projects. Since the PPP approach are dealing with the general public, it is the obligation of public party to consult the general public regarding the projects during decision making process, and which will reduce the effect of consequences. Furthermore, proper awareness programme and proper communication with general public is crucial.

- **Unpredictable level of pollution**

PB3 mentioned that unpredictable level of pollution occurred in one of famous land reclamation project due to mass scale of quarry production, blasting, mining, vibration, dust noise pollution, etc., where surrounded people life was affected. Therefore, social

impact assessment has to be done before commence production work. As well as, public awareness program has to be conducted to mitigate this kind of issues. LO1 stated that, there should strong anti-pollution clauses be included in the contract to avoid violation activities by the private party

Refer Appendix A (7) and Appendix B (7) for further details. Table 4.8 explains the dispute mitigation strategies for root causes of environmental related disputes.

Table 4.8: Root Causes and mitigation strategies for environmental related disputes

Related causes	Root causes	Disputes mitigation strategies
Environmental conflicts	<ul style="list-style-type: none"> • Bureaucracy of GOSL 	<ul style="list-style-type: none"> • Obtain all the permits before entering into tender • GOSL should minimize the bureaucracy to facilitate the PPP • Appoint steering committee to speed up the process
	<ul style="list-style-type: none"> • Not obtaining EIA report 	<ul style="list-style-type: none"> • Obtain all the permits before entering into tender
	<ul style="list-style-type: none"> • Improper feasibility study 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project by obtain PPP expert's advice including PPP option analysis
	<ul style="list-style-type: none"> • Improper social impact studies 	<ul style="list-style-type: none"> • Comprehensive social impact study to be completed before start the project by obtain PPP expert's advice
	<ul style="list-style-type: none"> • Lack of communication with general public 	<ul style="list-style-type: none"> • Proper communication with general public and well defined communication with training to public parties
	<ul style="list-style-type: none"> • Poor Public awareness 	<ul style="list-style-type: none"> • Public awareness should be conducted through regular PPP forum
	<ul style="list-style-type: none"> • Lack of transparency within public agencies and with general public 	<ul style="list-style-type: none"> • Improve the transparency through competitive procurement process
Public Opposition of the project	<ul style="list-style-type: none"> • Improper feasibility study 	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project by obtain PPP expert's advice
	<ul style="list-style-type: none"> • Improper social impact studies study 	<ul style="list-style-type: none"> • Comprehensive social impact study to be completed before start the project by obtain PPP expert's advice
	<ul style="list-style-type: none"> • Lack of communication with general public 	<ul style="list-style-type: none"> • Proper communication with general public and well defined communication with training to public parties
	<ul style="list-style-type: none"> • Lack of transparency within public agencies and with general public 	<ul style="list-style-type: none"> • Improve the transparency through competitive procurement process
	<ul style="list-style-type: none"> • Poor Public awareness 	<ul style="list-style-type: none"> • Public awareness should be conducted through regular PPP forum
Unpredictable level of pollution	<ul style="list-style-type: none"> • Improper social impact studies study 	<ul style="list-style-type: none"> • Comprehensive social impact study to be completed before start the project by obtain PPP expert's advice

Accordingly, impact of delay occurred or cost incurred due to the environmental related disputes, comparatively high to the project where long suspension was occurred. Therefore, the related disputes and its mitigation strategies are considered as high influential factors to the PPP infrastructure projects in Sri Lanka

4.8.8 Market and revenue related disputes

Figure 4.12 displays the respondents' responses with regard to the causes behind the market and revenue related disputes in PPP projects

Market and revenue related disputes		4	4
Unfavorable market conditions		3	3
Variable in forecasted equity's return		1	1
Extra profit		1	1

Figure 4.12: Causes of Market and revenue related disputes

- **Unfavourable market conditions**

PR4 mentioned that, disputes can be occurred due to unfavorable market conditions, but subjected to the project nature. Further he explained that “*Electricity based projects doesn't have market since there is only one buyer. However, for the road projects, there are market related issues. All these things have impacts on PPP projects*”. Therefore, there should be a proper risk assessment and have to increase the contingencies accordingly.

Moreover, proper market analysis is to be conducted. PB4 mentioned that disputes occurred in one of housing development projects where private party faced difficult to sell the houses and selling the houses were not feasible, due to the selected location for the housing which is not attractive, where no one was willing to invest in that project. Therefore, proper market analysis has to be done to avoid this kind of disputes.

According to PB3 and QR1, “*one of PPP project in Colombo, is committing high natural resources beyond the level of replacement. The usage of key materials such as sand, metal will generate superfluous demand for the local construction industry further than the economic and social benefits of the proposed PPP project*”. Moreover, Colombo Fort is considered as one of the major economic centre in Colombo. With the creation of this project, the economic activities can be diverted into new area resulting

socio economic issues. Therefore, small scale vendors also can be affected, so that social impact study has to be conducted in proper way.

- **Variables in forecasted equity return**

PB1 expressed that *“in one of the Asia power cooperation project, GOSL had to pay 38 rupees to buy one unit of energy, whereas private party were selling it 70 rupees. That is because, GOSL never expected tariff to go at that level at the time of signing the contract. Considering those variables in the power tariff calculation formula, some of the variables expected to change based on the sensitivity analysis. However, GOSL never expected that is to be so big. Therefore, when the variable goes up, CEB has to pay that amount immediately according the condition of contract”*. The reason behind it is, they didn't include that terms in the previous stage due to lack of experience.

PB1 mentioned that, since the PPP approach is long term, it cannot be predicted all things at the beginning. He mentioned further to this, *“very important dispute is SAGT project, private party's total cost is USD 240 million on the spreadsheet, whereas they managed to complete the project for USD160 million. Hence, private party got extra profit about USD 80 million”*. Those are not expected that in early stage.

Further he mentioned that dispute arose since there were no provisions in the contract. Therefore, as a mitigation strategy *“as if there is some extreme goes beyond this level, renegotiation have to be conducted”*. Further he said that, *“public party mostly includes the provision for ‘re-negotiation term’ in the guideline, where if the tariff goes up or whatever things happen beyond this level, there will be a Re-negotiation”*. Further to this, PB1 mentioned another mitigation strategy is to include stepping clause in the contract. *“Stepping clause is takeover the project quickly by the utility. So, for the national interest, those were included”*.

Refer Appendix A (8) and Appendix B (8) for further details. Table 4.9 explains the dispute mitigation strategies for root causes of market and revenue related disputes.

Table 4.9: Root causes and mitigation strategies to market and revenue related disputes

Related causes	Root causes	Disputes mitigation strategies
Unfavourable market condition	• Inadequate contingencies	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporating contingencies or provision
	• Improper social impact assessment	<ul style="list-style-type: none"> • Proper social impact assessment by obtain PPP expert's advice
	• Improper market analysis	<ul style="list-style-type: none"> • Proper market analysis by obtain PPP expert's advice
	• Improper risk assessment	<ul style="list-style-type: none"> • Proper risk assessment by obtain PPP expert's advice
	• Unnecessary demand for local construction industry material	<ul style="list-style-type: none"> • Proper market analysis by obtain PPP expert's advice
Variable in forecasted equity' return	• Extra profit to private party	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporate stepping clause • Increase the quality of PPP contract drafting
	• Lack of experiences in PPP	<ul style="list-style-type: none"> • Improve adequate knowledge on PPP approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Incorporating contingencies or provision
	• Inadequate contract provision	<ul style="list-style-type: none"> • Incorporating contingencies or provision
	• Lack of sensitivity analysis due to lack of knowledge on PPP	<ul style="list-style-type: none"> • Incorporating contingencies or provision • Improve adequate knowledge on PPP approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Increase the quality of sensitivity analysis by obtain PPP expert's advice
	• Unpredictability due to long term	<ul style="list-style-type: none"> • Include adequate contingencies

Accordingly, market and revenue related disputes are found as most influential factors considering the effect of the projects.

4.8.9 Economic related disputes

Figure 4.13 expresses the respondents' responses with regard to the causes behind the economic related disputes in PPP projects.

Cause	Count	Percentage
Economic related disputes	4	8
Changes in tax	2	2
Changes in foreign exchange rate	2	2

Figure 4.13: Causes of Economic related disputes

PR2 expressed that there were disputes with regard to changes in taxes, where public party wanted to collect the economic service charge, which is entitled to the private party. However, it was negotiated and settled. In addition, LO1 identified disputes with

regard to price escalation and changes in foreign exchange rate. Subsequently, LO1 mentioned that to fix the foreign exchange rate during the period simply to overcome the hardship or can increase the concessions or re-negotiate the concession agreement are the mitigation strategies. Furthermore, other respondents said that they are incorporating contingencies or provision to absorb the changes on economic. Therefore, there will be less chance of having disputes if the contingencies are included in the contract. Mostly, legally provisions are there for all economic related issues. Provisions and obligations have to be incorporated in the agreement and have to have good strategy to handle good dispute resolution clauses.

Refer Appendix A (9) for further details. Table 4.10 explain the root causes and mitigation strategies of economic relate disputes.

Table 4.10: Root causes and mitigation strategies to economic related

Related causes	Root causes	Disputes mitigation strategies
Changes in tax	Changes in tax due to long term nature	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporating contingencies or provision
Changes in foreign exchange rate	Changes in foreign exchange rate to long term nature	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporating contingencies or provision (increase the concession)

GOSL have to be responsible to ensure the cabinet and parliament grants the project entitling the private party to an income tax waiver, tariff-free import of machineries, and easing of foreign exchange control, since the private party undertakes the entire financial and commercial risks. Economic related dispute categories are considered as less influential disputes factors since these are not in the critical path of the project, where it can be settled by allocating proper contingencies and enough contractual provision and those already practiced by the project practitioner.

4.8.10 Human behavioral related disputes

Since the public and private parties habitually have diverse ways of functioning and dissimilar cultures in organization, the friction could cause. Absence of cross organizational knowledge distribution might rise and cause misapprehensions and

disagreements among the parties. Figure 4.14 displays the responses of the participants with regard to the causes behind the human behaviour related disputes in PPP projects.

<input checked="" type="radio"/>	Human behaviour related disputes		11	11
<input checked="" type="radio"/>	Inadequate experience in PPPs projects		10	10
<input checked="" type="radio"/>	Poor communication		8	8
<input checked="" type="radio"/>	Lack of coordination between public party's agencies		5	5
<input checked="" type="radio"/>	Adversarial culture		4	4
<input checked="" type="radio"/>	Lack of commitments or team spirit		2	2
<input checked="" type="radio"/>	Private party's general practice or Cultural differences		2	2

Figure 4.14: Causes of human behaviour related disputes

Human behavior related disputes are frequently occurred in all most in all the projects as per the respondents.

- **Inadequate experiences in PPPs projects**

According to Grimsey and Lewis (2004), PPP seek to draw on the best available skills, knowledge and resources to deliver value for money in the provision of public infrastructure services. The skills required for PPP are different from those traditionally found in the public service. Therefore, project participants should have necessary knowledge and skills to structure the PPP transaction to manage the contract over its life. PR1 also mentioned that, since the both parties are new to the PPP projects and PPP are new to Sri Lanka, documents were not properly drafted. Therefore, issues arose due to the agreement which drafted earlier by inexperience professionals. Some of the drafted terms could not deliver. Therefore, appoint the expert or well-known person while the agreement drafting is the solution for these issues, proper education on PPP arrangement is very important to increase the knowledge on PPP arrangement.

- **Poor communication**

Most of the respondents mentioned that disputes arised and it was further developed due to poor communication between public and private party. It is due to inadequate knowledge in the PPP, where actual requirement of the contract was not transferred properly to the parties. Since the PPP involves distriinct parties with diverse cultures, it is important for the project parties to comprehend how ideas and opinions are

transferred through different people in different cultures (PB4, PB5, PR1, PR2, PR4, QR1, and QR2). Further to the respondents, poor communication between public party and general public also created the protest and opposition of the PPP project due to lack of transparency (PB4, PB5, PR1, PR2, PR4, QR1, and QR2). The well-defined communication is essential for the effective interchange of ideas and views of project parties and external stakeholders. Hence, it is vital to provide the training and education to proper communication to the projects practitioners. Communication program is to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy. Moreover, public party should conduct the public awareness programme and improve the transparency to make it clear about the project.

- **Lack of coordination between public parties' agencies**

PB3 mentioned that the different government institutions have different rules and regulations for its own, which are not interconnected to each other in Sri Lanka. It is mainly due to lack of clear lines of responsibilities within the public agencies, lack of transparency, poor communication, and lack of knowledge on the PPP (PB3, PB4, PB5, PR4, and QR1). Therefore, PPP unit should be there to coordinate all the agencies. Moreover, proper education on the PPP approach and good training and educating the communication skills and their behavior are required to mitigate the related disputes.

- **Adversarial culture**

QR2 mentioned that adversarial culture between public party's agencies also the reason for the disputes in PPP project which is always happening in all the stages, where due to government will not listen to the other party sometimes. Furthermore, unnecessary arguments were there due to the behavioral attitudes and insufficient knowledge on PPP. Therefore, public parties should improve adequate skills on PPP arrangement.

- **Private party's general practice or cultural differences**

LO1 mentioned that cultural differences also reason for disputes due to the parties' general practices. If the private party is the foreign investor, their general practices

quite unconventional as far as Sri Lankan industry. As well as private party may bring foreigners who cannot understand the language and culture of Sri Lanka. Further he mentioned one of the strategies has taken is that *'bringing an independent party who is mutually acceptable and who knows both industry, both cultures and traditions'*. Generally, GOSL agree on an international consultant to handle the projects. Furthermore, it can be included into the contract during the drafting of the contract.

In addition, PB3 mentioned that there were conflicts with Sri Lanka's working periods and time. Furthermore, *"private party's thinks with the mind of system in their country. Difficult to adopt the SL practices. Private party is not ready to think the hazards, difficulties, environment, and social impact and they scheduled everything as per their system. Moreover, they force the GOSL to relax with all the aspects since they invest to the project. Based on the mind, private party made all the documents, then always coming with several claims, discussion, and conflicts"*. Those things also affect to projects by cost, time sometimes suspension. This is mainly due to the lack of partnership behavior in the PPP project.

- **Lack of parties' commitments or team spirit**

PR3 and QR1 mentioned that *"conflicts or disputes are expected in the PPP projects are mainly due to the understanding, sometime in the cases of the contract understanding"*. Mainly the bridge is still under construction among the public and private partners in Sri Lanka. *"The both party thinks separately, they always try to be as separate, not to join and work together. Therefore, no close cooperation between public and private parties or lack of coordination among the public and private parties in Sri Lanka and each one think that they are the superior as discussed in section 4.6.3. These are due to the human behaviors and attitudes which means, "The set of government organization in Sri Lanka have a mindset of morality, that they are the principles. Likewise, private sector also feels that they are come up with the money, so they should lead it"*. These are due to lack of partnership in PPP projects. Furthermore, PR1 mentioned that the parties should change their attitudes. Mainly public party should be changed since they came from the consultancy organization and try to practice consultancy in the partnership. Also sometimes private party will try to act as a

contractor. The Negotiation is the best way to mitigate the disputes for these kind of issues. In addition he mentioned that parties work separately and not as combined in some instances. These are due to inadequate knowledge in PPP arrangements.

Therefore, improvement of knowledge in PPP is important. Moreover, party's close cooperation and effective relationship management is vital. Effective relationship management in a PPPs project facilitates to prevent the disputes and encourages resolving the disputes easily. The cooperative relationships between the parties are significant bearing to the normal progress of a project.

Refer Appendix A (10) and Appendix B (9) for further details. Table 4.11 explains the dispute mitigation strategies for root causes of human behaviour related disputes.

Table 4.11: Root causes and mitigation strategies for human behavior related

Related causes	Root causes	Disputes mitigation strategies
Inadequate experience in PPP project	<ul style="list-style-type: none"> No proper training programme to improve the knowledge on PPP 	<ul style="list-style-type: none"> Improve the adequate knowledge on PPP approach by proper training, series of workshops, seminars, study sessions, PPP forum and practical experiences in the PPP project
	<ul style="list-style-type: none"> Lack of PPP experts available in PPP projects 	<ul style="list-style-type: none"> Appoint expert or obtain expert advice when drafting the document and during disputes PPP in the project
Poor communication	<ul style="list-style-type: none"> Poor communication between public and private party 	<ul style="list-style-type: none"> Education on well-defined communication system between public and private parties Communications program to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy.
	<ul style="list-style-type: none"> Inadequate knowledge in PPP approach 	<ul style="list-style-type: none"> Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
	<ul style="list-style-type: none"> Poor communication between public partner and general public 	<ul style="list-style-type: none"> Public awareness programme to be conducted through regular PPP forum Improve the transparency through competitive procurement Proper communication with general public and well defined communication with training to public parties
Lack of coordination between different authorities	<ul style="list-style-type: none"> Lack of coordination between public party's agencies 	<ul style="list-style-type: none"> Improve the PPP unit to coordinate all the agencies in a single point
	<ul style="list-style-type: none"> Lack of transparency 	<ul style="list-style-type: none"> National procurement committee is mandated to monitor the transparency in procurement process Competitive procurement process to improve the transparency and accountability
	<ul style="list-style-type: none"> Lack of clear lines of responsibilities within the public parties agencies 	<ul style="list-style-type: none"> Improve clear lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point Education on clear goals & mutual benefit objectives
	<ul style="list-style-type: none"> Poor communication 	<ul style="list-style-type: none"> Good training and educating the communication skills. Communications program to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy.

	<ul style="list-style-type: none"> Inadequate knowledge in PPP approach 	<ul style="list-style-type: none"> Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Adversarial culture	<ul style="list-style-type: none"> Adversarial culture in between public party's agencies 	<ul style="list-style-type: none"> Training and education in the behavioural attitudes Education on well-defined communication system
	<ul style="list-style-type: none"> Lack of partnership practice between public and private parties 	<ul style="list-style-type: none"> Improve adequate knowledge on PPP arrangement Improve and educate on parties close cooperation & effective relationship management
Private party's general practice or cultural differences	<ul style="list-style-type: none"> Private party's general practice or cultural differences between public and private parties 	<ul style="list-style-type: none"> Bringing an Independent party who is mutually acceptable and who knows both industry, both cultures and traditions' and to be included in the contract
	<ul style="list-style-type: none"> Lack of partnership practice between public and private parties 	<ul style="list-style-type: none"> Improve and educate on parties close cooperation & effective relationship management
Lack of parties commitments or team spirit	<ul style="list-style-type: none"> Lack of partnership practice between public and private parties 	<ul style="list-style-type: none"> Improve and educate on parties close cooperation & effective relationship management
	<ul style="list-style-type: none"> Inadequate knowledge in PPP approach 	<ul style="list-style-type: none"> Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project

Human behavior related disputes are encountered in all major categories of disputes which were analyzed above. It is mostly spread over in all types of disputes of PPP projects. Basically the disputes which arise due to human behavioral issues can be settled through negotiations. Most significant mitigation strategies are improving the adequate knowledge on PPP approach, improve transparency and accessible information system, appointing PPP experts in the project, education on well-defined communication system, appointing independent parties to omit cultural clashes, improve parties' close cooperation and effective relationship management, and improve the partnership practice and education on clear goals and mutual benefit objectives.

4.9 Strategies to mitigate the disputes in PPPs in Sri Lanka

In the extreme cases of disputes between the projects participants in the PPP projects will lead to the distress or failure of numerous PPPs projects. Therefore, strategies to mitigate the disputes in PPPs projects are important. Table 4.12 describes the summary of findings based on the respondent's responses.

Table 4.12: Proposed mitigation strategies in PPP infrastructure projects

Related causes	Proposed disputes mitigation strategies
• Land related disputes	
Delay in Land acquisition	<ul style="list-style-type: none"> • Develop strong legal and regulatory framework for PPPs project • Develop the master plan to absorb PPP projects • Discussion, negotiation and agreement on policies • Develop firm national policy for the PPP • Obtain all necessary permit on time • Minimize the bureaucracy to facilitate PPP • Comprehensive feasibility studies • Improve clear lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point • Improve PPP unit or develop administrative framework to PPPs project • Proper communication within the parties and with general public • Conducting public awareness program through regular PPP forum • Develop strong and attractive investment framework for PPP approach • Adequate compensation • Improve the transparency through competitive procurement process and monitoring by National Procurement Committee
Restrictions on transfer of ownership rights	<ul style="list-style-type: none"> • Develop firm national policy for the PPP • Practise long term leasing • Develop strong legal and regulatory framework for PPPs project
• Design and specification related disputes	
Design and scope changes	<ul style="list-style-type: none"> • Strengthen the technical team • Increase the quality of PPP contract drafting • Improve the knowledge on PPPs approach by proper training, series of workshops, seminars, study sessions and practical experiences in the PPP project • Obtain PPP experts' advice • Hire independent partner • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Appoint quality representative to monitor the quality of design and specification from early stage • Appoint the steering committee
Unavailability of information	<ul style="list-style-type: none"> • Improve the partnership through educate on parties' close cooperation and mutual benefit objectives • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Appoint the steering committee • Incorporate compensation clauses in the contract
Changes in technology	<ul style="list-style-type: none"> • Appoint PPP experts with multiple technology experiences • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Improve and educate on the parties' close cooperation and mutual benefit objectives • Strengthen the technical team
Inadequate or incomplete specification	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Increase the quality of PPP contract drafting • Strengthen the technical team • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Inadequate or excessive Pricing Mechanism	<ul style="list-style-type: none"> • Due diligence • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Design error and the quality	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Strengthen the technical team • Obtain PPP experts' advice • Hire independent partner

• Contract related disputes	
Poor quality of contract drafting	<ul style="list-style-type: none"> • Develop the standard form of contract for PPP • Increase the quality of PPP contract drafting • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Improve and educate on parties' close cooperation and effective relationship management • Appoint PPP experts while contract drafting
Non-performance of contractual obligation	<ul style="list-style-type: none"> • Improve and educate on parties' close cooperation and effective relationship management • Strengthen the technical team • Increase the quality of PPP contract drafting • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Incorporate compensation clauses in the contract • Proper dispute resolution clauses • Proper risk allocation by obtain PPP expert's advice
Payment issues	<ul style="list-style-type: none"> • Incorporating strong conditions • Strong dispute resolution clause in the contract • Quick respond to claims • Improve the knowledge on PPPs approach by proper training, series of workshops, seminars, study sessions and practical experiences in the PPP project • Obtain experts' advice • Improve and educate on parties close cooperation and effective relationship management
Misinterpretation of the contract terms	<ul style="list-style-type: none"> • Proper representations by legal experts • Proper consultation with legal bodies • Obtain PPP experts' advice • Proper communication • Improve the knowledge on PPPs approach by proper training, series of workshops, seminars, study sessions and practical experiences in the PPP project
Lack of clear line of responsibilities	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Increase the quality of PPP contract drafting • Strengthen the technical team • Improve the knowledge on PPPs approach by proper training, series of workshops, seminars, study sessions and practical experiences in the PPP project • Obtain experts' advice
• Construction related disputes	
Unavailability of resources	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Proper allocation of risk by obtain PPP expert's advice • Proper allocation of staffs
Construction delay	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Improve the knowledge on PPPs approach by proper training, series of workshops, seminars, study sessions and practical experiences in the PPP project • Increase the quality of PPP contract drafting
Quality issues of the services	<ul style="list-style-type: none"> • Due diligence • Appoint quality representatives to ensure the quality • Strengthen the technical team • Hire independent partner to deal in any issues • Obtain PPP expert's advice • Post project review • Clear goals and mutual benefit objectives • Educate on parties close cooperation and effective relationship management • Quick response to the notification
Unforeseen site condition	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Proper risk allocation by obtain PPP expert's advice • Allocate proper contingencies based on the PPP expert's advice

Financial failure of the private party	<ul style="list-style-type: none"> • Proper financial feasibility studies by hiring PPP advisor with PPP option analysis • Educate on parties close cooperation and effective relationship management • Proper investment plan
• Political related disputes	
Delay in regulatory approval	<ul style="list-style-type: none"> • Develop the proper policy framework for PPP • Develop strong and attractive investment framework • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Develop the centralized legal system for PPPs • Improve clear lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point • Adequate compensation
Changes in government	<ul style="list-style-type: none"> • Develop the proper policy framework for PPP • Develop strong legal and regulatory framework • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Develop firm national policy for the PPPs approach • Develop permanent entity for PPP • Improve PPP unit or develop administrative framework to PPPs project • Develop strong and attractive investment framework for PPP approach • Improve the transparency through competitive procurement process and monitoring by National Procurement Committee
Changes in policies	<ul style="list-style-type: none"> • Develop the proper policy framework for PPP • Develop strong legal and regulatory framework for PPP approach • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Develop firm national policy for the PPPs approach • Develop permanent entity for PPP • Improve PPP unit or develop administrative framework to PPPs project • Develop strong and attractive investment framework for PPP approach
Breach of government	<ul style="list-style-type: none"> • Increase stage guarantee • Develop the proper policy framework for PPP • Develop strong legal and regulatory framework for PPP • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Develop firm national policy for the PPPs approach
• Legal related disputes	
Changes in Law	<ul style="list-style-type: none"> • Develop strong legal and regulatory framework for PPPs project • Develop strong and attractive investment framework for PPP approach • Develop strong national policy for the PPPs approach • Develop the master plan to absorb PPPs projects • Develop the centralized legal system for PPPs • Comprehensive feasibility studies by obtain PPP expert's advice • Practice long term leasing • Due diligence on legal restriction • Improve lines of responsibilities within the public agencies by improving PPP unit to monitor and manage the liabilities in a single point
Lack of respect for law	<ul style="list-style-type: none"> • Due diligence • Conducting Public awareness through regular PPP forum
Other legal issues	<ul style="list-style-type: none"> • Obtain all necessary permits on time • Conducting Public awareness through regular PPP forum • Long term leasing • Develop strong legal and regulatory framework for PPPs project
• Environmental related disputes	
Environmental conflicts	<ul style="list-style-type: none"> • Develop firm national policy for the PPPs approach • Obtain all necessary permits on time • Appoint steering committee to speed up the process • Develop the proper legal and regulatory framework for PPP • Develop the master plan to absorb PPPs projects

	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Proper social impact study by hiring PPP experts' advice with PPP option analysis • Obtain proper environmental impact assessment report on time • Improve PPP unit or develop administrative framework to PPPs
Public Opposition of the project	<ul style="list-style-type: none"> • Proper communication with general public • Well defined communication system including training • Improve the transparency through competitive procurement process • Conducting public awareness program through regular PPP forum
Unpredictable level of pollution	<ul style="list-style-type: none"> • Proper social impact studies by hiring PPP advisor with PPP option analysis • Increase the quality of PPP contract drafting
• Market and revenue related disputes	
Unfavourable market conditions	<ul style="list-style-type: none"> • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis • Proper risk assessment through PPP expert's knowledge • Increase the contingencies • Proper market analysis by hiring experts with PPP option analysis
Variable in forecasted equity' return	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporate stepping clause in the contract • Proper risk assessment by obtain PPP expert's advice • Proper sensitivity analysis by obtain PPP expert's advice • Comprehensive feasibility studies by hiring PPP advisor with PPP option analysis
• Economic related disputes	
Changes in tax	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporate contingencies or provision
Changes in foreign exchange rate	<ul style="list-style-type: none"> • Re-negotiate the concession agreement • Incorporating contingencies or provision • Increase the concession to private party
• Human behaviour related disputes	
Inadequate experience in PPP project	<ul style="list-style-type: none"> • Improve the adequate knowledge on PPP approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Appoint expert or obtain expert advice when drafting the document
Poor communication	<ul style="list-style-type: none"> • Education and good training on well-defined communication system • Communications program to be devised to targets a wide range of internal and external stakeholders to convey the scope, objectives of GOSL PPP strategy and policy • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project • Conducting Public awareness program through regular PPP forum • Improve the transparency through competitive procurement process and monitoring by National Procurement Committee
Lack of coordination between different authorities	<ul style="list-style-type: none"> • Improve the PPP unit to coordinate all the agencies • Improve the transparency through competitive procurement process and monitoring by National Procurement Committee Improve clear lines of responsibilities by improving PPP unit to monitor and manage the liabilities in a single point • Education on clear goals & mutual benefit objectives • Educate on parties close cooperation and effective relationship management • Education on the PPPs arrangement
Adversarial culture	<ul style="list-style-type: none"> • Training and education in the behavioural attitudes • Education on well-defined communication system • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Private party's general practice or cultural differences	<ul style="list-style-type: none"> • Appoint Independent party who is mutually acceptable and who knows both industry, both cultures and traditions' and to be included in the contract • Improve and educate on parties' close cooperation & effective relationship management • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project
Lack of parties commitments or team spirit	<ul style="list-style-type: none"> • Improve and educate on parties' close cooperation & effective relationship management • Improve the knowledge on PPPs approach by proper training, workshops, seminars, study sessions, expert advice and practical experiences in the PPP project

While an infrastructure project is decided to develop under the PPP approach, a measurable output has to be specified during the process of implementing PPP infrastructure projects in order to mitigate the possible disputes. For that, government should give maximum support to the project by introducing or amending the existing system to suit to PPP approach. Therefore, following are the few strategies suggested to the GOSL to mitigate the disputes for future PPP projects in Sri Lanka.

Improve adequate knowledge on PPPs: Eleven out of twelve respondents mentioned that, PPPs projects participants were lacks in skills of PPP arrangement since the concept is new to Sri Lanka. Inadequate experience in PPP projects is major implication to the PPP disputes. Project participants should have adequate skills and knowledge to manage the PPPs contract over its life. Therefore, improve knowledge on the PPPs arrangement is necessary by having proper training, series of workshops, seminars, study sessions and practical experiences in the PPPs project.

Develop the PPPs legal and regulatory framework: This framework regime will spread over many legal instruments and is able to provide the clarity of government actions and assurance for the private party which its legitimate rights sufficiently protected. Development of strong legal and regulatory framework is necessary to the PPP projects in Sri Lanka. The private party and the GOSL should work under the clear legal and regulatory framework where accurately distribute the risks, responsibilities and benefits related to the PPP project which will give the parties more clarity, where the disputes will be mitigated. Moreover, it will facilitate investment in long-term and complex arrangement, reduce transaction cost, and ensure appropriate regulatory control, present legal and economic mechanism to enable the resolution of contract disputes. Developing a strong legal and regulatory framework will help to reduce the level of uncertainty around the PPP projects and it will increase the investor's confidence.

Develop the PPPs policy framework: The lack of predictability and inconsistencies in government policies with regard to private participation projects in infrastructure investments has regularly constrained private party desire to pursue investment. There is no PPPs policy in Sri Lanka to set out the intention to promote the PPPs in Sri

Lanka. The policy framework will provide the firm and long-term vision with regard to flow of the project to be developed under PPP approach. Moreover, it will provide the set of principles, guidelines, procedures and overall direction for development of PPP.

Develop PPP institutional framework or improve PPP unit: This is whereby internal capacity is built and responsibilities are assigned for promote, implement, and manage the PPP project. PB3 said that, Sri Lanka has PPP unit, however it has to be improved. The PPP unit should be able to provide for wide range of functions such as policy formulation, standardization, coordination, promotions, technical support and quality control. However, PB3 explained that, *“Sri Lankan’s ‘PPP unit’ are not coordinating with other regulatory authorities and there is no link between the PPP unit and other government agencies, which is the main problem in our country. They prepared some rules and regulations, however there is no integrated system, no proper communication”*. Moreover, QR1 & PR3 mentioned that, Sri Lanka’s PPP unit is not aware about the technical aspects about the PPP. Thus, the PPP unit need improvement to ensure the successful PPP.

Develop the PPP investment framework: PPP investment framework will provide the financial support mechanisms which will make project adequately profitable and safe to attract private sector interests. Therefore, there is a need to encourage the investors to invest their money to Sri Lankan PPPs, since Sri Lanka is mostly relying on foreign private partner to collaborate as PPP partner.

PPPs procurement guideline: PB3 mentioned that, procurement guideline for PPP is very important to mitigate the disputes. Further he said, currently there is no guideline for PPPs in Sri Lanka. The PPPs guideline should incorporate all the conditions that the parties should follow. However, when the parties draft the contract for PPP project, they are not incorporate all the minor conditions. They cannot give 100% solution in the contract document. There can be human errors”. Therefore, the necessity of preparing certain guideline for PPPs projects is crucial.

Develop the standard form of contract for PPP: Previous analysis revealed that, the parties used their own set of condition to proceed the PPP in Sri Lanka. Even though

there are several standard (FIDIC, SBD etc.) to do the construction work, requirement for project procured through PPP is different due to its nature and characteristics. Moreover, those standard cannot be directly applied to PPP, also respondents faced lot of issue when they transfer to PPP approach, which gave discrepancies and contradictions. Therefore, PPPs standard form of contract to be developed to mitigate the disputes.

Introduce Permanent Entities for PPP: PB3 declared that, there should be a permanent entity which should not be changed with the unstable political system of the country. The permanent entities should have the permanent rules and regulations. Whenever there are changes in the government, the internal institute or ministries also will change in Sri Lanka, where set of rules and regulations also will change. Since the different ministries have different set of rules and regulations, and which are not interconnected, the PPP agreement which made under the particular ministry will become invalid. The project participants also have to adopt the changes in the contract and have to follow new system. Sometimes, contract document also has to be revised. Unstable system of Sri Lanka will affect to PPPs project. Therefore, there should be permanent entities which should not change with the government.

Develop strong national policies for PPP: There are lacks of policy direction and weak and inconsistent policy has hindered growth in PPP. There is reversal of policy decision is frequently available in Sri Lanka. These are mainly due to the political instability. Therefore, establishment of strong national policy is another suggestion given by the respondents PR3 and QR1.

Improve the transparency procedure in PPP: Transparency in the PPP will reduce the unnecessary disputes between the parties as well as with general public. Transparency refers to the mode in which the design, origination of projects, selection and procurement process, the interests of all stakeholders, the restriction on usage of bribes and further forms of corruptions to triumph favors and consents for projects from governments etc. PB2 mentioned that, *“there are projects abandon, suspended, interrupted during the procurement process due to the uncertainty and political instability. If it is transparent, then no one can challenge, if they have obtained the*

parliament or whatever the approvals, then even government changes that cannot be changed". Therefore, it should be transparent especially for the kind of PPPs project since the PPPs often involve with high value and scope.

Coordination among the line ministries and institutions: It is also observed from the multiple respondents that, there are several PPPs projects operating in Sri Lanka under various government institute such as UDA, SLPA, RDA, CEB, BOI, NWS&D, Aviation Authority, Ministry of Mega Polis, NHDA etc. However, every unit had their own set of rules and regulations to operate the PPPs. There was no coordination among the line ministries and institutions and there were complicated overlapping mandates. The overlapping mandates add to inefficiency and confusion. When the private party approaches for the approvals, it caused unnecessary delays and confusions.

Strengthen the state guarantee: LO1 said that, strengthen the state guarantee is the another strategy to be taken in the PPPs projects. It will support when there is any political uncertainty. Further he mentioned that, Sri Lanka's PPP transactions are backed by full sovereign guarantees which have important fiscal implication to the GOSL, since the guarantees typically give rise to contingent liabilities on the public balance sheet. In Sri Lanka, the volume of sovereign guarantees issued does not capture the fully risk.

Conduct public awareness program: Another suggestion given by three out of twelve respondents is the public awareness to exchange the ideas of parties and explaining. PPP arrangement is not only between public and private partner. However, there are further external parties also such as general public, civil group societies, and end users etc. The public awareness should conduct to avoid unnecessary protest or opposition for the project. Moreover, it will make parties more receptive and answerable and improve user satisfaction.

4.10 Chapter Summary

This chapter discussed the data analysis and findings based on the interviews conducted with selected professionals. The next chapter will conclude the research explored.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

All the construction projects are prone to disputes, however, the projects procured through PPP approach is most subjected to disputes due its nature and characteristics. Disputes are the main factor, which prevent the successful completion of the project. Disputes, which subsequently end up in huge unintended costs, contract revocation, and reputation and relationship damage. It is difficult to entirely eliminate the disputes in PPPs; however it could be mitigated to the lowest level via strategies.

Accordingly, this research studies on how to mitigate the disputes in PPP in infrastructure projects in Sri Lanka. The literature provided the picture of disputes in PPP projects, causes of disputes in PPP projects. However, the literature suggested a gap in research area, thereby; this research focused on the disputes in PPP projects, causes of disputes in PPP projects in Sri Lanka and proposes the strategies to mitigate the disputes in PPP infrastructure projects in Sri Lanka.

Qualitative approach has been adopted to this study. The research required the views of professionals who have experience in PPP projects in Sri Lanka. Thus, interviews were conducted using semi-structured interview guideline with selected participants mainly from public party, private party. The views of legal officers and quality representatives also obtained since they appointed jointly by public and private party. The following sub-sections explain the attainment of the research objectives.

Objective 1

The first objective of this study was to review the nature and key features of Public Private Partnerships projects. Accordingly, the objective was framed to study about the PPP arrangement since it is new to Sri Lanka, inadequate knowledge on PPP exits among the industry practitioners. Thus, definitions of PPPs, nature and characteristics

of PPPs, forms and contractual arrangement of PPPs, risks in PPPs and overview of PPPs in Sri Lankan context were discussed through comprehensive literature review.

Findings revealed that enabling environment for PPPs (legal and regulatory framework, policy framework, institutional or administrative framework and investment framework) lacks a strong in Sri Lanka and requires additional capacity for absorb the PPPs. Moreover, it was found that PPP legislation never existed in Sri Lanka. However, the PPPs are currently being established through 1998 guidelines on Private Sector Infrastructure Projects – Part II under original procurement guidelines. The new guideline for PPPs is under preparation.

Objective 2

The second objective of this study was to identify the disputes in PPP infrastructure projects in Sri Lanka. These were achieved through interview and document review. However, the major disputes categories were identified through literature review based on the other countries' journals and articles, since there were lacks of study available on disputes in PPP in Sri Lanka. Accordingly, twelve types of major categories of disputes were identified through literature, which are related to land, design or specification, contract, construction, political, legal, market and revenue, economic, operation and maintenance, asset ownership and transfer, environmental, and the human behavior.

However, these literature findings were tested with PPP experts in Sri Lanka through interviews and identified based on Sri Lankan context. Accordingly, disputes laid on ten major areas in Sri Lanka, such as land, design and specification, contract, construction, political, legal, environmental, economic, market and revenue, and human behaviors as revealed by data analysis. The operation and maintenance, asset ownership and transfer related disputes have been omitted from this study since the respondents had less experience in the particular area and limitation also incorporated accordingly.

Objective 3

The third objective of this study is to investigate the causes behind the identified disputes in PPP infrastructure projects in Sri Lanka. These were achieved through interviews and document reviews. Furthermore, cause and effect diagrams were drawn to identify the root causes behind the identified disputes.

Finding revealed that, political, legal, environmental, market & revenue, and land related disputes were identified as high influential categories of disputes, in which the PPP projects are highly affected, since those are directly connected with government, policies, laws, rules and regulations, and the general public. Therefore, the parties have taken long time to settle the issues, where project incurred long delays, high cost, suspension and projects abandoned sometimes. The significant root causes found for these disputes in this study are frequent changes in government and policies, political uncertainty, lack of PPP legal and regulatory framework, lacks of policy framework, absence of investment framework, poor institutional framework, inadequate knowledge on PPP, lack of partnering approach especially from public party, absence of standard form of contract for PPP and absence of procurement guideline for PPP. Moreover, it can be said that, political and legal related issues are also the reason for other categories of disputes. Thus, it cannot be eliminated in the future PPP project as well.

Finding further revealed that, contract, design and specification, construction related disputes are identified as medium influencing categories, in which the PPP projects are considerable affected. The significant root causes for these disputes are poor quality of contract drafting, inadequate knowledge and experiences in PPPs, changes in technology, lack of partnership approach of parties, poor feasibility studies and poor risk allocation and management. Those factors can be eliminated by the time based on the experiences and when the PPPs projects get familiar to professional. In addition, human behavior related and economic related dispute categories are considered as less influential disputes factors. Also human behavior related disputes are laid in all type of disputes identified above, which is due to poor communication, lack of coordination, adversarial culture and cultural differences, lack of partnership practice. The root cause for the economic related disputes are changes in tax and foreign exchange rate, which

can be settled by allocating proper contingencies and enough contractual provision and those already practiced by the project practitioner.

Further, analysis divulged that PPPs nature and its characteristics also the reason for the disputes in PPPs projects, such as; multiparty participation, contributes of each participant, each participant tried to be a principal, complex nature of sharing responsibilities and risks, and long-term nature.

Objective 4

The fourth objective of this study was to propose strategies to mitigate the disputes in PPP infrastructure projects in Sri Lanka and it was achieved through the interviews, documentary reviews and the cause and effect diagrams.

Finding revealed that develop the strong legal and regulatory, policy, institutional and investment framework for PPP, enact firm national policies for PPP, introduce permanent entity with permanent rules and regulations, strengthen the state guarantee, improve transparency procedure, conduct public awareness program, develop proper guideline for PPP, develop standard form of contract for PPP, improve PPP unit to regulate the PPP projects in a single point, appoint steering committee to speed up the works, develop centralized legal system for PPP, improve adequate knowledge on PPP, re-negotiation and stepping clause, extensive stakeholders consultation in decision making are the most significant strategies which can suggest for the future PPP infrastructure projects in Sri Lanka to mitigate the disputes.

Moreover, comprehensive feasibility study including social impact study, market analysis, sensitivity analysis by obtain PPP expert's advice with PPP option analysis, proper risk allocation by obtain experts' advice, strengthening the technical team, public and private parties close cooperation and effective relationship management, clarity of roles and responsibilities of parties, proper communication system, increase the quality of PPP contract drafting by adopting all necessary contingencies and contract provision, obtain experts' advice throughout the PPP projects, appointment of independent partner to deal with any conflicted situation, proper project validation before implementation and proper negotiation are the most significant dispute

mitigation strategies those can be adopted to present PPP infrastructure projects to mitigate the disputes.

In addition to above, it has been observed that most of the dispute arose due to public parties' activities, which affected much to the project completion and budget. Meanwhile, less disputes encountered due to private party's activities, since the private party self-motive to accelerate the project to earn profit. Thus, the objectives of the current research were achieved through literature survey, interviews, and documentary reviews and cause and effect diagrams and the recommendation for the industry practitioners have been introduced.

5.2 Recommendations for industry practitioners

Since the PPP project is vital to Sri Lankan economic growth and it is committed to promoting the PPPs to the country, public party on behalf of GOSL could mainly able to negotiate with private party. Therefore, the public and private practitioners shall first attempt amicably settle the disputes through negotiations. In case of failing from negotiation, the parties shall consider another option which is appointment of a mutually agreeable independent expert to mitigate the disputes. Moreover, it is always recommended to obtain PPP expert's advice and appoint them throughout project, since Sri Lankan practitioners have inadequate knowledge on the PPP contract.

5.3 Further Studies

Following this research, the focus of further studies on the following areas seemed appropriate.

- Importance of proper PPPs enabling Environment to mitigate the disputes in PPPs projects in Sri Lanka
- Mitigating disputes in PPP infrastructure projects in Sri Lanka; Study within the Consortium.
- Disputes mitigation measures in PPPs projects in Sri Lanka: Study on other PPP models projects in Sri Lanka.
- Investigating disputes in operation and transfer stage of PPPs projects in Sri Lanka

REFERENCES

- Abednego, M. P., & Ogunlana, S. O. (2006). Good project governance for proper risk allocation in Public–private partnerships in Indonesia. *International Journal of Project Management*, 24, 622-634.
- Adnan, H., Shamsuddin, S. M., Supardi, A., & Ahmad, A. (2011). Conflict Prevention in Partnering Projects. *Procedia - Social and Behavioral Sciences*, 35, 772-781.
- Akintoya, A., Back, M., Hardcastle, C., & Chinyio, E. (2001). *Framework for risk assessment and management of private finance initiative projects*. Scotland, U.K: Glasgow Caledonian University.
- Akintoye, A., & Back, M. (2009). *Introduction: perspectives on PPP policy, finance and management*. Blackwell Publishing Ltd.
- Akintoye, A., & Kumaraswamy, M. (2016). *Public Private Partnerships: Research Roadmap – Report for Consultation*. Netherland: CIB General Secretariat.
- Akintoye, A., Beck, M., & Hardcastle, C. (2003). Introduction: public-private partnership in infrastructure development. In A. Akintoye, M. Beck, & C. Hardcastle, *Public-Private Partnership: Managing risks and opportunities* (pp. 15-24). United Kingdom: Blackwell Science Ltd.
- Akintoye, A., Beck, M., & Kumaraswamy, M. (2016). *Public Private Partnerships: A Global Review*. London and New York: Routledge.
- Alfen, H. W., Kalidindi, S. N., Ogunlana, S., Wang, S., Abednego, M. P., Frank-Jungbecke, A., et al. (2009). *Public-Private Partnership in Infrastructure Development: Case Studies from Asia and Europe*. Germany: Bauhaus-Universität Weima.
- Appuhami, R., Perera, S., & Perera, H. (2011). Coercive Policy Diffusion in a Developing Country: The Case of Public Public Private Partnerships in Sri Lanka. *Journal of Contemporary Asia*, 41 (3), 431-451.

- Arms, M. (2011). The Concept to stop a simple problem spiraling from a breeze to a whirlwind. *An Introduction to International Adjudication* , 11-24.
- Asian Development Bank. (2011). *Country Partnership Strategy: Sri Lanka 2012-2016*. Sri Lanka: Asian Development Bank.
- Asian Development Bank. (2008). *Public-Private Partnership Handbook*. Philippines: Asian Development Bank.
- Athanasakis, D. (2007). *Effective dispute regimes for large infrastructure projects in Greece*. London: 3rd Hellenic Observatory PhD Symposium.
- Australian Government. (2008). *National Public Private Partnership Guidelines: Overview*. Australia: Department of Infrastructure and Regional Development.
- Babatunde, S. O., Perera, S., Zhou, L., & Udejaja, C. (2015). Barriers to public private partnership projects in developing countries: A case of Nigeria. *Engineering Construction and Architectural Management* , 22 (6), 669-691.
- Baxter, D. (2014, November 1). *Dispute Resolution in PPP Projects*. Retrieved June 27, 2017, from LinkedIn: <https://www.linkedin.com/pulse/20141101213519-51548441-dispute-resolution-in-ppp-projects>
- Bhavan, Y. (2012). *Institutional Mechanism for Monitoring of PPP Projects*. New Delhi: Planning Commission Government of India.
- Board of Investment Sri Lanka. (2009). *Public Private Partnerships Awareness Workshop*. Sri Lanka: Board of Investment Sri Lanka.
- Bodart, S. Y. (2014). Dispute Prevention Approaches in PPP Projects - Practical Issues. *Construction Law Journal* , 30 (3), 139-150.
- Bohmer, A. (2010). *Key elements of a public-private partnership framework*. Paris: Organisation for Economic Co-operation and Development [OECD].

- Boussabaine, A. (2007). *Cost Planning of PFI and PPP Building Projects*. London and New York: Routledge Taylor & Francis Group.
- Bovaird, T. (2004). Public-private partnerships: from contested concepts to prevalent practice. *International review of administrative sciences* , 70 (2), 199-215.
- Byiers, B., Puppenthal, S. G., Huyse, H., Rosengren, A., & Vaes, S. (2016). *Principles for public-private partnerships – towards sustainability?* Cambodia: Research Institute for work and society.
- Cakmak, E., & Cakmak, P. I. (2014). An analysis of causes of disputes in the construction industry using analytical network process. *Procedia - Social and Behavioral Sciences* , 109, 183-187.
- Chern, C. (2015). *Chern on Dispute Boards: Practice and Procedure*. New York: Informa Law from Routledge.
- Cheung, S. O. (1999). Critical factors affecting the use of alternative dispute resolution processes in construction. *International Journal of Project Management* , 17, 189–194.
- Cheung, S. O., Suen, H. C., & Lam, T. I. (2002). Fundamentals of alternative dispute resolution processes in construction. *Journal of Construction Engineering and Management* , 128, 409-417.
- Chisa, O. S., Kayode, O. V., Ikeni, N. O., & Gambo, A. A. (2015). Public- Private Partnership (Ppp) As Catalyst for Sustainable Infrastructural Development (Effort of Rivers, Cross Rivers, Oyo and Lagos State Government). *International Journal of Engineering Science Invention* , 4 (2), 53-69.
- Chou, J.-S., & Lin, C. (2013). Predicting Disputes in Public-Private Partnership Projects: Classification and Ensemble Models. *Journal of Computing in Civil Engineering* , 27 (1), 51-60.
- Collin, S. (1998). In the twilight zone: a survey of public-private partnerships in Sweden. *Public Productivity and Management Review* , 21 (3), 272-283.

- Cooperative Research Centre for Construction Innovation [CRCCI]. (2009). *Guide to Leading Practice for Dispute Avoidance and Resolution*. Australia: Cooperative Research Centre for Construction Innovation.
- Creswell, J. W. (2003). *Research design: quantitative and mixed methods approaches*. India: Sage publications.
- Currie, D., & Teague, P. (2015). Conflict Management in Public–Private Partnerships: The Case of the London Underground. *Negotiation Journal*, 31 (3), 237-266.
- Davies, P., & Eustice, K. (2005). *Delivering the PPP promise: A review of PPP issues and activity*. PriceWaterhouseCoopers.
- Dawson, C. (2002). *Practical research methods: A user friendly guide to mastering research techniques and projects*. United Kingdom: How to books Ltd.
- Delmon, J. (2015). *Creating a Framework for Public-Private Partnership (PPP) Programs: A Practical Guide for Decision-makers*. Washington: World Bank Group.
- Delmon, J. (2009). *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks* (2nd Edition ed.). Netherlands: Kluwer Law International.
- Delmon, J. (2009). *Private Sector Investment in Infrastructure: Project Finance, PPP Projects and Risks*. Netherlands: Kluwer Law International.
- Delmon, J. (2011). *Public-Private Partnership Projects in Infrastructure: An Essential Guide for Policy Makers* (1st Edition ed.). New York: Cambridge University Press.
- Delmon, J. (2017). *Public-Private Partnership Projects in Infrastructure: An Essential Guide for Policy Makers* (2nd Edition ed.). New York: Cambridge University Press.
- Department of Economic Affairs [DEA]. (2014). *Developing a Framework for Renegotiation of PPP Contracts*. India: Ministry of Finance, Government of India.

- Diaz, M. (2017). *Resolving disputes in Public Private Partnership Arrangement*. Retrieved September 21, 2017, from Diazreus: <http://diazreus.com/resolving-disputes-in-privatepublic-partnership-agreements/>
- Diekmann, J., & Girard, M. (1995). Are contract disputes predictable? *Journal of Construction Engineering and Management* , 355-362.
- Dimitrios, A. (2007). *GAMESMANSHIP, third parties and arbitration: reflecting on the paradigm of PPP disputes*. United Kingdom: Minuch Personal RePEc Archive.
- Duffield, C. (2003). A research agenda for public private partnerships. *Public Infrastructure Bulletin* , 1 (1), 11-15.
- Easterby-Smith, M., Thorpe, R., & Lowe, A. (2002). *Management Research: An Introduction*. London: SAGE Publications Ltd.
- European Commission. (2006, January 2). *Green Paper on public-private partnerships*. Retrieved August 4, 2017, from EUR-Lex Access European Union Law: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:l22012>
- European Commission. (2004, April 30). *Green Paper on Public-Private Partnerships and Community Law on Public Contracts and Concessions*. Retrieved August 4, 2017, from EUR-Lex Access to European Union Law: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:52004DC0327>
- European Commission. (2003). *Guidelines for successful public-private*. Belgium: Brussels.
- Farlam, P. (2005). *Assessing Public–Private Partnerships in Africa*. South Africa: The South African Institute.
- Fellows, R., & Liu, A. (2003). *Research methods for construction* (2nd Edition ed.). United Kingdom: Blackwell Science Ltd.
- Finance Commission of Sri Lanka [FCSL]. (2017, 8 September). *Public Private Partnership Approach: Theory and Practice*. Retrieved September 22, 2017,

from Finance Commission of Sri Lanka: <http://fincom.gov.lk/public-private-partnership-approach-theory-and-practice/>

- Gajurel, A. (2013). *Performance-Based Contracts for Road Projects: Comparative Analysis of Different Types*. New Delhi, India: Springer.
- Garg, S., & Garg, S. (2017). Rethinking Public-private Partnerships: An Unbundling Approach. *Transportation Research Procedia* , 25, 3789–3807.
- Gebken, R. J., & Edward, G. G. (2006). Quantification of costs for dispute resolution procedures in the construction industry. *Journal of Professional Issues in Engineering Education and Practice* , 132, 264–271.
- Government of Kerala. (2015). *PPP Models in Practice*. Retrieved August 14, 2017, from Kerala State Planning Board: <http://spb.kerala.gov.in/index.php/know-ppp/ppp-models.html>
- Grant, T. (1996). Keys to successful public-private partnerships. *Canadian Business Review* , 23 (3), 27-28.
- Grimsey, D., & Graham, R. (1997). PFI in NHS. *Engineering, Construction and Architectural Management* , 4 (3), 215-231.
- Grimsey, D., & Lewis, M. K. (2002). Evaluating the risks of public private partnerships for infrastructure projects. *International Journal of Project Management* , 20 (2), 107-118.
- Grimsey, D., & Lewis, M. K. (2004). *Public Private Partnerships : The Worldwide Revolution in Infrastructure Provision and Project Finance*. Edward Elgar Publishing Limited.
- Guba, E., & Lincoln, Y. (1994). Competing paradigms in qualitative research. In N. K. Denzin, & Y. Lincoln, *Handbook of qualitative research*. Newbury Park: Sage publication.
- Gubrium, J. F., & Holstein, J. A. (2002). *Handbook of Interview Research: Context and Method*. CA: Sage: Thousand Oaks.

- Gunawansa, A., Bhullar, L., & Hoque, S. F. (2012). *Private – Public Partnerships in Urban Water Supply Sector: A Study of the Regional Trends*. Singapore: National University of Singapore: Lee Kuan Yew School of Public Policy.
- Guthrie, J., Petty, R., & Yongvanich, K. (2004). Using content analysis as a research method to inquire into intellectual capital reporting. *Journal of Intellectual Capital* , 5 (2), 282-293.
- Hammami, M., Ruhashyankiko, F. J., & Yehoue, E. (2006). *Determinants of public-private partnerships in infrastructure*. IMF Institute.
- Harisankar, K. S., & Sreeparvathy, G. (2013). Rethinking Dispute Resolution in Public–Private Partnerships for Infrastructure Development in India. *Journal of Infrastructure Development* , 5 (1), 21-32.
- Herpen, G. V. (2002). *Public Private Partnerships, the advantages and disadvantages examined*. United Kingdom: Association for European Transport.
- Hope, A. (2012). Contextual Factors influencing Sustainability in Private Finance Initiative (PFI) Housing in the UK. *Built Environment eJournal* , 1 (43).
- Iboh, A. A., Adindu, C. C., & Oyoh, A. J. (2013). Public Private Partnership Construction Project Disputes In Nigeria. *Jorind* , 11 (1), 6-11.
- Ibrahim, A., Price, A., & Dainty, A. (2006). The analysis and allocation of risks in public private partnerships in infrastructure projects in Nigeria. *Journal of Financial Management of Property and Construction* , 11 (3), 149-163.
- Jacobi, J. (2009). *The Public-Private Partnership Infrastructure Opportunity: Enabling Infrastructure Build Out in the United States*. Raleigh: ScottMadden Management Consultants.
- Jaffar, N., Tharim, A. A., & Shuib, M. N. (2011). Factors of conflict in construction industry: a literature review. *Procedia Engineering* , 20, 193-202.
- Jergeas, G., & Hartman, F. (1994). Contractors' construction claims avoidance. *Journal of Construction Engineering and Management* , 120 (3), 553-560.

- Jihong, W., & Xiaodan, L. (2017, June 30). *Examining common types of PPP project disputes*. Retrieved July 21, 2017, from China Business Law Journal: <https://www.vantageasia.com/examining-common-types-of-ppp-project-disputes/>
- Jones, D. (2006). Construction project dispute resolution: Options for effective dispute avoidance and management. *Journal of Professional Issues in Engineering Education and Practice* , 132, 225–235.
- Jorgensen, P. W., & Lundgaard, M. M. (2016). *The Projects and Construction Review*. United Kingdom: Law Business Research Ltd.
- Kissiedu, M. A. (2009). *The development of Appropriate Strategies for the Prevention of Construction Disputes in Ghana*. Kwame Nkrumah University of Science and Technology.
- Klenke, K. (Ed.). (2008). *Qualitative research in the study of leadership*. UK: Emerald Group Publishing.
- Koppenjan, J. F., & Enserink, B. (2009). Public–private partnerships in urban infrastructures: reconciling private sector participation and sustainability. *Public Administration Review* , 69 (2), 284-296.
- Koscielniak, H., & Gorka, A. (2016). PPP as a Method of Financing Sustainable Urban Development. *Transportation Research Procedia* , 16, 227 – 235.
- Kothari, C. R. (2009). *Research methodology: methods and techniques*. New Delhi: New Age International Publishers.
- Krishnaswamy, G. (2016, March 27). *Let's believe in conciliation*. Retrieved November 10, 2019, from The Hindu Business Line: <https://www.thehindubusinessline.com/opinion/lets-believe-in-conciliation/article8402420.ece>
- Kumaraswamy, M. (1997). Conflicts, claims and disputes in construction Conflicts. *Claims and disputes in construction* , 4 (2), 66-74.

- Kurniawan, F., Mudjanarkoa, S. W., & Ogunlana, S. (2015). Best practice for financial models of PPP projects. *The 5th International Conference of Euro Asia Civil Engineering Forum (EACEF-5)* (pp. 124-132). Elsevier Ltd.
- Kwakye, A. A. (1997). *Construction project administration in practice*. Harlow : Longman [co-published with] Chartered Institute of Building.
- Leung, M. Y., Chong, A., Ng, S. T., & Cheung, M. C. (2004). Demystifying stakeholders' commitment and its impacts on construction projects. *Construction Management and Economics* , 22 (7), 701-715.
- Levy, S. M. (1996). *Build Operate Transfer: Paving the Way for Tommorrow's Infrastructure*. New York: John Wiley & Sons, Inc.
- Li, B., & Akintoye, A. (2003). An overview of public-private partnership. In A. Akintoya, M. Beck, & C. Hardcastle, *Public-Private Partnerships: Managing risks and opportunities* (pp. 3-30). United Kingdom: Blackwell Science Ltd.
- Li, B., Akintoye, A., & Hardcastle, C. (2001). Risk analysis and allocation in public private partnership projects. *17th Annual ARCOM Conference. 1*, pp. 895-904. United Kingdom: University of Salford.
- Li, B., Akintoye, A., & Hardcastle, C. (2001). *VFM and Risk Allocation Models in Construction PPP Projects*. Glasgow: Glasgow Caledonian University.
- Madawela, D. (2007). *Public Private Partnerships, Best Way Forward for Sri Lanka*. Sri Lanka: Research Intelligence Unit Publications.
- McCann, S. (2014). *A Public Sector Governance Model for Public Private Partnership: Integrating Partnership, Risk and Performance Management in the Operating Phase*. RMIT University.
- McInnis, A. (2003). New Forms of Non-Adversarial Contracting Focusing upon the New Engineering Contract. *Second International Conference on Construction in the 21st Century. "Sustainability and Innovation in Management and Technology."*

- Megens, P. (1997). Construction Risk and Project Finance – risk allocation as viewed by contractors and financiers. *The International Construction Law Review* , 14 (1), 5-32.
- Ministry of Finance. (2009). *National Program for Public Private Partnership*. Public Private Partnership Central Unit.
- Ministry of Finance Singapore. (2012). *Public Private Partnership HandBook*. Singapore: Ministry of Finance.
- Mitchell, M. L., & Jolley, J. M. (2009). *Research design explained*. USA: Cengage Learning.
- Moore, C., & Pierre, J. (1988). Partnership or privatisation? The political economy of local economic restructuring. *Policy and Politics* , 16 (3), 169-178.
- Moskalyk, A. (2011). *Public-Private Partnerships in Housing and Urban Development*. Nairobi: UN-HABITAT.
- Mouraviev, N., & Kakabadse, N. (2017). *Public-Private Partnerships in Transitional Nations: Policy, Governance and Praxis*. United Kingdom: Cambridge Scholars Publishing.
- Munya, A. (2010). *The Advantages and Risks of Pursuing Public Private Partnerships Elements of Express Lane Networks in California, USA: Lessons for Developing Countries*. Nairobi Kenya: 46th ISOCARP Congress.
- Nathan Associates. (2017). *Public-Private Partnerships: A Basic Information for Non-Specialists*. United Kingdom: Economic and Private Sector - Professional Evidence and Applied Knowledge Services.
- National Audit Office [NAO]. (2001). *Managing the Relationship to Secure a Successful Partnership in PFI Projects*. London: The Stationery Office.
- National Audit Office [NAO]. (2009). *Private Finance Projects: Paper for the Lords Economic Affairs Committee*. London.

- Navarro, A. M. (2005). *The Treatment of Public-Private Partnership Assets in the GFSM 2001 Framework*.
- Navigant Construction Forum. (2016). *Public-Private Partnership Projects - What, Why & How is risk allocated?* United Kingdom: Navigant Construction Forum.
- Norment, R. B. (2000). *Public Private Partnership*. Retrieved August 4, 2017, from National Council for Public Private Partnerships (NCPPT) of the USA: <http://www.ncppp.org/>
- Odero, M. L. (2013, April 10). *Public-private partnerships and the development of infrastructure in Kenya: understanding and resolving disputes*. Retrieved August 25, 2017, from University of Nairobi Research Archive: <http://erepository.uonbi.ac.ke:8080/handle/11295/15690?show=full>
- Osei-Kyei, R., & Chan, A. P. (2015). Developing transport infrastructure in Sub-Saharan Africa through public-private partnerships: policy practice and implications. *Transport Reviews*, 36 (2), 170-186.
- Osei-Kyei, R., & Chan, A. P. (2017b). Factors attracting private sector investments in public-private partnerships in developing countries: a survey of international experts. *Journal of Financial Management of Property and Construction*, 22 (1), 92-111.
- Osei-Kyei, R., Chan, A. P., Yao, Y., & Mazher, K. M. (2019). Conflict prevention measures for public-private partnerships in developing countries. *Journal of Financial Management of Property and Construction*, 24 (1), 39-57.
- Osei-Kyei, R., Chan, A. P., Yu, Y., Chen, C., & Dansoh, A. (2018). Root causes of conflict and conflict resolution mechanisms in public-private partnerships: Comparative study between Ghana and China.
- Otairua, A., Umar, A. A., Zawawi, N. A., Sodangi, M., & Hammad, D. B. (2014). Slow adoption of PPPs in developing countries: Survey of Nigerian Construction professionals. *Procedia Engineering* (77), 188-195.
- Pantouvakis, J. P., & Striagka, F. (2003). The Governmental Role in the Development of PFI/PPP Scheme ., (pp. 257-262). Hong Kong.

- Parvu, D., & Olteanu, C. V. (2009). Advantages and Limitations of the Public Private Partnerships and the Possibility of using them in Romania. *Tranylvanian Review of Administrative Sciences* , 189-198.
- Patrinos, H. A., Osorio, F. B., & Guaqueta, J. (2009). *The Role and Impact of Public-private Partnerships in Education*. Washington: The World Bank.
- Perera, W. S. (2011). *Public-Private Partnership for Infratructure Development in Sri Lanka*. Sri Lanka: University of Moratuwa.
- Peter, S. (2010). *PFI/PPP Disputes*. Retrieved September 13, 2017, from Sheridan Gold LLP : http://www.sheridangold.co.uk/expertise_pfi_disputes.html
- Peters, B. G. (1998). 'With the little help of our friends': public private partnerships as institutions and instruments. In J. Pierre, *Partnerships in Urban Governance: European and American Experience* (pp. 11-33). United Kingdom: Palgrave Macmillan.
- PPP World Bank Group. (2019, April 22). *PPP World Bank Group*. Retrieved November 05, 2019, from Public Private Partnership Legal Resource Center: <https://ppp.worldbank.org/public-private-partnership/legislation-regulation/framework-assessment/legal-environment/land-environment-social-issues>
- Quium, A. A. (2010, October 4-8). Legal Framework for PPPs Laws, Contract, and Dispute Resolution. Seoul, Korea: Republic of Korea.
- Rankin, M., Nogales, E. G., Santacoloma, P., Mhlanga, N., & Rizzo, C. (2016). *Public-private partnerships for agribusiness development: A review of international experiences*. Rome: Food and Agriculture Organization of the United Nations.
- Reijniers, J. J. (1994). Organization of Public-Private Partnership Projects: The Timely Prevention of Pitfalls. *International Journal of Project Management* , 12 (3), 137-142.
- Ren, Z., Anumba, J., & Ogwu, O. (2001). Construction claim management: towards and agent-based approach. *Engineering, Construction and Architectural Management* , 185-197.

- Roy, D., Kalidindi, S., & Soundararajan, A. (2014). Risk Allocation in Concession Agreements in PPP Road Projects in India. In K. S. Sridhar, & G. Wan, *Urbanization in Asia: Governance, Infrastructure and the Environment* (pp. 119-136). India: Springer.
- Sambrani, V. N. (2014). PPP from Asia and African Perspective towards Infrastructure Development: A Case Study of Greenfield Bangalore International Airport, India. *Procedia - Social and Behavioral Sciences* (157), 285-295.
- Schepper, S. D., Doooms, M., & Haezendonck, E. (2014). Stakeholder dynamics and responsibilities in Public–Private Partnerships: A mixed experience. *International Journal of Project Management* , 32 (7), 1210-1222.
- Seungwoo, S. (2012). *Legal Analysis on Public-Private Partnerships regarding Model PPP Rules*. Faculty of Law at the Dankook University in Republic of Korea.
- Sheridan, P. (2009). PFI/PPP Disputes (Part 1). *Heinonline* , 93-103.
- Sinha, A. K., & Jha, K. N. (2019). Dispute Resolution and Litigation in PPP Road Projects: Evidence from select Cases. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* , 12 (1).
- Sinha, A. K., & Jha, K. N. (2019). Impact of Judicial Overreach on PPP Construction Projects. *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* , 11 (4).
- Sirimanna, B. (2019, April 7). *Business Times*. Retrieved October 11, 2019, from the Sunday Times: <http://www.sundaytimes.lk/190407/business-times/ppp-infrastructure-project-procurement-undergoes-reforms-343714.html>
- Sirimanna, B. (2016, October 16). *New public-private unit to improve public services*. Retrieved August 1, 2017, from the SUNDAY TIMES: <http://www.sundaytimes.lk/161016/business-times/new-public-private-unit-to-improve-public-services-212197.html>
- Solheim-Kile, E., Lædre, O., Lohne, J., & Meland, O. H. (2014). Characteristics of Public-Private Partnerships in Norway. *Contract and Cost Management Proceedings IGLC-22*, (pp. 233-244). Oslo, Norway.

- South African National Treasury. (2007). *Introducing Public Private Partnerships in South Africa*. South Africa: Minister of Finance.
- Sudic, S., Cirovic, G., & Mitrovic, S. (2013). Risk analysis and management on Public Private Partnership Projects (PPP) in Serbia. *Technology and Management in Construction* , 5 (1), 696-702.
- Tang, L. Y., Shen, Q., & Cheng, E. W. (2010). A Review of Studies on Public Private Partnership Projects in the Construction Industry. *International Journal of Project Management* , 28 (7), 683-694.
- Tanzania, A. (2008). *Procurement Cycle, Contract Compliance and Performance Monitoring for Public-Private Partnership Projects*. Institute for Public Private Partnerships.
- Tarantello, R., & Seymour, J. (1998). Affordable housing through non-profit/ private-public partnerships. *Real Estate Issues* , 23 (3), 15-17.
- Tavares, S. A. (2012). *The Contract Management in Public-Private Partnership*.
- Thamhain, H. J., & Wilemon, D. L. (1975). Conflict Management in Project Life Cycles”, ,. *Sloan Management Review* , 16 (3), 31-50.
- The Asia Foundation. (2010). *Promoting Public-Private Partnership in Bangladesh*. Dhaka, Bangladesh: The Asia Foundation.
- The Organization for Economic Co-operation and Development [OECD]. (2013). *Public-Private Partnerships in the Middle East and North Africa: A Handbook for Policy Makers*. OECD.
- The World Bank Group. (2016). *Sri Lanka PPP Diagnostic Note : Accelerating infrastructure investment through PPPs*. South Asia: The World Bank Group.
- United Nations Development Programme [UNDP]. (2017). *Implementation – Managing Conflict*. Retrieved July 21, 2017, from United Nations Development Programme : Public Private Partnerships for the Urban Environment: <http://pppue.undp.2margraf.com/en/20.htm>

- United Nations Development Programme [UNDP]. (2013). *Public Private Partnerships Guidelines for Local Governments*. Uganda: Ministry of Local Government.
- United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP]. (2011). *A Guidebook on Public-Private Partnership in Infrastructure*. Bangkok: UNESCAP.
- United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP]. (2008). *Public Private Partnerships in Infrastructure Development: A Primer*. Bangkok,: UNESCAP.
- United Nations Economic and Social Commissions for Asia and the Pacific [UNESCAP]. (2017). *PPP Policy, Legal and Institutional Frameworks in Asia and the Pacific*. United Nations Economic and Social Commissions for Asia and the Pacific [UNESCAP].
- United Nations. (2004). *Governance in Public Private Partnerships for Infrastructure Development*. Geneva: United Nations Economic Commission for Europe.
- United States Agency International Development [USAID]. (2016). *Report on Sri Lanka's current PPP Environment and Recommendations for future PPP strategy: Leadership in Public Financial Management II*. Nathan Associates Inc.
- Verma, S. (2010). Government Obligations in Public-Private Partnership Contracts. *Journal of Public Procurement* , 10 (4), 564-598.
- Wibowo, A. (2005). *Private participation in transport : case of Indonesia's Build, Operate, Transfer (BOT) toll roads*. Berlin: Technical University of Berlin.
- Wigley + Company. (2012, 4 December). *NZ PPPs – dealing with and avoiding disputes*. Retrieved Spetember 18, 2017, from Lexology: <https://www.lexology.com/library/detail.aspx?g=6ab0041e-778e-426b-a9fb-55d560153906>
- Wijesinghe, T. (2018, October 11). *Presentations of Technical Session - 31st Annual Conference of the OPA*. Retrieved September 19, 2019, from OPA: Organisation of Professional Associations of Sri Lanka:

<http://opasrilanka.org/wp-content/uploads/2018/10/4-TW-Presentation-on-PPPs.pdf>

- Williams, T. P. (2010). *Analysis of the London Underground PPP Failure*. South Lake Tahoe: Engineering Project Organizations Conference.
- Williams, T. P. (2003). *Moving to Public-Private Partnerships: Learning from Experience Around the World. New Ways to Manage Series*. Washington: IBM Endowment for the Business of Government.
- Williamson, O. E. (1979). Transaction cost economics: The governance of contractual relations. *Journal of Law and Economics* , 22, 233–262.
- World Bank Group. (2016, July 13). *Public-Private-Partnership in Infrastructure Resource Center*. Retrieved September 22, 2017, from World Bank Group: <https://ppp.worldbank.org/public-private-partnership/legislation-regulation/framework-assessment>
- World Bank Group. (2009). *Toolkit for Public-Private Partnerships in Roads and Highways*.
- Yongjian, K., ShouQing, W., Albert, C. P., & Esther, C. (2009). Research Trend of Public-Private Partnership in Construction Journals. *Construction Engineering and Management*.
- Zou, W., Kumaraswamy, M., Chung, J., & Wong, J. (2014). Identifying the critical success factors for relationship management in PPP projects. *International Journal of Project Management* , 32 (2), 265-274.
- Zou, W., Zhang, J., & Kumaraswamy, M. (2012). Developing Sustainable Relationships through Public Private People Partnership (4P) Projects. *World Construction Conference 2012 – Global Challenges in Construction Industry* (pp. 452-459). Colombo, Sri Lanka : University of Hong Kong.

APPENDICES

Appendix A: Summary of causes and strategies for PPP disputes

Appendix A (1): Land related disputes

Respondent	Related issues /Causes	Mitigation strategies which respondents have taken
Delay in land acquisition		
LO1	Delay in land acquisition due to following; <ul style="list-style-type: none"> • Policy changes • Litigation or court proceeding • Bureaucracy or procedure to be followed by private party in public sector agency • Environmental approval clearance • Ownership issues 	<ul style="list-style-type: none"> • Beforehand policies must be discussed, negotiated and agreed. • GOSL have to have the firm national policy for the PPPs approach • GOSL should minimize the bureaucracy to facilitate PPP • Adequate compensation is to be paid by the government to the affected parties. • Comprehensive due diligence studies being done with regard to the applicable regulations, environmental and otherwise, • Compliance and then modifying and including them as obligations in the contract for the public sector partner to provide. • Regulatory requirements to be provided by the public sector partner in the contract very comprehensively • Develop the strong enabling environment for PPPs
PB2	Delay in land acquisition due to following; Lack of legal provision or procedure to acquire the reclaimed land	<ul style="list-style-type: none"> • Comprehensive feasibility studies to be completed before start the project • Develop the legal framework for the land reclamation type of project before start
PB3	Delay in land acquisition due to Ownership issues within the public agencies. It is due to; <ul style="list-style-type: none"> • Improper feasibility study • Lack of legal provision • Lack of clear lines of responsibilities within the public party's agency, • Lack of coordination among the public party's agencies. 	<ul style="list-style-type: none"> • Comprehensive feasibility studies • Develop the proper legal provision before enter into the contract • Improve clear lines of responsibilities • GOSL have to have the master plan to absorb these kind of projects
PR1 & PB5	Delay in land acquisition due to following; <ul style="list-style-type: none"> • Land encroachment by general public 	<ul style="list-style-type: none"> • Proper communication with general public • Land matters can be closed up by proper compensation • Public awareness should be conducted
PR4	Delay in providing required land compensation <ul style="list-style-type: none"> • Improper feasibility studies • Insufficient money to provide the required compensation 	<ul style="list-style-type: none"> • Proper feasibility study before entering to tendering • Adequate compensation to be paid •
PB1	Delay in land acquisition due to following; <ul style="list-style-type: none"> • Environmental clearance 	<ul style="list-style-type: none"> • Have to get the EIA clearance before going for PPP contract
Restrictions on transfer of ownership rights		
PB2, PB3 and PR2	Restrictions on transfer of ownership rights	<ul style="list-style-type: none"> • Long term leasing • Beforehand policies must be discussed, negotiated and agreed. • Comprehensive due diligence studies being done with regard to the applicable regulations, environmental and otherwise, • Regulatory requirements to be provided by the public sector partner in the contract very comprehensively • Develop the strong enabling environment for PPPs

Appendix A (2): Design or specification related disputes

Respondent	Related issues	Mitigation strategies which respondents have taken
Design and scope changes		
PB3 & PB5	Less power for public party to control the private party's design	<ul style="list-style-type: none"> • Appoint Quality representative to ensure the design quality
PB3 PR3 QR1 QR2	Changes in the design or scope by the private party due to following; <ul style="list-style-type: none"> • Sort of a technical nature • Inadequate specification 	<ul style="list-style-type: none"> • In-house meetings, discussion, Negotiations, • Experts' advice from relevant universities, institutions, archaeological department • Hired independent partner
PR1	Changes in the design or scope by the private party due to following; <ul style="list-style-type: none"> • Physical constraint. • Designs were not clear at design stage 	<ul style="list-style-type: none"> • Negotiated and mutually agreed for changes
PB1	Changes in the design or scope by the private party due to following; <ul style="list-style-type: none"> • Technology ignorance at the design stage • Lack of experiences in PPPs 	<ul style="list-style-type: none"> • Strengthening of the technical team • Increase the quality of contract drafting by incorporating the condition regards to technical team
LO1	Scope changed by extending area of land reclamation in Colombo project due to the <ul style="list-style-type: none"> • Lack of funds to compensate the delay payment of private party 	<ul style="list-style-type: none"> • Negotiations, • It was a mandatory delay • Proper feasibility studies
Unavailability of information		
LO1 PR4	Delayed by public party to provide necessary information to private partner. Due to the Bureaucracy of GOSL or ignorance or negligence	<ul style="list-style-type: none"> • Bureaucracy delay is mandatory. Therefore have to account the flat time to the projects • Appoint the steering committee to speed up the works
PB5	Public party did not provide soil investigation report to private party for the design work due to <ul style="list-style-type: none"> • Ignorance or negligence • Non-performance of contractual obligation • Due to lack of partnership 	<ul style="list-style-type: none"> • Compensation and settled through negotiation by allowing additional floors to reimburse the loss
Innovative design or changes in technology		
PB3 PR3 QR1QR2 & contract document	Design changes due to the new technology (HDPE pipe to SRCPE)	<ul style="list-style-type: none"> • In-house meetings, discussion, Negotiations, • Experts' advice from relevant universities, institutions, archaeological department • Hired independent partner
Inadequate or incomplete Specification		
PR3 PR2 QR2	Specification not clearly defined by the private party. <ul style="list-style-type: none"> • Due to technology ignorance • Lack of knowledge in PPP • Lack of feasibility studies 	<ul style="list-style-type: none"> • Strengthening of the technical team • Increase the quality of contract drafting by incorporating the condition regards to technical team • Improve the knowledge on PPPs • Improve the feasibility studies
Inadequate or excessive Pricing Mechanism		
PB1	Public party signed the contract for excessive pricing mechanism. Due to; <ul style="list-style-type: none"> • Ignorance by the public party • Inadequate knowledge in PPPs contract 	<ul style="list-style-type: none"> • Due diligence • Improve the knowledge on PPPs project
PB4	PPPs project re-tendered due to inadequate pricing in the contract <ul style="list-style-type: none"> • Ignorance by the public party • Inadequate knowledge in PPPs contract 	<ul style="list-style-type: none"> • Due diligence • Improve the knowledge on PPPs project
Design error or the quality		
PR2	Design failure occurred due to environmental aspect. Reason for this is, no proper feasibility studies done.	<ul style="list-style-type: none"> • Proper feasibility studies
PR2	Two different jetties have constructed in two	<ul style="list-style-type: none"> • Proper feasibility studies

	<p>different levels. Rectification work done by private party at their cost</p> <ul style="list-style-type: none"> • Private party did not do the feasibility study before takeover the project • Risks taken over by private party 	<ul style="list-style-type: none"> • Proper project assessment before takeover the project
--	---	---

Appendix A (3): Contract related disputes

Respondent	Related incidents	Mitigation strategies which respondents have taken
• Poor quality of contract drafting		
Discrepancies in the contract		
PB3	<ul style="list-style-type: none"> • Dispute due to unavailability of firm standard document for PPP • Initially private party didn't agree to incorporate any standard to the project. After conflicts and during the construction, they agreed to have standard. • They used several standard documents for the project which caused confusion to the parties. 	<ul style="list-style-type: none"> • Discussion, Negotiation • Increase the quality of contract drafting • Appointing the expert • Improve adequate skills on PPP arrangement • Develop the standard form of contract for PPP
QR2	<ul style="list-style-type: none"> • Contract changed from EPC turnkey to FIDIC red book, • There should be an "Engineer" for the project as per FIDIC red book. However, there is no 'Engineer' in that project and that was a primary failure. 	<ul style="list-style-type: none"> • Negotiation • Increase the quality of contract drafting • Obtain expert's advice • Improve adequate skills on PPP arrangement
QR1	<ul style="list-style-type: none"> • Due to several documents with various information gave ambiguities • Sometimes private party used tripartite agreement, sometimes EPC contract, Sometimes their own specification, design 	<ul style="list-style-type: none"> • Series of meetings, the technical notes, technical explanations. • Negotiation • Hired few of expertise from local and foreign expertise, we took what is their opinions and come across to the final solution. • The parties tried to develop their knowledge about the contracts, how it's worked with this requirement and all.
PR1	<ul style="list-style-type: none"> • SBD4 format was converted to PPP arrangement. There was no proper transfer. It was due to inexperience in the PPP arrangement; since that was the first project they have conducted in this PPP nature 	<ul style="list-style-type: none"> • Discussions and Negotiation
PB4	<ul style="list-style-type: none"> • Discrepancies due to several agreements 	<ul style="list-style-type: none"> • Negotiation
Inadequacy of contract provision		
PB4	<p>There were no provision to terminate the private party in case of any worse scenario and also unless both party sign, bank will not release the money.</p> <p>Dispute resolution method was not mentioned in the contract</p>	<ul style="list-style-type: none"> • Provision for method of taking money out of the Escrow account in case of any termination should be incorporated in the contract • Appointing adjudicator from the beginning • Incorporate strong dispute resolution mechanism • Increase the quality of contract drafting
PR1	<p>There is no provision in the contract regards to release of retention money. Private party ask that retention providing the bond, as per NPA guideline we can get all the retention with providing the bond</p>	<ul style="list-style-type: none"> • Negotiating as per NPA guideline • Mutual agreement • Increase the quality of contract drafting • Appointing the expert or well-known person while drafting the agreement • Improve adequate skills on PPP arrangement
Poor documentation		
QR1	<p>Launch of project without proper documentation, due to;</p> <ul style="list-style-type: none"> • Improper negotiation • Improper feasibility studies 	<ul style="list-style-type: none"> • Proper negotiation at early stage • Proper validation before implementation • Increase the quality of contract drafting • Appoint experts to prepare the PPP document

	• Politically beneficial project	
• Non-performances of contractual obligations		
PB4 & early warning notices	Private party not attending to the defect rectification work and signing of deeds	<ul style="list-style-type: none"> • Discussions, Negotiation • Early warning and notices explaining with the contractual portion • Early warning to attempt to rectification work • Post project review • Extending the defect liability period • Finally contractual and legal actions
	Private party fail to pay back the foregone interest amount to public party	
	Private party failed to provide the proof documents on refund charges	
PR4	Private party failed to take environmental approval which the obligation to be fulfilled by the private party	<ul style="list-style-type: none"> • Discussion, Negotiation • Changed the design to suit the environmental • Early attempt to take preliminary environmental approval • Obtain expert's advice
PR3& QR1	Public party failed to attempt to the break water maintenance work which is the obligation of the public party	<ul style="list-style-type: none"> • In-house meetings, Discussions, Negotiations • Appointed few of expertise to giving their impartial opinions • Having impartial independent party who will be advising to the both parties in the PPP
LO1	Payment conditions were breached by the public party	<ul style="list-style-type: none"> • Incorporating strong conditions and strong dispute resolution method in the contract
• Payment issues		
PR1	Public party having issues to approve the payment certificates	<ul style="list-style-type: none"> • Discussions, Negotiation • Post project review
	Issues in releasing of retention money by the public party since there were no provision in the contract to release retention money	
PB4 & early warning notices	Private party fail to pay back the foregone interest amount to public party	<ul style="list-style-type: none"> • Discussions, Negotiation • Early warning and notices explaining with the contractual portion • Post project review
	Computation of final bill amount is pending from the public party until settlement of foregone Escrow interest and providing proof document on refund charges	
PR2	Releasing of insurance bonds, and retention money. Because there was minor cracks were developed in the CICT building.	<ul style="list-style-type: none"> • Negotiated and settled • Mutual understanding • Good relationships
	In Hambantota project, private party has purchased ongoing company, so certain income public party has collected. After the contract period, it was actually red in advance, but they have collected the income. So they have to pay us. So there was a disputes	<ul style="list-style-type: none"> • Negotiated and settled • Mutual understanding • Good relationships • Early stage before making the payment, could have deducted from the final payment
LO1	Delayed in payment by the public party, and payment claim which was refused	<ul style="list-style-type: none"> • Negotiation • Dispute resolution clauses
• Misinterpretation of the contract terms		
LO1	There was termination clause but there was not suspension clause. Somebody has misinterpreted the information to government and suspension was took place	<ul style="list-style-type: none"> • Made representations and tried file action and get court orders compiling name to maintain status. So those are interim orders • We could have increase the state guarantee, irrespective of political change
• Lack of clear line of responsibilities		
PB2	SLPA not bound with their guideline, roles and responsibilities and no proper risk allocation or no due diligence by the public	<ul style="list-style-type: none"> • Clarity on roles and responsibilities • Appropriate risk allocation • Quick response to the notices • Clear goals and mutual benefit objectives. • Training and education in the behavioural attitudes.

Appendix A (4): Construction related disputes

Respondent	Related issues / causes	Mitigation strategies which respondents have taken
Unavailability of resources		
PR3 & PB3	<ul style="list-style-type: none"> The GOSL agreed to provide the entire utility facilities to the project, however abandoned later on due to lack of funds, and agreed to provide the facilities up to the boundary of the project 	<ul style="list-style-type: none"> Negotiation and discussion,
	<ul style="list-style-type: none"> Responsibility of break water maintenance has given to GOSL as per the PPP agreement. However, GOSL was reluctant to perform due to lack of fund and the facilities 	<ul style="list-style-type: none"> Negotiation and discussion,
PB4 & progress presentation	<ul style="list-style-type: none"> Dispute occurred in housing project due to unavailability of funds from private party. Other resources also have been affected, finally project delayed and 	<ul style="list-style-type: none"> Negotiation and discussion, Public party taken over the project and made direct payment to the private party for the cost incurred at site while private party did only monitoring work.
PB1	<ul style="list-style-type: none"> Grantee granite not reached on time. Private party had to wait long time and operation of port also affected. Thus, Private party entitled to get huge amount of liquidated damages. However employer got nothing. 	<ul style="list-style-type: none"> Negotiation and discussion, Increase the quality of the contract drafting Suitable condition should be included related to sharing method of the extra profit
LO1	<ul style="list-style-type: none"> Public party should ensure that the resources are well calculated, contemplated within the contract. 	<ul style="list-style-type: none"> Negotiation and discussion, Proper feasibility study has to be done.
QR2 & PB4	<ul style="list-style-type: none"> Lack of staff allocated for the design review and supervision in the construction stage. Due to very less tasks defined. 	<ul style="list-style-type: none"> Negotiation and discussion, Parties close cooperation and effective relationship management
Construction delay		
PR2	<ul style="list-style-type: none"> Due to government change 	<ul style="list-style-type: none"> Compensated
PB5	<ul style="list-style-type: none"> Due to unforeseen site condition 	<ul style="list-style-type: none"> Negotiated and settled As a compensation additional floor allowed to reimburse the cost
PR4	<ul style="list-style-type: none"> Environmental clearances not obtain on time 	<ul style="list-style-type: none"> Negotiated. But project abandoned or distress
	<ul style="list-style-type: none"> Delay in land acquisition 	<ul style="list-style-type: none"> Compensated
PB4	<ul style="list-style-type: none"> Lack of fund from private party 	<ul style="list-style-type: none"> NHDA took over the responsibility of direct payment to private party
Quality issues of the services		
PB3, PR3 and QR2	<p>Unsatisfied or less quality of the services by private party</p>	<ul style="list-style-type: none"> Negotiation and discussion, Hired expertise to get the advice regard to technical, Appointed technical team with the contract, Hired independent partner Early warning mechanism, Post project review
Unforeseen site conditions		
PR1	<p>There were discrepancies in soil investigation report given by the public party. Hence, design was changed as per physical condition during the construction</p> <p>It is due to;</p> <p>Improper risk assessment by private party</p> <p>Unavailability of information during the early stage</p>	<ul style="list-style-type: none"> Negotiation and discussion, Mutually agreed to change the design Risk taken by private party and settled
PB5	<p>Encountered large scale of services in the site.</p> <p>Root cause;</p> <p>Improper risk assessment by private party</p>	<ul style="list-style-type: none"> Negotiated Public party compensated to private party by giving additional floor to construct and

	Unavailability of soil report and as-built drawing	reimburse the cost incurred
Financial failure of the Private party		
PB4	Private party who faced lots of liquidated problems during the construction stage and they could not proceed with the projects	This issue was settle by public party by paying the private party by direct payment for material, labour, staff, petti-cash by monitoring the projects.

Appendix A (5): Political related disputes

Respo ndent	Related issues	Mitigation strategies which respondents have taken
Delay in regulatory approval		
PB3 PB5	Delay in regulatory approval influence in project duration due to; <ul style="list-style-type: none"> • Mandatory delay or Ignorance delay • Private party is not familiar with the Sri Lankan regulatory system, two different practices in both countries. 	<ul style="list-style-type: none"> • In-house meetings, discussion, Negotiations, • Therefore, government has to have some assistant (steering team) to get the regulatory approvals for the PPP type of project.
QR1	<ul style="list-style-type: none"> • Present regulatory system not changing with this PPP system. • There is a PPP unit which have no link or coordination between the government's authorities. 	<ul style="list-style-type: none"> • Develop the legal framework for the land reclamation type of project before start • Proper knowledge on PPPs
PB4	<ul style="list-style-type: none"> • Delays in regulatory approvals due to slow process 	<ul style="list-style-type: none"> • Appoint the steering committee
Changes in government		
PB3	<ul style="list-style-type: none"> • Political uncertainty or frequent changes of government since the Sri Lanka has politically profitable projects • Project suspended over two years after changes of government • Changes in ministries, thereby each and every rules and regulations also changing. Again the project proponents had to follow new system. • No coordination between the public agencies 	Negotiation Permanent entity which should not change with the government and it should be there for the PPP types of project. Government should have the policy that incur any sort of government came still this development has to be gone through. Therefore, there should be a national policy, education, PPP framework
PB3	<ul style="list-style-type: none"> • Former government have decided to give 20ha freehold land to the private party. New government changed the law and converted the freehold land to lease land. Because foreigners cannot own the land in Sri Lanka • Environmental regulatory violations by the private party found by the government 	Negotiated and compensated for the delay occurred by the government
PR3	The former government was having the vision to develop a second capital in the country. So, they have been invest. Due to the changes government. Projects failed, or abandoned	There should be a policy that incur any sort of government came still this development has to be gone through. National policy should be introduced
PR2	In Hambantota port projects, private party had some delays in handing over certain documents due to the delay in final authority by president, where there were two government at that time.	Negotiated and settled
PB4	Changes in the government resulted delaying the tender process of new projects. GOSL told that to re-visit the concept. Government takes time to re-visit	Government decision
PB5	The government had to pay compensation for the private party, because long delay from the government	Compensated for the idling charges
QR1	After government changed, policy was changed and all the Operation taken over by the government (Navy). Due to the practical problem, any country didnt allow to any Navy of other country to operate in their soils. So business collapsed drastically	Government decision Government should have the policy.

Changes in policies		
PB2 LO1	<ul style="list-style-type: none"> Changes in political economy or political background, then there is a change in the policy, when the policy change, public sector partner tries to go out or tried to not to obliging the obligations under the PPP contract 	<ul style="list-style-type: none"> Increase the state guarantees as per it's govern under the constitutions Increase the state guarantees with private sector partner in the contract when drafting. Firm national policies should be introduced to PPP projects specifically
QR1 PR3	<ul style="list-style-type: none"> Huge delay and paused the construction by two years due to heavily influenced politicians 	<ul style="list-style-type: none"> Strong national policy, education, PPP framework and centralized system for the PPP projects should be implemented.
Breach by government		
LO1	Delayed payment, payment refused by the government for the work done, with the new government refusing to continue performance, suspension of the project done by the government,	<ul style="list-style-type: none"> Strong dispute resolution clauses or strong conditions have to be incorporated with the contract Strong PPP framework

Appendix A (6): Legal related disputes

Respondent	Related issues	Mitigation strategies which respondents have taken
Changes in Law		
PB2 PB3 PR2	Changes in law by public party due to following; <ul style="list-style-type: none"> Restriction on transfer of ownership rights to private party (Project delayed due to unavailability of legal background) 	<ul style="list-style-type: none"> Long term leasing In-house meetings, discussion, Negotiations,
PB2	No procedure to acquire the reclaimed land; <ul style="list-style-type: none"> Lack of legal background or procedure to acquire the reclaimed land 	<ul style="list-style-type: none"> Develop the legal framework for the land reclamation type of project before start Comprehensive feasibility studies to be completed before start the project
PR2	Amendment to statutory Act (SLPA Act 1979) by public party, due to; <ul style="list-style-type: none"> Outdated Acts due to changes of globally, Socially, commercially, environmentally, 	<ul style="list-style-type: none"> Develop the strong legal and regulatory framework for PPP projects Negotiated and mutually agreed for changes of Act with public agencies Country needs update of necessary Law for PPP projects
PB3	Administrative system and rules and regulations for the people in smart city is not yet finalized. <ul style="list-style-type: none"> Due to lack of knowledge 	<ul style="list-style-type: none"> Develop the strong legal and regulatory framework for PPP projects Improve the knowledge in PPP system
PB2	Changes in Act from Strategic development Act to Inland Revenue Act, Projects got stuck due to no concession provided for investors	<ul style="list-style-type: none"> Develop the strong and attractive investment framework to PPP project
Lack of respect for law		
PB3	Private party was instructed to stop the work for independence day in order to respect the country, where private party had disagreement on it and claimed for idling cost <ul style="list-style-type: none"> Lack of partnership approach No conditions in the contract 	<ul style="list-style-type: none"> Negotiated and settled To be included in the contract document PPP guideline to be prepared for this kind of minor conditions. Everything cannot put in the main agreement
Other legal issues		
LO1	Every issues in PPPs are legal related; <ul style="list-style-type: none"> Issues on legal mandate of public party Breach of contract Misinterpretation of the contract Third party filed actions 	<ul style="list-style-type: none"> In-house meetings, discussion, Negotiations, Proper prior representation to government

Appendix A (7): Environmental related disputes

Respondent	Related issues	Mitigation strategies which respondents have taken
Environmental conflicts		
PB4	Environmental conflicts due to environmental regulatory violation by Private party	<ul style="list-style-type: none"> • Social impact assessment, • Supplementary environmental impact assessment • Negotiation with fisherman, boat owners, political party, general people • Proper awareness programme and compromise • Transparency should be encouraged • Proper communication with general public
	Lack of permits obtained for sand mining by the private party (Private party did not obtain coast conservation department approval and CEA clearance, however project started with initial principle approval)	
Unpredictable level of pollution		
LO1 & PB3	Unpredictable level of pollution due to quarry production, blasting, mining, vibration, dust noise pollution,	<ul style="list-style-type: none"> • Proper social impact assessment • Public awareness programme • Strong anti-pollution clause in the contract
Public opposition of the project		
PB2, PB3, PR3, PR4, LO1	Affect the livelihoods, species severe damages to environment	<ul style="list-style-type: none"> • Proper social impact assessment • Public awareness programme • Proper communication with general public

Appendix A (8): Market and revenue related disputes

Respondent	Related issues / causes	Mitigation strategies which respondents have taken
Unfavourable market conditions		
PB4	Unfavourable market conditions due to: private party faced difficult to sell the houses and selling the houses were not feasible, due to the selected location for the housing, which is not attractive,	<ul style="list-style-type: none"> • Negotiation • Re-negotiate the concession agreement • Incorporating contingencies or provision (increase the concession)
PB3 & QR1	sand metal will create unnecessary demand for the local construction industry beyond the economic and social benefits With the creation of this project, the economic activities can be diverted into new area resulting socio economic issues. Therefore, small scale vendors also can be affected.	<ul style="list-style-type: none"> • Proper risk assessment • Proper market analysis
Variable in forecasted equity's return or extra profit		
PB1	In Asia power cooperation project, GOSL had to pay 38 rupees to buy one unit of energy whereas they were selling it 70 rupees.	<ul style="list-style-type: none"> • Negotiation • Re-negotiate the concession agreement • Incorporating contingencies or provision (increase the concession)

Appendix A (9): Economic related disputes

Respondent	Related issues / causes	Mitigation strategies which respondents have taken
Changes in tax		
PR2	Public party wanted to collect the economic service charge, which is entitled to the private party.	<ul style="list-style-type: none"> • Negotiated & settled • Re-negotiate the concession agreement • Incorporating contingencies or provision

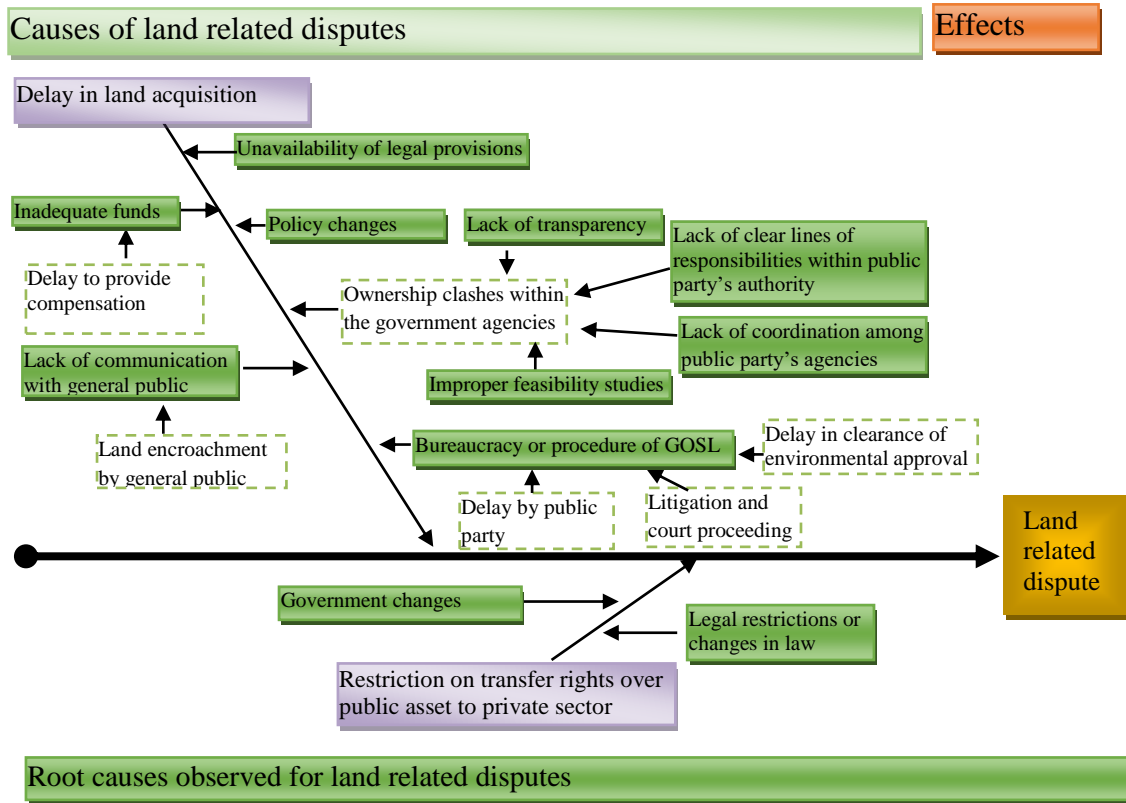
Changes in foreign exchange rate		
LO1	There were disputes with regard to price escalation and changes in foreign exchange rate.	To fix the foreign exchange rate during the period simply to overcome the hardship following are the mitigation strategies. <ul style="list-style-type: none"> • Re-negotiate the concession agreement • Increase the concessions • Incorporating contingencies or provision (increase the concession)
Others	There will be less chance of having disputes if the contingencies are included in the contract. Mostly, legally provisions are there for all economic related issues.	<ul style="list-style-type: none"> • Incorporating contingencies or provision to absorb the changes on economic. • Provisions and obligations have to be incorporated in the agreement • Have to have good strategy to handle good dispute resolution clauses.

Appendix A(10) : Human behavior related disputes

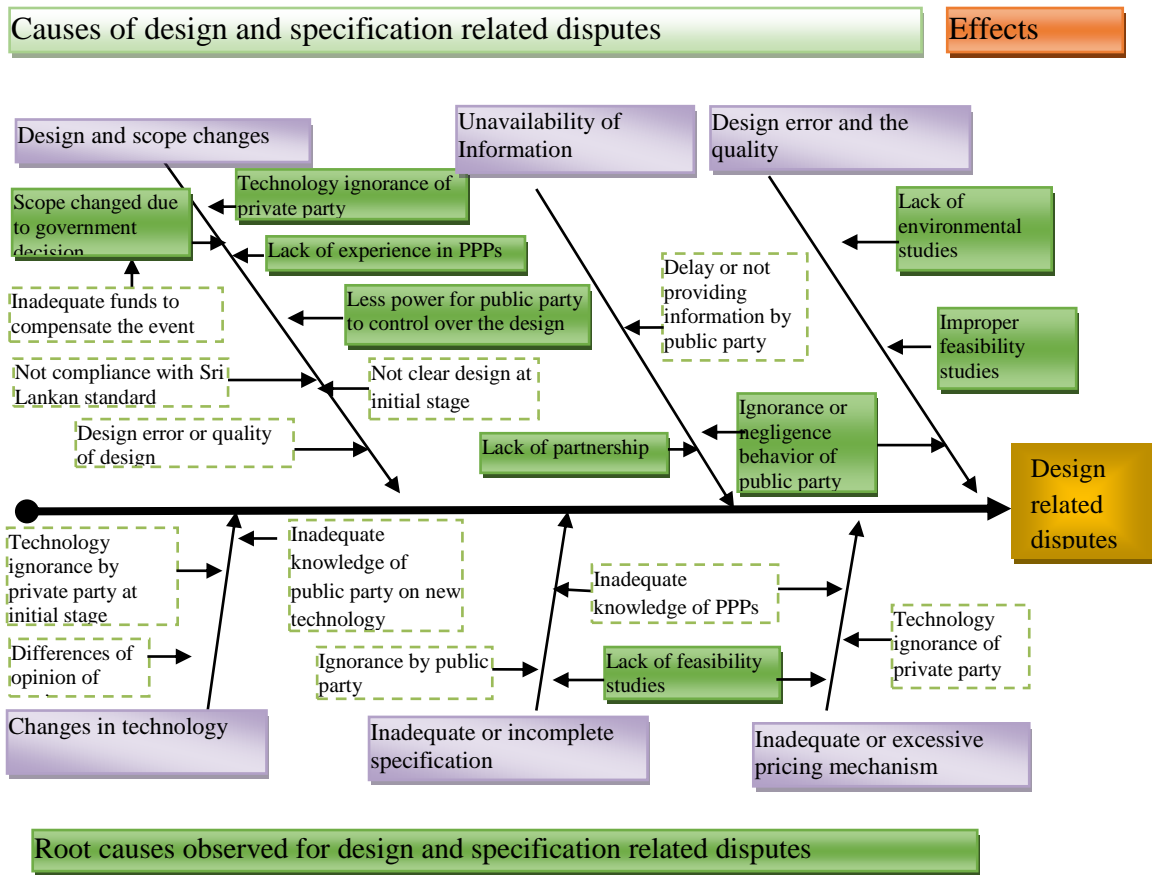
Respondent	Related issues	Mitigation strategies which respondents have taken
Inadequate experience in PPPs project to the parties (especially for public party)		
All	<ul style="list-style-type: none"> • Inadequate experience in PPPs project to the parties (especially for public party) 	<ul style="list-style-type: none"> • Improve the adequate knowledge on PPP approach necessary by having proper training, series of workshops, seminars, study sessions and practical experiences in the PPPs project • Appoint expert or obtain expert advice when drafting the document and during disputes PPPs in the project
Poor communication between public and private party, as well as, public partner and general public		
PB4 PB5 PR1 PR2 PR4 QR1 QR2	<ul style="list-style-type: none"> • Poor communication between public and private party, as well as, public partner and general public 	<ul style="list-style-type: none"> • Discussions, Negotiations. • Education on well-defined communication system • Good training and educating the communication skills and their behaviour. • Education on the PPPs arrangement
Lack of coordination between public party's agencies		
PB3 PB4 PB5 PR4 QR1	<ul style="list-style-type: none"> • Lack of coordination between public party's agencies 	<ul style="list-style-type: none"> • Improve lines of responsibilities within the public agencies • Improve the transparency • Improve the PPP unit to coordinate all the agencies • Education on clear goals & mutual benefit objectives • Good training and educating the communication skills and their behaviour.
Adversarial culture in between public party's agencies		
PB3 PR4 LO1 QR1 QR2	<ul style="list-style-type: none"> • Adversarial culture in between public party's agencies 	<ul style="list-style-type: none"> • Improve adequate knowledge on PPP arrangement • Training and education in the behavioural attitudes • Education on well-defined communication system
Private party's general practice or cultural differences between public and private parties		
PB3 PR4 LO1 QR1 QR2	<ul style="list-style-type: none"> • Private party's general practice or cultural differences between public and private parties 	<ul style="list-style-type: none"> • Bringing an engineer who is mutually acceptable and who knows both industry, both cultures and traditions' and to be included in the contract
Lack of parties commitments or team spirit between public and private parties		
PB3 LO1	<ul style="list-style-type: none"> • Lack of partnership practice between public and private parties 	<ul style="list-style-type: none"> • Improve parties close cooperation & effective relationship management

Appendix B: Causes and Effect Diagram of PPP disputes

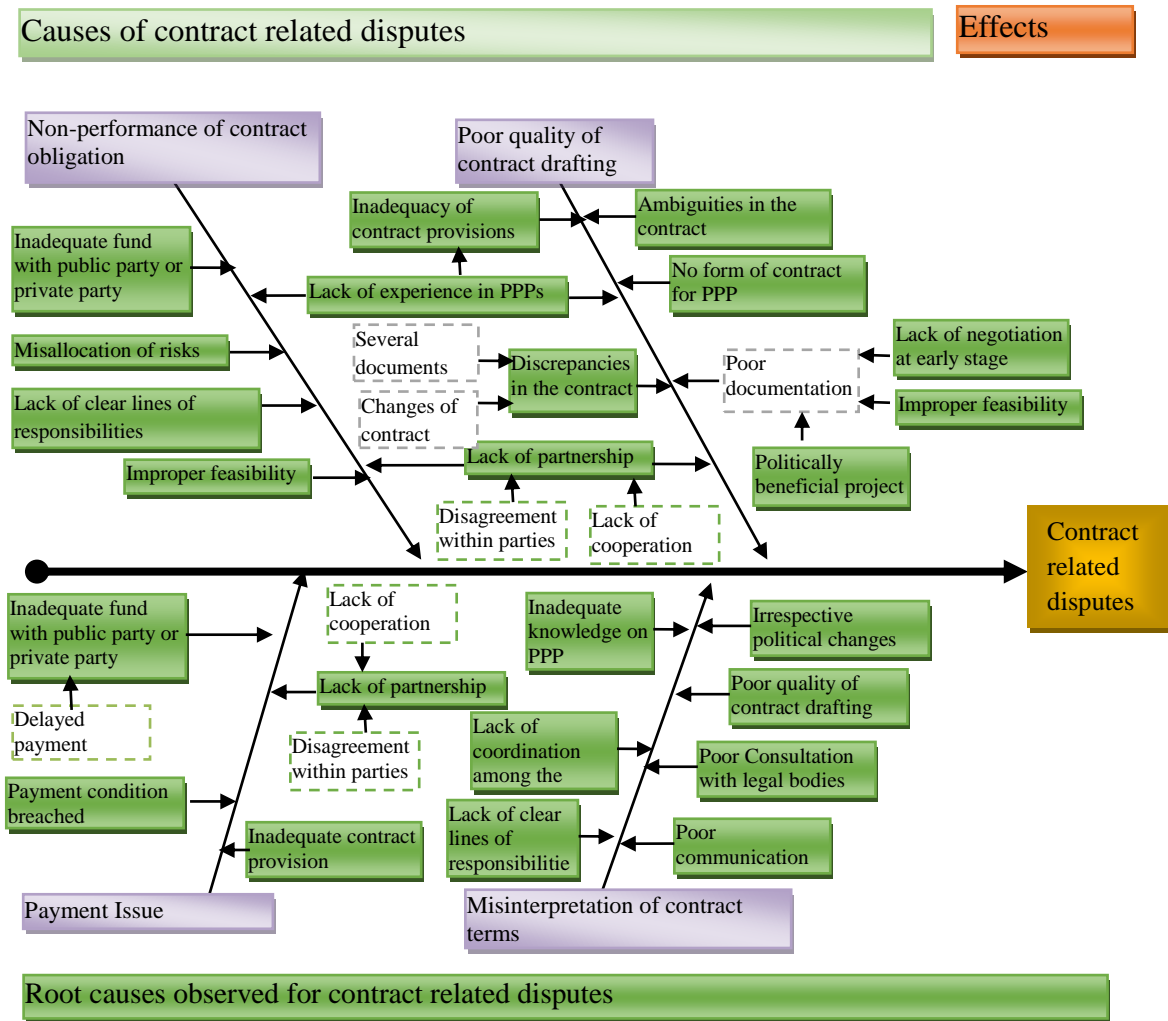
B (1). Causes and effect diagram for land related disputes and observed root causes



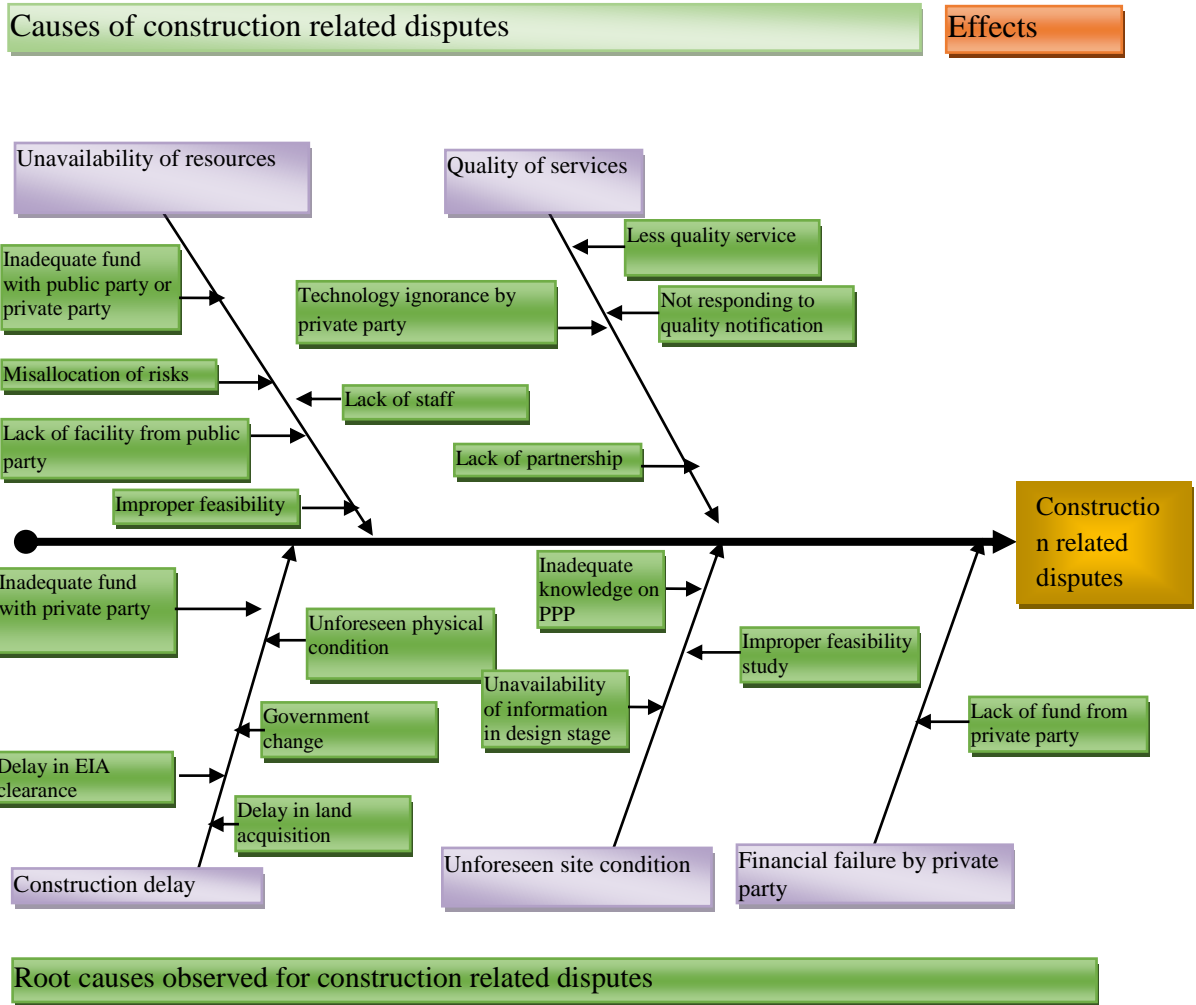
B (2). Causes and effect diagram for design or specification related disputes and root causes observed



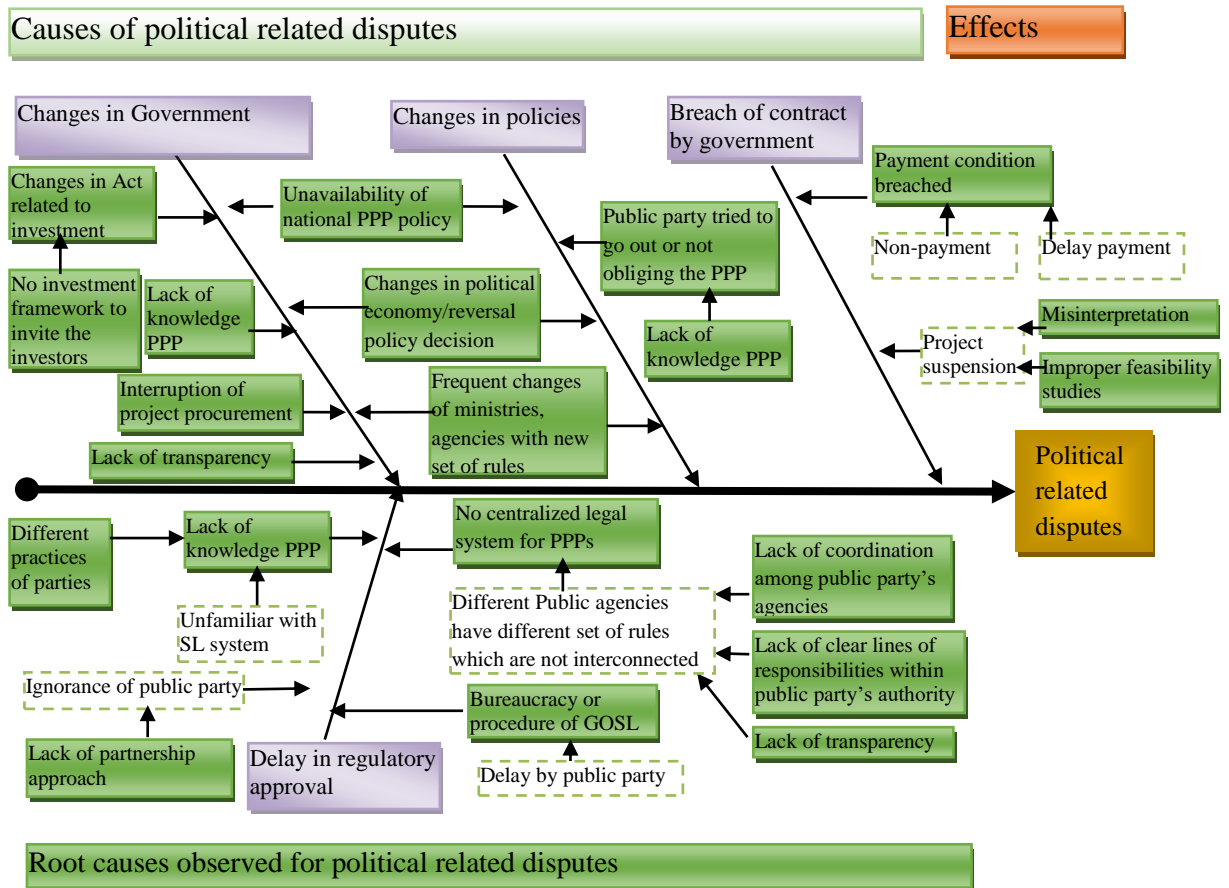
B (3). Causes and effect diagram for contract related disputes and root causes observed



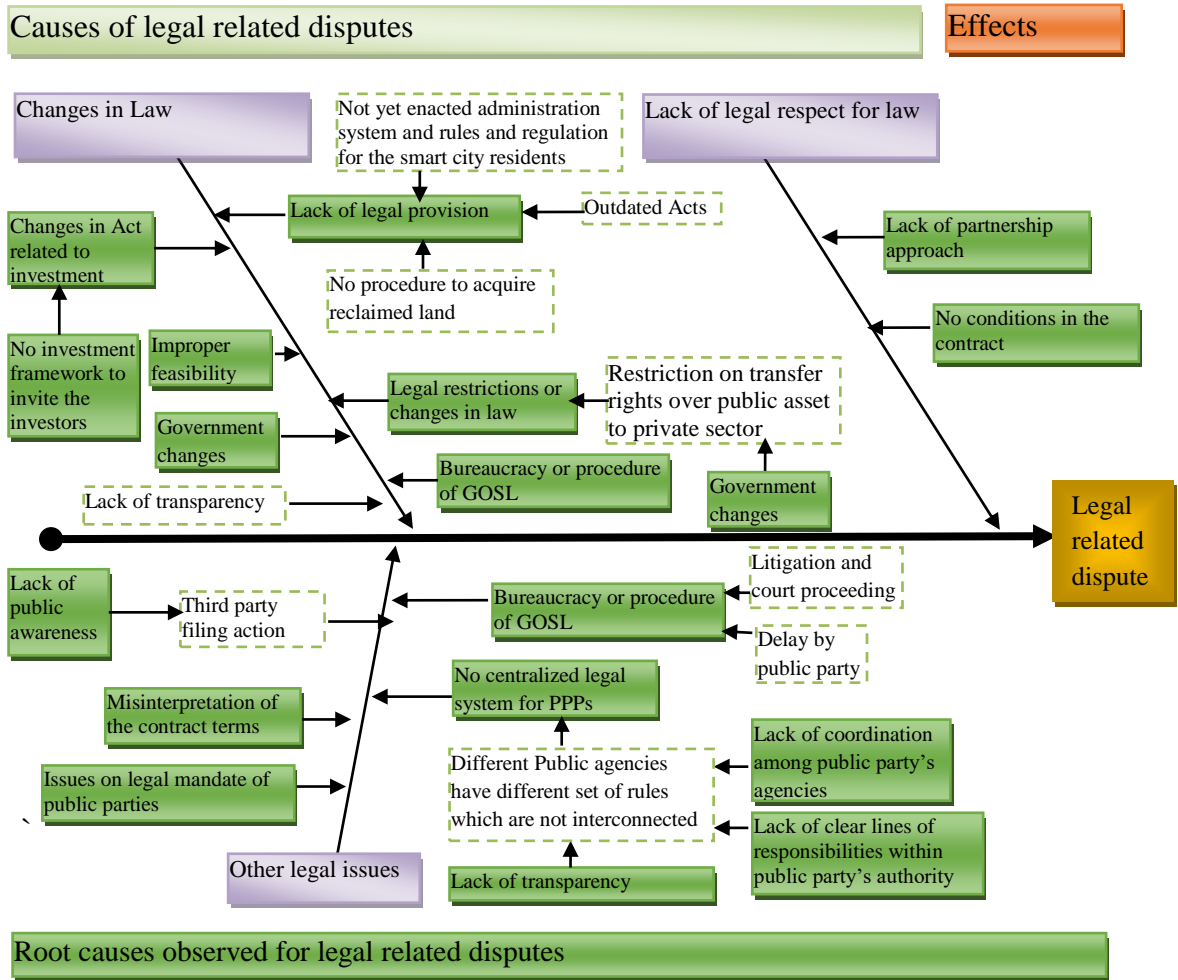
B (4). Causes and effect diagram for construction related disputes and root causes observed



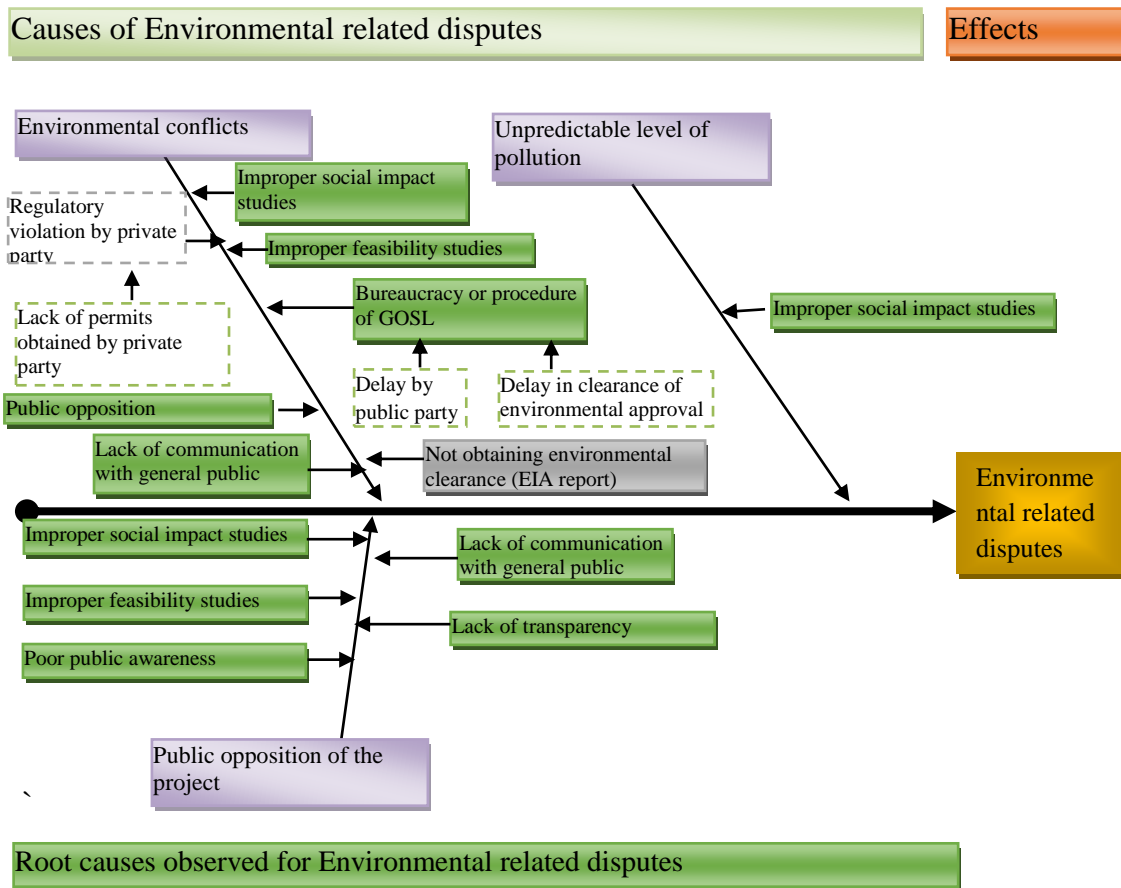
B (5). Causes and effect diagram for political related disputes and root causes observed



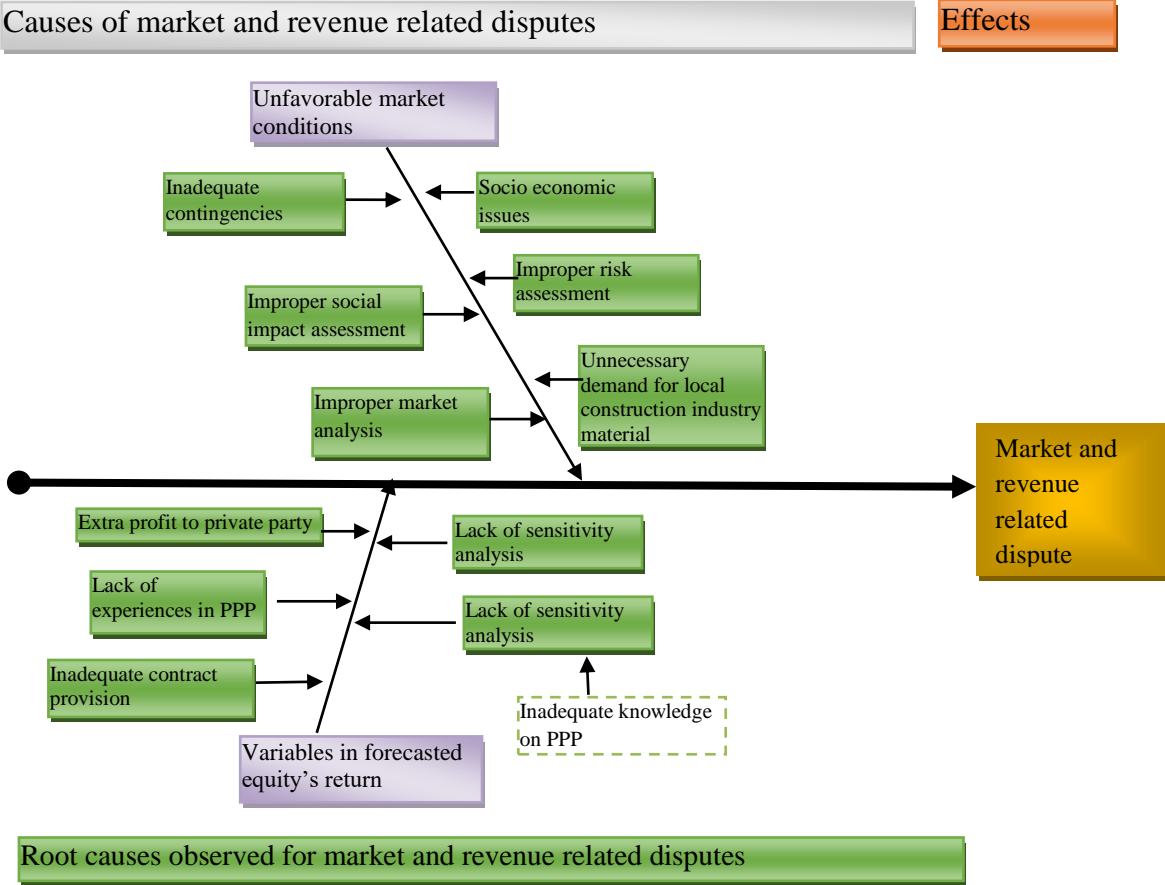
B (6). Causes and effect diagram for legal related disputes and root causes observed



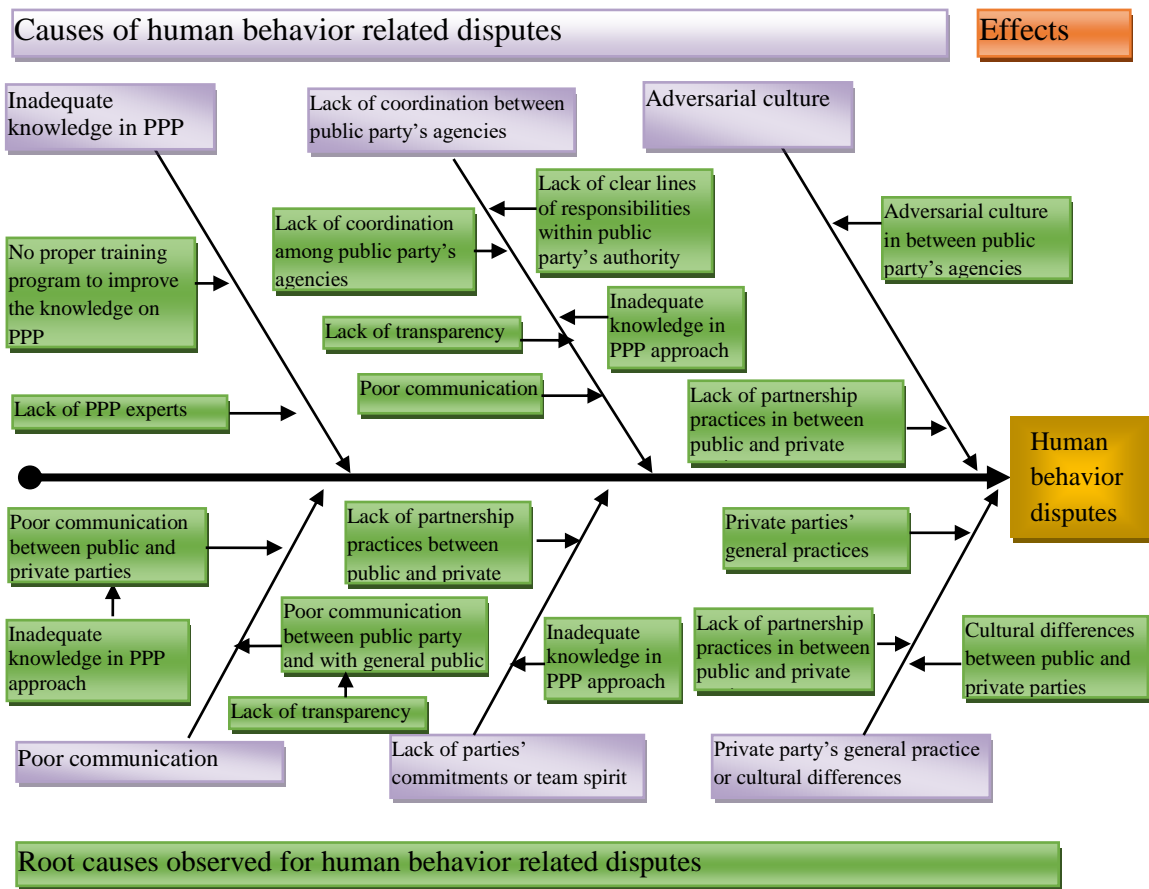
B (7). Causes and effect diagram for environmental related disputes and root causes observed



B (8). Causes and effect diagram for market and revenue related disputes and root causes observed



B (9). Causes and effect diagram for Human behaviour related disputes and root causes observed



Appendix C: Expert Interview Guideline

Mitigating disputes in Public-Private Partnerships: A study on infrastructure projects in Sri Lanka

SECTION I: BACKGROUND INFORMATION OF INTERVIEWEE

Name:
Designation:
Organization:
Nature of Organization:
Years of Experience:
Date:

SECTION II: IDENTIFICATION OF PPP PROJECTS IN SRI LANKA

1. Have you taken part in any PPP infrastructure projects in Sri Lanka?
2. If yes, Can you name the few of PPP projects that you involved?
3. How long you worked for PPPs projects in Sri Lanka?
4. Can you briefly explain your roles in the above mentioned PPP projects?
5. Can you briefly describe about the projects those you mentioned above?
Project type, Start date and completion date, Current stage of the project
6. What is the nature and contractual arrangements of above mentioned projects?
 - Parties involved and their nature
 - Funding arrangements
 - Form of PPP project
 - Procurement arrangement
 - Any other like, special features, etc

SECTION III: NATURE AND CHARACTERISTICS OF PPP FOR DISPUTES

7. **NATURE OF PPP** arrangement
 - a) Were there any disputes due to PPP nature and its arrangement? If yes, why?
 - b) Specify the disputes which occurred due to PPP nature and its arrangement?
 - c) Do you think, any of the following characteristics are the reason for the disputes which you mentioned above? If yes, describe?

Characteristics	Yes/No	If yes, Describe
Involvement of two (or more) parties		
Each participant tried to be a principal		
Long-term nature of PPP project		
Complex contractual arrangement of PPP project		
Resourcing: Contributes of each participants		
Complex nature of sharing responsibilities and risks		

- a) What are the other characteristics of PPPs, which can lead to disputes or conflicts?
- b) What are the potential of PPPs, which can lead to mitigate the disputes, when it compare to conventional procurement?

SECTION IV: IDENTIFY THE DISPUTES IN PPP INFRASTRUCTURE PROJECTS IN SRI LANKA

SECTION V: INVESTIGATION OF DISPUTE IN PPP INFRASTRUCTURE PROJECTS IN SRI LANKA

SECTION VI: STRATEGIES TO MITIGATE DISPUTE IN PPP INFRASTRUCTURE PROJECTS IN SRI LANKA

Following questions are based on the identified disputes categories as follows (Refer annex, if necessary).

- (a) Land related
- (b) Design or Specification related
- (c) Contract related
- (d) Construction/Contractor related
- (e) Political related
- (f) Legal related
- (g) Economic related
- (h) Market and Revenue related
- (i) Operation and Management
- (j) Asset ownership and transfer
- (k) Human behavior related
- (l) External Factors

8. Have you experienced any (a), (b), (c) disputes?
9. If yes, list out the related issues, root causes behind of each and describe how this occurred?
10. Can you explain who the Contributors for this dispute are?
11. Did you use any strategies to avoid/mitigate the above mentioned disputes?
12. If yes, what are the strategies that you have taken to mitigate these disputes? Why?
13. What are the strategies that you could have been taken to mitigate these disputes? Why? Why couldn't you use these strategies in your project before?
14. What are the best strategies you can suggest to mitigate the disputes for the future PPP projects?

Dispute Category (Q.12)	Related issue / Causes (Q.13a)	tick	Describe (How it occurred / root cause) (Q.13b)	Contributor to the issue (Q.14)	What strategy you have taken to mitigate the dispute & Why? (Q.15 & Q.16)	What you could have been taken to mitigate the dispute & Why? (Q.17a)	Why couldn't you use this strategy (identified in Q.17a) before?(Q.17b)
		√ / X					
Land related	Delay in land acquisition						
	Delay in providing required land compensation						
	Inadequacy of compensation of land						
	Restrictions on transfer of rights over public assets to private sector						
	Land rent adjustment due to economic change						
Design or Specification related	Design and scope changes						
	Design error or Quality of design						
	Inadequate / incomplete specification						
	Unavailability of information						
	Innovative design or Changes in Technology						
	Inadequate or excessive Pricing mechanisms						
Contract related	Ambiguities in contract documents						
	Misinterpretation of contract terms						
	Unfair risk allocation						
	Inadequate Insurance and guarantee bond						
	Contract termination						
	Disagreement over responsibilities						
	Lack of clear lines of responsibility						
	Non-performance of a contractual obligation						
	Payment issue						
	Repetitive Amendments						
Construction related	Construction delay/Time overrun / Time extension						
	Cost overrun						
	Non-completion						
	Poor performance						
	Design and latent defects or Quality of service						
	Financial failure of the contractor						
	Unavailability of resources						
	Technical inadequacy of the private party						
	Unforeseen site condition						
Political Related	Inconsistencies in government policies						
	Delayed in regulatory approvals						
	Expropriation or Compulsory acquisition of project assets						
	Unlawful revocation or Breach of contract by government						

	Changes in government						
	Interruption of the procurement process						
Legal related	Changes in law or inconsistencies in legislation						
	Corruption and lack of respect for law						
	Industrial regulatory change						
	Import and export restrictions						
Economic related	Changes in interest rates and foreign exchange rates						
	Changes in tax						
	Changes in debt Financing terms						
Market and Revenue related	Unfavorable market conditions						
	Exceeded design capacity						
	Revenue adjustment						
	Uncertainty of tariff setting						
	Fluctuation of material cost						
	Variable in forecasted equity's return / Extra profit						
operation and management	Changes in operating requirements or operation scope and quality						
	User dissatisfaction						
	Inadequate safety in operation						
	Operations cost overrun						
	Delays or interruption in operation						
	Failure of related infrastructure and unexpected maintenance						
ownership /transfer	Concerns of local residents' rights and interests						
	Noncompliance with scope of transfer component						
	Payment of final installment issues						
Human behavior related	Poor communication						
	Adversarial culture / cultural differences between main stakeholders						
	Lack of commitments or team spirit						
	Lack of domestic skills or inadequate experience in PPP projects						
	Lack of coordination between different authorities						
	Bad anticipation by parties						
Environmental	Unpredictable level of pollution						
	Force Majeure						
	Public opposition of project						
	Conflicts in environmental clearances						

Appendix D: Transcript of Expert Interview

Mitigating disputes in Public-Private Partnerships: A study on infrastructure projects in Sri Lanka

SECTION I: BACKGROUND INFORMATION OF INTERVIEWEE

Name (Optional): PB3

Designation:

Organization (Optional):

Nature of the Organization:

Years of Experience: 20 years of Experience

SECTION II: IDENTIFICATION OF PPP PROJECTS IN SRI LANKA

1. Have you taken part in any PPP infrastructure projects in Sri Lanka? If yes, Can you name the few of PPP projects that you involved?
Yes. Land reclamation and infrastructure projects
2. How many years of experience you have in PPP projects in Sri Lanka? 3 years
3. Can you briefly explain your roles in the above mentioned PPP projects?
Acting as project director for reclamation, coordination on behalf of ministries, administration, investigation
4. Can you briefly describe about the projects those you mentioned above? What is the nature and contractual arrangements of above mentioned projects?

Actually this projects started 2015, some delay and again started 2016 and it is going over 2041. Currently, reclamation phase is completed and infrastructure is initiated. Parties involved in this projects are, earlier ministry Mega police and western development, now Ministry of Urban development, water supply & Housing facilities as a public party and private party is China Harbour and Engineering Corporation (CHEC) who is directly responsible for this project. CHEC has authority and flexible to select any sub-contractors.

Funding arranged by CHEC, and as a government giving only the lands, in this case, actually it was a sea, CHEC had to reclaim and form the city and develop. Other obligation for the government is to provide the sand, it is also again not the sand, but site for the sand extraction. So CHEC has to do all related work to extract the sand. Government has to provide the utility services up to the boundary including water, electricity etc. Within the boundary CHEC is the responsible, they have to develop the internal system. This project is containing the modern facility system, smart city concept, green city concept, etc,

Government will own the land, and lease it to developer for 99 years to earn their expenditures, after 99 years, it will transfer to government, until that CHEC will take part in the city. But all the land is for GOSL, we are renting out for CHEC. No leasing amount will be paid since they spend the money to develop.

They have to follow the Sri Lankan rules and regulations, however, they also have to follow the rules as per the place, such as residential, entertainment, commercial area, educational area and also, building heights should be maintain as Sri Lankan rules and regulations, and also Only 40% of the area, they can construct, other 60% have to remain for the environmental purposes, because we have very established development control regulations.

SECTION III: NATURE AND CHARACTERISTICS OF PPP FOR DISPUTES

5. NATURE OF PPP arrangement

- d) Were there any disputes due to PPP nature and its arrangement? If yes, why? Specify the disputes which occurred due to PPP nature and its arrangement?

EPC or “measure and pay” system, already methods are specified or fixed. But in PPPs system have flexibility, but it can’t be achieved with the present regulatory system since the regulatory authority not changing with this PPPs system. Now, there is a PPP unit in Sri Lanka, but there is no link or coordination between the government’s authorities. Eg. Water board, CEB, RDA having their own act.

There were conflicts in Sri Lankan working periods or time, such as we have lots of holidays, Saturday, Sunday etc. We initially asked them to familiar with the Sri Lankan system.

- e) Do you think, any of the following characteristics are the reason for the disputes which you mentioned above? If yes, describe?

Characteristics	Y/ N	If yes, Describe
Involvement of two (or more) parties	yes	Both parties having different ideas, so automatically the conflicts arise
Each participant tried to be a principal	Yes	In Asian system, there are hierarchy system. Due to that, their authority, rules and regulations.

Long-term nature of PPP project	No	The system have to be changed. If there is a well-established system, then no need to concern on long-term or short term. Most of the time we are not having proper formalities, regulations, condition.
Complex contractual arrangement of PPP project	No	It is not actually complex, but there is no proper system. Because nowadays we directly apply this PPPs only for the projects. But these regulatory authority, and related parties not much aware about the PPPs requirement.
Resourcing: Contributes of each participants	Yes	Government have to fulfill the some requirements. However, material wise matter can manageable, but intellectual property such as people ideas, knowledge, rules & regulations have to be. There should be proper formats.
Nature of sharing responsibilities and risks	Yes	Public party has to take some risks. As well as the private party have to take some risks. If any party neglect their responsibilities, it will be creating conflicts or disputes. Since the PPPs concept is new to the country, but still this system is improving.

f) What are the other characteristics of PPPs, which can lead to disputes or conflicts?

Government policies and all this can be lead to another conflict now, if the investor wants to get some concession but if it is not available, the government party cannot give any activity to another to lead to conflict. PPPs framework is not much established in Sri Lanka. Because of that also there are disputes. Because most of the PPP projects are coming through ministers or through some political connections. That will lead to a conflict, because they promise something, but officially cannot give then that will lead to conflicts.

g) What are the potential of PPPs, which can lead to mitigate the disputes or conflicts, when it compare to conventional procurement?

Yes. Because, generally PPPs project are complex, there are severe, strong parties involving, and also these PPP projects also have constant contact with the government sector. So, for, because of that, unlike the traditional conventional projects, there might be a way to mitigate this, and also because of the high value, high service and high purpose of the project to the country. Then they always tried to mitigate the disputes when it compare with conventional procurement, we can create the trust with the partnering. And they will share the profit and benefits. So they create to mitigate the dispute

SECTION IV: IDENTIFY THE DISPUTES IN PPP INFRASTRUCTURE PROJECTS IN SRI LANKA
SECTION V: INVESTIGATION OF DISPUTE IN PPP INFRASTRUCTURE PROJECTS IN SRI LANKA

**SECTION VI: STRATEGIES TO MITIGATE DISPUTE IN PPP
INFRASTRUCTURE PROJECTS IN SRI LANKA**

(Refer annex for details. Answers are crabbed into table attached herewith)

Following questions are based on the identified disputes categories as follows (Refer annex for details).

- (m) Land related
- (n) Design or Specification related
- (o) Contract related
- (p) Construction/Contractor related
- (q) Political related
- (r) Legal related
- (s) Economic related
- (t) Market and Revenue related
- (u) Operation and Management
- (v) Asset ownership and transfer
- (w) Human behavior related
- (x) Environmental related

1. Have you experienced any (a), (b), (c) disputes?
2. If yes, list out the related issues, root causes behind of each and describe how this occurred?
3. Can you explain who the Contributors for this dispute are?
4. Did you use any strategies to avoid/mitigate the above mentioned disputes?
5. If yes, what are the strategies that you have taken to mitigate these disputes? Why?
6. What are the strategies that you could have been taken to mitigate these disputes? Why? Why couldn't you use these strategies in your project before?
7. What are the best strategies you can suggest to mitigate the disputes for the future PPP projects?

Public awareness programme, Education on PPP arrangement, Tax concession to the investors.

Each parties should have responsibilities over the natural system and environment, whether it is public party or private party. Also parties should respect the people's rights.

Moreover, Good way is to establish the rules and regulation for the PPPs projects, PPPs framework by considering all the requirements and demand. And we have to resolve all these requirements before the projects start. rivate party thinks that since they are investing, public party has to relax with the entire the rules and regulations, not much thinking about the Sri Lankan context. thing which is very difficult. Sometimes this political authority don't know the about Not much think about the environment, social impact, etc. but when the project is started, then this affect to the project by time, cost, etc.

Dispute Category (Q.12)	Related issue / Causes (Q.13a)	Y / N	Describe (How it occurred) (Q.13b)	Contributor to the issue (Q.14)	What you have done to mitigate it & Why? (Q.15 & Q.16)	What you could have been done & Why? (Q.17a)	Why couldn't you use these before? (Q.17b)
Land related	Delay in land acquisition	√	There is no procedure to acquire the reclaim land. This is the first time in Sri Lanka, this kind of reclamation done. This land is not originally in the ground, this was a sea. Now we build the land, legal department said, we cannot easily take the land. We first have to find who the owner of this land is. Some conflicts occurred whose belongs this land is, whether coastal conservation department, or land ministry, or Colombo municipal council. This was not solved up to now. Therefore delay in land acquisition occurred	Public party	Discussed with attorney generals, Took advise from the experts,	<ul style="list-style-type: none"> • Comprehensive feasibility studies • Develop the proper legal provision before enter into the contract • Improve clear lines of responsibilities • GOSL have to have the master plan to absorb these kind of projects • Public party's responsibility to give clear land to the private party before entering into the tender • Private party's obligations to obtain all the necessary permits regards to land clearances 	There is no proper system to control and manage PPP projects. No experience in PPP
		√	Delay in land acquisition is common due to people are not willing to move.	General public	Had public awareness program	<ul style="list-style-type: none"> • In that case there should be a proper communication with general public. 	Done
		√	Further, we had very big issue with land which is very fresh to add to the main existing land. There is no owner for this land. It is now taking to GOSL. There is several administrative concern when we develop this kind of city. There are 75000 people stay as residents and 250000 temporary. For them administrative system did not established yet. According to attorney general department, if we deploy the people, cannot be collect tax from the smart city people as same as general public of Si Lanka. There is a regulatory	Public party	First we gave the land to the president as the leader of the country. Because attorney general told, if we have permanent residents, these people to be managed by the administrative authority. Earlier this project is belongs to port authority who have no authority to manage this, they have no authority to take taxes from buildings, people, vehicle, etc. there is a certain authority is eligible to do that. Finally this land allocated to UDA, they are the people can decide.	<ul style="list-style-type: none"> • To implement this kind of projects, government had to fulfill all these requirements. GOSL have to have the master plan to absorb these projects. • Due diligence • Proper feasibility studies • Proper PPPs legal and regulatory framework to be implemented 	There is no proper system to control and manage PPP projects. No experience in PPP

			authority to collect the tax, UDA rules have to be followed. So these regulatory system we cannot directly apply for the people who lives in that city. These regulations are not yet finalized. That is the big issue. It will arise as dispute in future. This the responsibility of government.				
	Delay in providing required land compensation	X					
	Inadequacy of compensation of land	X					
	Land rent adjustment due to economic change	X					
	Restrictions on transfer of rights over public assets to private sector	√	Initially government decide to give 20 hectares, because they are getting the loan from Chinese bank, then government has to keep some land as a loan security, that is why the government gave 20 hectares land. but after government change, they decided to not give and they gave 99 years lease. As per the government policy, foreigners cannot buy land, the government not transfer their lands to foreigner, therefore new government told them to strict to the land policy	Public party	Finally developer had to bear the government offer, because government decided to not to give. We didn't have any strategy because that is the government policy This case, there are not any change. Therefore new government told them to strict to the land policy; When we negotiate that, we could not have been given the 20 hectares free grant land. That is the mistake the government did	<ul style="list-style-type: none"> • Long term leasing • Beforehand policies must be discussed, negotiated and agreed. • Comprehensive due diligence studies being done with regard to the applicable regulations, environmental and otherwise, • Regulatory requirements to be provided by the public sector partner in the contract very comprehensively • Develop the strong enabling environment for PPPs 	No clarity in rules and regulation · Government mistake
Design or Specification related	Design and scope changes	√	This PPPs project's methodology is selected by the investor/developer. Then during the implementation stage, public party had less power to challenge. If it is harmful to the government or people, then there is no direct system to control the developer since were ready to implement and their design also completed. However, developer change the	Private party	<ul style="list-style-type: none"> • We discussed with them and did the negotiations for the changes of new materials which are new to Sri Lanka. Those materials we expect to suit to Sri Lanka with fulfillment of desired results. Then the developer show their proof of applications of those materials. • Then we took experts' advice from 	<ul style="list-style-type: none"> • Proper feasibility studies by hiring experts in PPP • Appoint Quality representative to ensure the design quality from early stage • Strengthen the technical team 	We couldn't anticipate d

			material during the implementation stage. When they deployed some new materials or new system, there were conflicts.		relevant universities, institutions, archeological department and we mitigate. <ul style="list-style-type: none"> • Until get all the clearance from public party, developer had to wait, therefore there were conflicts due to the idling cost for the machineries. • Hired independent partner 		
	Design error or Quality of design	√	Some break water, we did not satisfy about their quality of work.	Private party	The Private party gave insurance		
	Inadequate / incomplete specification	X	So many material they are using which is not is Sri Lanka				
	Unavailability of information	√	When the developer change their design and materials, since it is new to Sri Lanka, we had no information to check. We had to believe based on their believe	Private party	We appoint independent expert to advise in case of any conflicts		
	Innovative design / Changes in Technology Design and scope changes	√	For example, storm water, waste water pipes, initially it was designed for HDPE pipes was there in the specification. Then, during the latter part of design stage, they wanted to change it to SRCPE- steel reinforced corrugated polyurethane pipe. The developer has submitted the benefits of using the SRCPE pipe. Since HDPE was originally in the agreement, there were conflicts between public and private party and also with JQR (CECB). This pipe is produced by China, it is nowhere around the world. But as per the agreement, we said that private party has to use the country made product or in case of not availability, party can use British standard	Private party	We did several discussions and meetings. Private party had to prove about the material Since it was the new material to Sri Lanka, we had to gone through several testing and standard to approve. Then we asked guarantee, insurance, Well communication and mutual benefits objectives were there from public party. So adopted the changes and negotiated without getting further worse scenario.	<ul style="list-style-type: none"> • Local staff had no experience with the new technology which used in other countries. Therefore, training to staff on new technology • We could have had the experts with multiple experience. 	
	Inadequate or excessive Pricing mechanisms	X					
Contract related	Ambiguities in contract document	√	If we not defined the contract initially, but there was no firm standard. The private sector partner should follow the standards whether FIDIC whatever. Previously Private party told	Private party	Negotiation, discussion	<ul style="list-style-type: none"> • They could have respect the standard doc • We could have adopted or 	
	discrepancies in contract conditions	√					

			that they don't want any standard document. Then there were disputes. Now they changed. There were so many standard. Mechanism of implementing (construction) this project is defined by the private party. Land reclamation was done under EPC-turnkey contract, road construction by measure and pay. It should be defined in prior, then less disputes			<ul style="list-style-type: none"> defiend the standard earlier • Increase the quality of contract drafting • There should be a standard form for PPP • Appointing the expert 	
	Misinterpretation of contract terms	X					
	Unfair risk allocation	X					
	Inadequate Insurance & guarantee bond	X					
	Contract termination	X					
	Disagreements over responsibilities	X					
	Lack of clear lines of responsibility	X					
	Non-performance of a contractual obligation	X					
	Payment issue	X					
Construction related	Construction delay/time overrun/ Time extension	X					
	Cost overrun	X					
	Non-completion	X					
	Poor performance	X					
	Design and latent defects or Quality of service	√	Unsatisfied or less quality of the services by private party	Private party	<ul style="list-style-type: none"> • Negotiation and discussion, • Hired expertise to get the advice regard to technical, • Early warning mechanism, • Post project review 	<ul style="list-style-type: none"> • Appointed technical team with the contract, • Hired independent partner 	Didn't anticipated
	Financial failure of the contractor	X					
	Unavailability of	√	To extract the sand, ships are very expensive,	Public	<ul style="list-style-type: none"> • Negotiation and discussion, 	Public party should give tax	

	resources		and machineries are very expensive, public party is not affordable to invest or to have such facility. Therefore in that case, public party have to pay tax concession for investors	party		concession	
		√	Government parties reluctant to take this responsibility due to insufficient fund and the facilities (unavailability of resources). There was another incident in the Breakwater maintenances, where, as per the tripartite agreement, it's given to the megapolis.	Public party	We had discussions and meetings to sort out the issues. However it is the public party's obligation. They are bound to do	<ul style="list-style-type: none"> • Public party could have done proper financial feasibility study and could have allocated the risks to private party since they are the best party able manage this issue. Since the private party have knowledge and funds, and other staff for the maintenance • Improve adequate skills on PPP arrangement • Clear goals & mutual benefit objectives • Clarity of roles & responsibilities of parties • Well defined communication systems & training and education in communication skills & behavior • Core group & accessible information systems • Enhance the parties close cooperation • Maintaining contemporary reports • Early warring mechanism, Notice & Records 	
	Technical inadequacy of the contractor	X					
	Unforeseen site condition	X					
Political	Inconsistencies in government policies	√	Yes. There are lots of issues regards to this. Earlier we were in the Mega polis, after the	Public party	Sometimes, contract document also we have to revised. Unstable system also affect to	<ul style="list-style-type: none"> • As a professional, we can suggest something for this issues. Such as 	GOSL or political

Related		<p>new government, now we are under ministry of Urban development, water supply & housing facilities. When there is changes, each and every rules and regulations also changing. Again we have to follow new system. Now both (public & private) parties are now affected</p> <p>As per contract agreement was between Ministry of mega polis and CHEC. Now CHEC is remains unchanged, but public institute changed. Total formats also changed. Again contract document have to be changed. There may be no valid to the previous contract document. These will make more conflicts in future also.</p> <p>CHEC has taken the insurance, bank loan, which cannot be easily change.</p> <p>And also, Some guarantees have given under the name of Mega Polis,</p>		<p>this kind of PPPs project. In other countries, however the government changed, the internal institutes or ministries not changing, its remains the same.</p> <p>It was out of control since it is the political or government changes.</p>	<p>there should be the entity which should not be changed. There should be a permanent rules and regulations,</p> <ul style="list-style-type: none"> • Centralized System to be implemented for all PPP projects • PPP unit is to be improved and proper administrative framework to be established • Strong national policy is to be developed for PPP 	<p>issue. Couldn't do anything</p>
		<p>√ Former government have decided to give 20ha freehold land to the private party. New government changed the law and converted the freehold land to lease land. Because foreigners cannot own the land in Sri Lanka</p> <p>Environmental regulatory violations by the private party found by the government</p>	Public party	<p>Negotiated and compensated for the delay occurred by the government</p>	<ul style="list-style-type: none"> • Long term leasing • Beforehand policies must be discussed, negotiated and agreed. • Comprehensive due diligence studies being done with regard to the applicable regulations, environmental and otherwise, • Regulatory requirements to be provided by the public sector partner in the contract very comprehensively • Develop the strong enabling environment for PPPs 	<p>GOSL or political issue. Couldn't do anything</p>
	Delayed in regulatory approvals	<p>√ Main thing is government have to have some assistant to get the regulatory approvals for this project. Getting regulatory approval is not that much of easy, there are so many procedures have to follow by each and every organization.</p>	Public party	<p>Then we had to have some compromise. Therefore this kind of regulatory requirement fulfilling with their schedule is very difficult, which will turn into conflicts or disputes.</p>	<ul style="list-style-type: none"> • Government has to have some assistant (steering team) to get the regulatory approvals for the PPP type of project. 	<p>Sometimes, it is mandatory delay</p>

			But developer is having the schedules, and they are not familiar about the Sri Lankan system and they think that they can get the approval within very shorter time, accordingly, they prepared the master plan, work schedule. But they can't fulfill within those period. Then we had lots of argument. For example, recently also we had some conflicts regards to supply of electricity. They are going to implement some separate system which is not comply with our own system. It is due to two different practices in both countries. To get the approval, too much of time spending not like other countries		In-house meetings, discussion, Negotiations,	<ul style="list-style-type: none"> • Permanent entity which should not change with the government and it should be there for the PPP types of project. • Government should have the policy that incur any sort of government came still this development has to be gone through. Therefore, there should be a national policy, education, PPP framework 	
		√	Basically there are two party (government and developer). Normally we ask the investor to invest. There is no any master plan in Sri Lanka. However we ask private party to invest, normally for the mass-scale project we have to do the EIA. It will normally take one year. To get the all the necessary licenses and approvals, clearance from regulatory authority, it will normally take another 2 years, then the investor is discouraged. That is the main issues. Therefore the investor are reluctant to invest for other future PPP projects in Sri Lanka, due to delay in regulatory approvals and frequent changes in the political system in Sri Lanka.	public party	Project delayed. Government made discussion with developer and negotiated to withdraw the claims	<ul style="list-style-type: none"> • Therefore, the PPPs framework should be developed for Sri Lanka for PPPs projects. • Proper PPP investment framework to be developed • Master plan should be developed • There should be firm national policy for PPP • GOSL should ease the procedure to mass-scale PPP projects 	Sometimes, it is mandatory delay
	Expropriation or Compulsory acquisition of project assets	X					
	Unlawful revocation or Breach of contract by government	√					
	Changes in government	√	Yes. There are lots of issues regards to this. Earlier we were in the Mega polis, after the	Public party	Sometimes, contract document also we have to revised. Unstable system also affect to	<ul style="list-style-type: none"> • As a professional, we can suggest something for this issues. Such as 	GOSL decision.

			<p>new government, now we are under ministry of Urban development, water supply & housing facilities. When there is changes, each and every rules and regulations also changing. Again we have to follow new system. Now both (public & private) parties are now affected</p> <p>As per contract agreement was between Ministry of mega polis and CHEC. Now CHEC is remains unchanged, but public institute changed. Total formats also changed. Again contract document have to be changed. There may be no valid to the previous contract document. These will make more conflicts in future also.</p> <p>CHEC has taken the insurance, bank loan, which cannot be easily change.</p> <p>And also, Some guarantees have given under the name of Mega Polis,</p>		<p>this kind of PPPs project. In other countries, however the government changed, the internal institutes or ministries not changing, its remains the same.</p> <p>It was out of control since it is the political or government changes.</p>	<p>there should be the entity which should not be changed. There should be a permanent rules and regulations,</p> <ul style="list-style-type: none"> • Due to these reason we SL is 100 years back compared to other countries. • Otherwise we lose the investors. 	We can't control
		√	<p>Due to the changes in government, there were lots of conflicts, because we have politically profitable projects.</p>	public party		<ul style="list-style-type: none"> • Proper negotiation at early stage. • Proper validation before implementation • We should have the master plan for benefits of country. 	
	Interruption of the procurement process	X					
Legal related	Changes or inconsistencies in legislation	√	<p>However we had very big issue with land which is very fresh to add to the main existing land. There is no owner for this land. It is now taking to GOSL. There is several administrative concern when we develop this kind of city. There are 75000 people stay as residents and 250000 temporary. For them administrative system did not established yet. According to attorney general department, if we deploy the people, cannot be collect tax from the smart city people as same as general</p>	Public party	In-house meetings, discussion, Negotiations,	<ul style="list-style-type: none"> • Good way is to establish the rules and regulation for the PPPs projects. And we have to resolve all these requirements before the projects start. • Early attention for the issues. 	Government decision. Cant do anything

		public of Si Lanka. There is a regulatory authority to collect the tax, UDA rules have to be followed. So these regulatory system we cannot directly apply for the people who lives in smart city. These regulations are not yet finalized. That is the big issue and it will arise as disputes in future. This the responsibility of government. To implement this kind of projects, government had to fulfill all these requirements. GOSL have to have the master plan to absorb these projects.				
	√	Changes in law by public party due to following; Restriction on transfer of ownership rights to private party (Project delayed due to unavailability of legal background)	Public party	In-house meetings, discussion, Negotiations,	<ul style="list-style-type: none"> • Long term leasing • Due diligence • Comprehensive feasibility studies 	Lack of legal background or procedure to acquire the reclaimed land
	√	Administrative system and rules and regulations for the people in smart city is not yet finalized	Public party	In-house meetings, discussion, Negotiations,	<ul style="list-style-type: none"> • Develop the strong legal and regulatory framework for PPP projects • Improve the knowledge in PPP system 	Due to lack of knowledge
Corruption and lack of respect for law	√	There was lack of respect for law by the developer. Developer was instructed to stop the work during the independence day as per the Sri Lankan rules. But the developer reluctant to stop the work, however to respect the law, we forced them to stop and they claimed for the idling charge for their machineries and equipment, and labours and workers. Since the ceremony took place with artilleries in Galle face which very closer to the site and there was the ceremony which contained the heavy war. And the developer's	Private party & public party	They put the claim (delay claim, idling claim), but we didn't pay them. We negotiated with them by explaining the national event. Sometimes, they can go for the court also. Because there was loop holes in our contract. Because, when we draft the contract we didn't include the terms like this. There was a human mistakes, we can't be included all the things.	<ul style="list-style-type: none"> • Increase the quality of contract drafting and conditions to be included in the contract document • There can be human errors. We can't include all the things in the contract (100% can't give the solution). So there should be certain guideline for PPPs projects and procurement guideline and policies to be introduced. 	Lack of partnership approach No conditions in the contract
Industrial regulatory change	X					
Import and export restrictions	X					
				<ul style="list-style-type: none"> • Negotiated and settled 		

			ships and all were in sea to extract the sand.			<ul style="list-style-type: none"> • PPP guideline to be prepared for this kind of minor conditions. Everything cannot put in the main agreement • There is the PPPs institute, but they only think how to run the PPP smoothly, but they are not coordinating with other regulatory authorities such as CEA, pradasasabha, urban council, coastal conservation, water board. There is no link. That is the main problem in our country. So, PPP institutional framework to be improved 	
Economic related	Changes in interest rates and foreign exchange rates	X					
	Changes in tax	X					
	Changes in debt Financing terms	X					
Market & revenue related	Unfavorable market conditions	X					
	Exceeded design capacity	X					
	Revenue adjustment	X					
	Uncertainty of tariff setting	X					
	Fluctuation of material cost	X					
	Variable in forecasted equity's return / Extra profit	X					
operation and	Changes in operating requirements or operation scope and	X					

managem ent	quality						
	User dissatisfaction	X					
	Inadequate safety in operation	X					
	Operations cost overrun	X					
	Delays or interruption in operation	X					
	Failure of related infrastructure and unexpected maintenance	X					
owners hip /transf er	Concerns of local residents' rights and interests	X					
	Noncompliance with scope of transfer component	X					
	Payment of final installment issues	X					
Huma n behavi or related	Poor communication	X	Adversarial culture in between public party's agencies	Both	<ul style="list-style-type: none"> • Good training and educating the communication skills and their behaviour. 		
	Adversarial culture / cultural differences between main stakeholders	√					
	Lack of commitments or team spirit	√				Lack of partnership practice between public and private parties	<ul style="list-style-type: none"> • Improve parties close cooperation & effective relationship management
	Lack of domestic skills or inadequate experience in PPP projects	√				Yes. This kind of port construction, public party doesn't have the expertise for the PPPs projects and for the coastal development	<ul style="list-style-type: none"> • Government have to do the PPPs projects with local contractors also. Mostly PPPs projects are open for the foreigners, so less chance of getting experience in PPP projects, so that inadequate knowledge is there, so have to educate the professionals and trained them on PPP arrangement. Normally in other

					<p>countries, they first open for the local experts, local organization, and local company. Then they will also develop.</p> <ul style="list-style-type: none"> • Therefore, we can include some conditions in the contract that, “this project should contain this much of local expertise” • Improve the adequate knowledge on PPP approach necessary by having proper training, series of workshops, seminars, study sessions and practical experiences in the PPPs project • Appoint expert or obtain expert advice when drafting the document and during disputes PPPs in the project 	
	Lack of coordination between different authorities	√	Lack of coordination between public party’s agencies	Discussed, Negotiated and settled	<ul style="list-style-type: none"> • Improve lines of responsibilities within the public agencies • Improve the transparency • Improve the PPP unit to coordinate all the agencies • Education on clear goals & mutual benefit objectives • Good training and educating the communication skills and their behavior. 	
	Private party’s general practices	√	Their thinking with the mind of system in their country. Difficult to adopt the SL practices. They are not ready to think the hazards, difficulties, environment, social impact. They planned everything as per their system. But when the project is started, this will affect to the project time, cost and quality. And also, they thinks, they are investing, so	Discussed, Negotiated and settled	<ul style="list-style-type: none"> • Public party should be aware about it and should get ready for that • Bringing an engineer who is mutually acceptable and who knows both industry, both cultures and traditions’ and to be included in the contract 	

			GOSL have to relax with all the aspects which is difficult. In that they are making all the documents, then always coming with several claims, several discussion, conflicts arbitrations. Those things also affect to projects by cost, time , delay sometimes suspend				
	Bad anticipation by parties	X					
Environmental Factors	Unpredictable level of pollution	√	Because people opposition is there to this project, several parties complaining about this project. There is some queries from the lot of people, related to the quarry materials which we are taking for this project. Due to mass scale of quarry production, blasting, mining, vibration, dust noise pollution, surrounded people life affected	Private party		<ul style="list-style-type: none"> • Proper awareness programme have to be introduced • Proper Social impact assessment 	Due to less experience
			When the developer do the construction activities, it produces the dust, vibrations, noise, etc. due to those, adjacent hotels were not run and they were complains due to uncomfortable for the tourist, and their swimming pool contaminated with sand. So when they complain, those things we didn't identified at early stage, so we disturb the work of private party. Port city located near to presidential building, which contain the bricks construction, it was challenge to the parties to do the construction without affect to that building. So it disturb the construction activities of private party	Private party and general public	For vibration case, we asked relevant authority to monitor & investigate. Some commercial firm complaining and sending claims to make profit. We did the investigation, they did not accept our decision. Then we had to have some independent authority to monitor and communicate with the commercial firms. It involves lots of cost and time. We took so many precautionary activities without affect to that building. Developer had to find the alternative methods. Methodology also had to be identified.	<ul style="list-style-type: none"> • There were so many administrative difficulties in PPPs projects. There should be a regulatory system for the PPPs project only. • Centralized system should be there for PPPs to monitor or control 	
	Force Majeure/ Weather	X					
	Public opposition of project	√	There were conflicts in sand extraction. We provided the sea (site), but during the construction period, they faced lots of	Public party &	Social impact assessment; flexibility, Negotiated with people, church, fishermen, boat owners, political party; we compromise	<ul style="list-style-type: none"> • Proper awareness by both parties programme have to be introduced 	

			difficulties due to protest from the fishermen, environmental issues, developer had to stop extraction for some times until the negotiation. But for the developer's idling cost for machineries. Those are the main conflicts. We had big issue regards to exacting the sand from Negombo area; fisherman, and environmental There are so many objection from the general public since they are not aware Lapse in communication is there between project proponent and people No transparent to the outside people	private party	all and we gave solution. As a government we have to think about investor as well as the country. We had awareness programme, such as community programme	<ul style="list-style-type: none"> • Transparency because if there is transparency, then objection is less, if we try to hide, lots of problem against the projects 	
	Public opposition of project	√	Affect the livelihoods, species severe damages to environment	Both	<ul style="list-style-type: none"> • Public awareness programme 	<ul style="list-style-type: none"> • Proper social impact assessment • Proper communication with general public • Proper EIA report 	Less experience in PPP
	Environmental issues / conflicts in environmental clearances	√	Because people opposition is there to this project, several parties complaining about this project. There is some queries from the lot of people, related to the quarry materials which we are taking for this project. Due to mass scale of quarry production, blasting, mining, vibration, dust noise pollution, surrounded people life affected	Private party	<ul style="list-style-type: none"> • Public awareness programme 	<ul style="list-style-type: none"> • Proper awareness programme have to be introduced through PPP forum • Social impact assessment 	General Public doesn't have the idea on PPP
			In addition to this, there were conflicts in selecting the trees for landscaping work was not an easy tasks. And when we select the materials for the projects, there were environmental challenges regards to changing of the bio-diversity.	Private party	So we had to consider all by getting experts idea. But again It took time to clear, in that case, there were conflicts by considering the idling time of developer.		
				Public party & private party	So we did environmental impact assessment, social impact assessment, and some migratory measures also we introduced technically to fulfill all above Sri Lankan requirement. And we reshaped it, and change the orientation, likewise, we put	Each parties should have responsibilities over the natural system and environment, whether it is public party or private party. Also parties should respect the people's rights.	

				much effort to minimize the effects from previous designs as much as fulfill the engineering side as well as the architectural features. During those stage there were lots of conflicts arose.		
		√		<p>Due to general public</p> <p>For vibration case, we asked relevant authority to monitor & investigate. Some commercial firm complaining and sending claims to make profit. We did the investigation, they did not accept our decision.</p> <p>Then we had to have some independent authority to monitor and communicate with the commercial firms. It involves lots of cost and time.</p> <p>We took so many precautionary activities without affect to that building. Developer had to find the alternative methods. Methodology also had to be identified.</p>	<ul style="list-style-type: none"> • There were so many administrative difficulties in PPPs projects. There should be a regulatory system for the PPPs project only. • Centralized system should be there for PPPs to monitor or control 	No proper policies
			This project suspended for two years due to environmental and political problem.	Public party	Negotiated with government and compromised the issues	We did Negotiation.