

**AN EVALUATION ON CAUSES OF DELAYS RELATED  
TO PRE-CONSTRUCTION PERIOD APPROVAL  
PROCESS OF HOTEL CONSTRUCTION PROJECTS**

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Degree of Master of Science in Project Management

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Sri Lanka

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Thesis submitted in partial fulfillment of the requirement for the degree of  
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## DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgment of 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 acknowledgment is made in the text.

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Date

## **ABSTRACT**

A project consists of a defined timeline. Any failures in achieving the targeted timeline may create difficulties in project financing and also in project management. Due to several reasons, the actual timeline of a project can differ from the expected timeline. A construction project goes through the initiation phase and planning phase, before commencing the construction works that are conceded as the pre-construction stage.

The tourism sector plays a crucial role in the Sri Lankan economy. Accordingly, there is an essential and continuous requirement for large-scale tourism hotel construction projects. In Sri Lanka, for large-scale construction projects, there are a lot of approval burdens that can be identified within the pre-construction phase. The pre-construction stage of the large-scale hotel project consists of many approvals/clearances from relevant government authorities and pre-feasibility studies that have frequently lead projects towards delays. Hence, this research focused on the delays related to the pre-construction period approval process of large-scale hotel construction projects.

To accomplish the aim of the study, a literature review was carried out to review the details on the pre-construction approval process, causes of delays effect on the same process, and recommendations /strategies to overcome the causes of delays.

Empirically, five (05) large-scale hotel construction projects were selected as case studies and identified the variations of the actual time duration versus expected time duration for each case. Also, 20 causes of delays in the approval process were uncovered by interviewing the project stakeholders. “Consultant and design team delays” and “the complication of the approval process” are the main causes of delays that were identified in this research. Finally, the research concluded several recommendations/strategies to overcome the respective delay causes; e.g. to overcome the institutional framework-related delays; “adoption of a single-window approval process” and “create high accessibility for the information”.

**Keywords:** Pre-construction approval process, Hotel construction project, Causes of the delays, Recommendations/strategies

**DEDICATION**

*To My beloved family.....*

## ACKNOWLEDGEMENT

The present work is an effort to throw some light on identifying the issues in the pre-construction period of large-scale hotel construction projects. This work would not have been possible to come to the present shape without the assistance, support, and encouragement of many wonderful people to whom I wish to convey my sincere gratitude.

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## LIST OF ABBREVIATIONS

<b>Abbreviation</b>	<b>Description</b>
CCD	Coast Conservation Department
CEA	Central Environment Authority
DMC	Disaster Management Center
EIA	Environmental Impact Assessment
ER	Environmental Recommendation
FA	Final Approval
FICCI	Federation of Indian Chambers of Commerce and Industry
IEE	Initial Environmental Examination
NBRO	National Building Research Organisation
NEA	National Environmental Act
OSU	One Stop Unit
PAA	Project Approving Agency
PIA	Planning Institute Australia
SAIL	Supporting Accelerated Investment in Sri Lanka
SLCB	Sri Lanka Convention Bureau
SLITHM	Sri Lanka Institute of Tourism and Hotel Management
SLTDA	Sri Lanka Tourism Development authority
SLTPB	Sri Lanka Tourism Promotion Bureau
UDA	Urban Development Authority
UNWTO	United Nation World Tourism Organisation
USAID	United States Agency for International Development

## **APPENDICES**

Appendix A – Database of the line agency pre-construction approvals of the selected  
case study hotel construction projects

Appendix B – Interviewer’s Guidelines

# CHAPTER 01

## 1. RESEARCH BACKGROUND

### 1.1. Introduction

Every project comprises main phases; initiation phase, planning phase, implementation (execution) phase, and closing phase, which is commonly applied to the construction project also (Westland, 2006). Harelimana (2017) figure out that, each project has a unique process, including a set of synchronised and controlled actions with a beginning date and, completion date commenced to achieve an objective conforming to specific requirements, including constraints of the timeline, project cost, and capitals. Therefore, project activities depend on time, cost, resources, and risk (Adams & John, 1997). Also, each project consists of a defined timescale, the failures in achieving such time targets will lead to problems in project cost and resources management (Westland, 2006).

According to Andújar-Montoya, Gilart-Iglesias, Montoyo, and Marcos-Jorquera (2015) before commencing a construction project, the pre-construction period (Initiation phase and planning phase) requires approvals from government agencies and it is a common situation internationally and locally. For example, in the United Kingdom, large scale construction projects need to get planning permission, building regulation approval, health, and safety certificate, environmental consent approvals from the pertinent line agencies (Baiche, Walliman & Ogden, 2006). Moreover, Australia has a single point approval system for the pre-construction period, handled by the local authorities, and receiving those approvals, it covers all the pre-construction level approval requirements (Government of South Australia, 2002). In India, for the large-scale construction project in Mumbai, there are three (03) main stages can be identified at the pre-construction level as follows; (i) Project feasibility stage, (ii) Sanction stage, (iii) Building permit stage (Central Public Works Department- India, 2013).

According to the SLTDA (2011), in Sri Lanka for a new construction project, the project proponent needs to get the approvals or clearances from project stakeholder

government organisations before commencing the construction as well as after completion of the project. In Sri Lanka, below shows the normal process for the pre-construction period approval process of construction projects related to the tourism sector (USAID supporting accelerated investment in Sri Lanka [sail] project, 2018); (i) Land clearance stage, (ii) Initial design, (iii) Preliminary approval stage, (iv) Environmental approval stage, (v) Final design stage, and (vi) Construction approval stage.

According to the above details on the international and local level of the pre-construction period approval process, it consists of several approvals /clearances from the relevant government agencies before commencing the construction process (USAID sail project, 2018). According to the project scale and the sensitivity of the project area, the project approval process and relevant institutions get vary, and also, these approval processes commonly bring delays to the projects (Tupe, 2019).

Delay is usually recognised as the most common, costly, complex, and risky problem that comes across within the construction industry and construction project delays can be identified as a universal phenomenon. According to Ahmed, Azhar, Kappagntula, and Gollapudil (2003), due to several factors, delays happening in construction projects. It was also common for the pre-construction period of every project. Delays causes can be identified as (i) Internal causes of delays (causes related to project proponent, project contractor, or project consultants) and (ii) External causes of delays (causes related to relevant government agencies and stakeholder populations) (Ahmed et al.,2003). Both internationally and locally there are several studies conducted to investigate the causes of delays in construction projects as discussed below.

Assaf and Hejji (2005) conducted studies on “Causes of delay in large construction projects in Saudi Arabia”. Another research was conducted by Kwatsima (2016) “An investigation of the reasons for the delay in large-scale construction projects in Kenya”. Moreover, Tafazzoli and Shrestha (2017) researched “Investigating causes of delay in United State construction projects” and they collected the data from previous studies and project expertise. Fugar and Agyakwah-Baah (2010) researched “Delays in building construction projects in Ghana”.



In the Sri Lankan context, Samarakoon (2009) researched identifying the reasons for delays in medium scale building projects in Sri Lanka and gave recommendations for the minimisation of such delays. Jeyakanthan and Jayawardane (2011) researched to identify significant reasons for delays in the donor sponsored project. Dolage and Perera (2009) discussed the delays in the pre-construction stage of government sector construction projects.

Accordingly, the previous studies on causes of delay in building projects, in both international and local contexts mainly focus on the implementation (execution) phase. Some studies covered the initial stage and planning stage of the construction project and identify the factors of delays; however, those studies focus on the project proponent, contractor, or consultant related matter rather than institutional issues or approval process of the project.

Accordingly, almost all large-scale hotel projects need to follow the complicated approval process with obtaining the relevant approvals or clearances from government institutions in the pre-construction period (initiation and planning stages). Due to this external factor, it can arise delays for the total project and accordingly escalation of project cost, time duration, and project risk can be occurred (USAID sail project, 2018).

The tourism industry is one of the largest industries in the world with the contribution of United States Dollars (USD) 1.7 trillion for the world economy with 1.4 billion international tourist arrivals in 2018 (Sri Lanka Tourism Development Authority [SLTDA], 2018). In Sri Lanka, tourism is the third-largest export earning source in the economy, wherein in 2018, the foreign visitor arrivals reached more than a 2.3million and income generation was near US\$ 4.4billion (SLTDA, 2018).

Tourism accommodation is, the main and most unique sub-sector in the tourism industry, and most of the time, tourists need a place where they can do relaxation during their travel through or stay within, a tourism destination (Cooper, Fletcher, Fyall, Gilbert & Wanhill, 2008). Considering the tourism accommodations according to Goodall (1989) it can be identified two (02) categories (i) Service base accommodations (hotels, guest houses, motels, holiday camps, etc.), and (ii) Self-

catering accommodations (apartments, bungalows, rented homes, etc.). In Sri Lanka, there are also two (02) main categories of tourism accommodations; (i) Hotels and (ii) Supplementary accommodations (guest houses, rest houses, homestay units, tourist bungalows, and tourist apartments) (SLTDA, 2018).

According to the Sri Lanka tourism strategic plan 2017-2020, for the year 2020 government of Sri Lanka has targeted four (04) million international visitors and expected an income of USD 7 billion (Ministry of Tourism Development and Christian Religious Affairs, 2016). In the present conditions, Sri Lanka has 45,000 rooms as tourism accommodation units within all the sectors of tourist hotels and supplementary accommodations (SLTDA, 2018). To cater to four (04) million international visitors, Sri Lanka needs to have a minimum of 90,000 accommodation units, and nearly another 45,000 accommodation unit's shortage can be identified. Therefore, the rapid development of high-quality accommodation facilities is essential for Sri Lanka to cater to future demand (Fernando, 2017). This would lead to the appearance of many hotel projects in a short period. Therefore, the risk of getting these projects delayed along with the approvals will create economic disadvantages. Therefore, not urge research in this area to uncover where and how the possible delays may occur.

## **1.2. Problem statement**

There is a lack of researches and studies carried out internationally and locally to investigate the causes of delays during the initiation phase and the planning phase of projects in general. In addition to that, there were inadequate studies on the pre-construction approval process and causes of delays in the pre-construction the approval process for large-scale construction projects, especially in the Sri Lankan context. There were no specified studies carried out to examine the large-scale hotel construction project approval process and relevant causes of delays due to the pre-construction period approval process. Therefore, this research mainly focuses to find the “causes of delays that are directly affecting on pre-construction period approval process in Sri Lanka” evaluating the pre-construction approval process” to devise strategies to overcome such delays. Accordingly, it precisely focuses on the tourism sector's large-scale hotel construction projects in Sri Lanka.

### **1.3. Aim and objectives**

This study aims to investigate delays during the pre-construction approval period of large-scale hotel construction projects. The followings are the objectives of this study;

- Critically review the existing pre-construction period approval process, related to large-scale hotel construction projects
- Explain the challenges for the pre-construction approval process in large-scale hotel construction projects
- Analyse the causes for delays in large-scale hotel construction projects, at different stages of the pre-construction period approval process
- Propose strategies and recommendations to overcome the delays related to the institutional frameworks in the pre-construction period approval process of the large-scale hotel construction projects

### **1.4. Methodology**

A comprehensive literature review was carried out to revealing related necessary information leading to the identification of the pre-construction period approval process of the large-scale hotel construction projects. The literature review identified the causes of delays, and also recommendations and strategies to overcome the delays, which are related to the pre-construction period approval process of construction projects. By doing the simple mathematical calculation over the secondary data obtained, it was possible to study the actual time duration taken for the approval process. The selected case studies, allowed to collect the primary data via semi-structured interviews on causes of delays in the pre-construction period approval process of the large-scale hotel construction projects. Such qualitative data were subjected to content analysis to derive research findings on strategies to overcome the delays in the pre-construction period approval process of large-scale hotel construction projects.

### **1.5. Scope and limitations**

The scope of this research is to identify the causes of the delays in the pre-construction approval process for the selected hotels with more than 100 rooms and investment with more than 500 million Sri Lankan Rupees.

As the case studies have been selected the projects were directly submitted to the SLTDA and gone through the One-Stop Unit process, due to minimising disturbance on data collection purposes. Accordingly, five (05) large-scale tourism projects (more than 100 rooms and investment more than Rs. 500Mn) which are located in different areas of the country, were selected as case studies.

By suggesting the strategies and recommendations for identified causes of delays related to the pre-construction period approval process, it is only focusing on institutional framework related causes of delay.

### **1.6. Research structure**

In the first chapter, the research background, problem statement, objectives, the methodology of the research, and research scope and limitations are discussed. The second chapter focuses to do a comprehensive study of the research background and relevant case studies as a literature review. The third chapter discusses the research design, sample selection, data collection methods, and data analysing methods. Accordingly, chapter four focuses on data analysing and research findings. Chapter five present the conclusion, recommendations, and suggestions for the research.

### 2. LITERATURE REVIEW

#### 2.1. Introduction

This chapter presents the review of the literature on elements and process and hotel construction projects, the process of the pre-construction period of the projects, causes of delays in the project approval process for hotel construction projects, and strategies to overcome the causes of delays in hotel construction projects. Accordingly, the nature of the hotel construction project, the approval process, and the regulations and process of the relevant line agencies were discussed.

#### 2.2. Tourism

Referring to the Commission of the European Communities, Organisation for Economic Co-operation and Development, United Nations, and World Tourism Organisation (2001) “tourism comprises the activities of persons traveling to and staying in places outside of their usual environment for not more than one (01) consecutive year for leisure, business or other purposes” (p.1). At this phase, one could differentiate among domestic and foreign tourism (Yuksel, 2004). Tourism grows from the movement of millions of tourists which leads to the development of numerous and multifaceted activities, opportunities, and approaches related to the tourism industry (Page, 2014). The tourism industry mainly focuses on serving travellers and a positive experience of the tourist, depends on the collaboration of all tourism sectors, and the following main four (04) sectors can be identified; (i) Transportation (ii) Accommodation (iii) Ancillary services, and (iv) Sales and distribution (Camilleri, 2018). The following sections focus on the local (Sri Lankan) context of the tourism industry, its evolution, and its functions.

##### 2.2.1. Tourism in Sri Lanka

According to Fernando (2017), Sri Lanka has been a famous tourist destination for thousands of years due to its geographical position and uniqueness, however, within the pre-independent period, most of the European travellers visited Sri Lanka through

cruise ships and other vessels, and then they mainly visited Colombo and Kandy cities and environs. Therefore, it can be identified few hotels like Galle Face hotel and Mount-Lavinia hotel in Colombo, and Queens hotel in Kandy opened for caters to this market (Fernando, 2017). In addition to these luxury hotels, other accommodations were built as rest houses, and those accommodations established with places with scenic beauty and ancient value like; Nuwara Wewa, Ella, Belihul Oya, Polonnaruwa, Kithulgala, etc. with this tourism infrastructure development, it can be identified rapid growth of the tourism industry from 1950s period (Fernando, 2017).

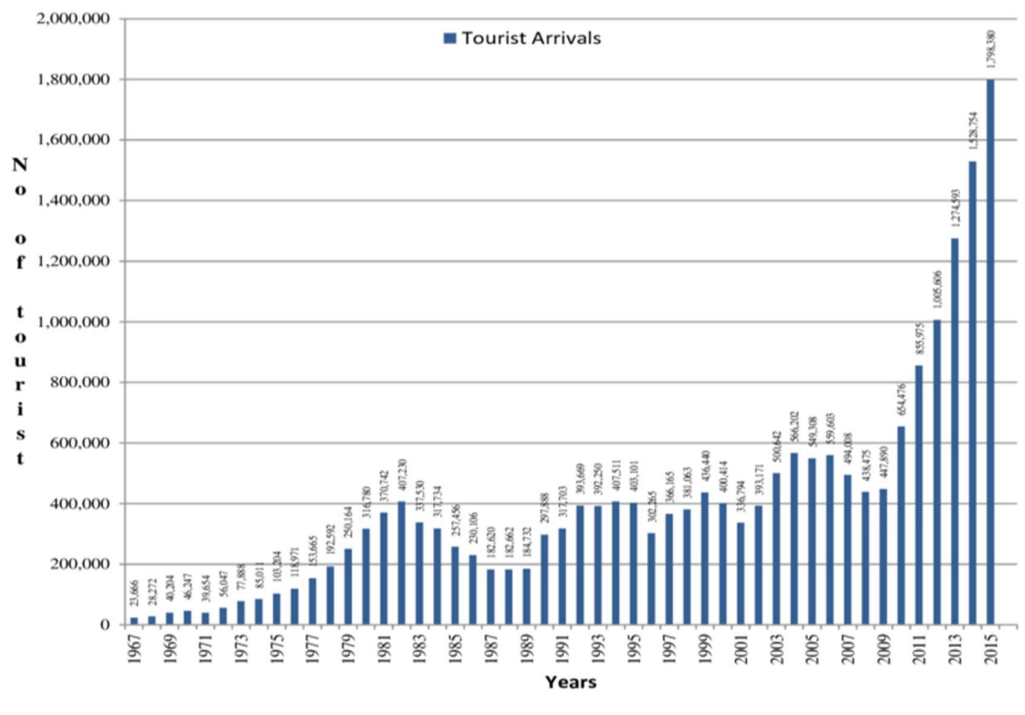


Figure 2.1: Tourist Arrivals to Sri Lanka and year on year growth from 1966 to 2015  
Source: SLTDA Annual Report 2016

By referring to Fernando, Bandara, and Smith (2016), in the 1960s and 1970s government encouraged tourism-related investors with financial benefits, providing land on concessional rates, and providing tourism-related infrastructure facilities. Hence, it formed the first massive tourism growth, and the beginning of new hotel constructions generally arisen along the South-West coastal belt (especially in Mount Lavinia, Hikkaduwa, and Unawatuna areas).

According to Fernando, Bandara, and Smith (2016), from 1983 to 2009 period, due to the war situation of the country, foreign direct investments (FDI's) and foreign tourist attractions were missed and the tourism service sector also suffered from this situation. With the tsunami disaster in 2004, it increased the damage to the tourism sector by destroying most of the tourism infrastructure in coastal areas (Fernando, Bandara, & Smith 2016: Tisdell & Bandara, 2005).

From the 2009 post-war period, the Sri Lankan tourism industry had fast growth and become one of the largest exports earning sources in the economy of Sri Lanka. Figure 2.1 shows the growth of international tourist arrivals from 1967 to 2015 (SLTDA, 2016).

SLTDA (2018) referred that, in 2018 international tourist arrivals count was almost five (05) times from 2009 count (international tourist arrivals 2009: 0.45 million and 2018: 2.3 million). With this tourism sector boom, it has made a huge requirement of the tourism accommodations to cater to the growth of international tourists (SLTDA, 2018). According to Fernando (2017), to fulfill the above accommodation requirement, several categories of tourism accommodation can be identified; hotels, guest houses, homestay units, apartments, and camping sites. Accommodation is more important for tourists and if a country focuses on high-end tourist arrivals, accommodation units should be fulfilled international tourism standards (Fernando, 2017). Therefore, hotels are a key element to cater for the international tourists with the international tourism standards with catering to large numbers (Fernando, 2017).

### **2.2.2. Tourism institutional framework in Sri Lanka**

Sri Lanka Tourism Development Authority (SLTDA) is the main state institution that handles the tasks of tourism planning and development, regulation, and policy implementation of tourism and tourism-related industries (Ministry of Tourism Development and Christian Religious Affairs, 2016). Before establishing the SLTDA in 2007, these functions mainly belong to the Ceylon Tourist Board and it was established in 1966, then from 2007 the Sri Lanka Tourist Board annulled with setting up of four (04) institutions as follows; (i) Sri Lanka Tourism Development Authority (SLTDA), (ii) Sri Lanka Tourism Promotion Bureau (SLTPB), (iii) Sri Lanka Institute

of Tourism and Hotel Management (SLITHM), and (iv) Sri Lanka Convention Bureau (SLCB) (Ministry of Tourism Development and Christian Religious Affairs, 2016). Among the four (04) institutions, SLTDA is the main body for the planning, development, regulation, and policy implementation of tourism and related industries (Ministry of Tourism Development and Christian Religious Affairs, 2016).

According to the SLTDA classification guidelines, there are several tourism products and services can be identified as follows and for every category, SLTDA has a separate gazette notification to classify those products and services; Classified Hotels (1 star to 5 stars), Small Luxury Hotels and Villas, Guest Houses, Home Stay Units and Apartments, Water Sports Centre, Travel Agencies and Spice Gardens (Ministry of Tourism Development and Christian Religious Affairs, 2016).

### **2.2.3. Hotel sector**

Camilleri (2018) figured out that, the accommodation sector plays one of the major roles in the tourism industry, and hotels are the most significant and generally recognised service providers in the accommodation sector. According to Manurung and Tarmoezi (2002) hotels are identified as a building that is used for commercial purposes lodgings and offers services for guests such as keeping luggage of the guests, ordering vacant rooms, registering guests, giving information, and providing food and beverage.

The classified hotel follows a code by evaluating the comfort level and range of services related to the hotel operation (Foris, 2011). Internationally, it can be identified in many classification systems used by public authorities and private sectors. Different methods can be used for different countries and regions, depending on the elements of the hotel classification and the nature of the tourism sector (public or private) (Minazzi, 2010).

According to Foris (2014), mainly, the hotel classification criteria based on the comfort level of the hotel and it composes of the following parameters; (i) Surface area of the location, area of public spaces, room sizes, and the number of the touristic spaces, utilities, and rooms. (ii) Conditions of interiors and sanitation utilities. (iii) Types of catering services. (iv) Construction, access, and landscape quality. (v) Level of



technical services like internet, television, minibar, etc. (vi) Level of supplying additional services.

In Sri Lanka according to gazette No. 1963/28 - April 20, 2016, there are five (5) classes of hotels that can be identified. To demarcate the star classification for the hotels' several criteria need to be conceded as follows; hotel building, main services, bedroom and bathroom, kitchen and restaurant, staff facilities, safety and security, facilities for differently-abled guests, and environmental sustainability (SLTDA gazette, 2016). Together with the above requirements 195, several requirements need to be fulfilled to get the star class classification (SLTDA gazette, 2016).

### **2.3. Project and hotel construction project**

The following definitions can be identified from various institutions and authors for the “project”; the project in general refers to a new endeavour with a specific objective and varies so widely that it is very difficult to precisely define it. Some of the commonly quoted definitions are as follows:

A project is a temporary endeavour undertaken to create a unique product or service or result (PMI, 2008a, p. 5).

A project is a one-time job that has defined starting and ending dates, a specified objective, or scope of work to be performed, a pre-defined budget, and usually a temporary organisation that is dismantled once the project is completed (Lewis, 2007).

Accordingly, for the hotel construction project, at the beginning it consists of a time plan to complete the project, the cost estimate for the total project, pre-define the budget for every element, a unique design for the project, and specified goals up to commence the operation of the hotel, targeted markets, targeted star rating, etc. (Lewis, 2007).

### **2.3.1. Project attributes for hotel construction project**

Every Project can be separated from the normal process with its following attributes (Phillips, 2003);

- I. Process and deliverable - A project is a process aimed at the achievement of specified one or more objectives. For the hotel project, complete the project within the estimated period and commence the hotel operation will be the main objectives.
- II. Project goal – Beneficial response to a problem or opportunity projects are goal-oriented and so have an ultimate beneficial purpose. Most of the time the ultimate goal of the hotel construction project is to end the project within the targeted time frame, and within the estimated budget.
- III. Unique - a project is a unique, one-off, discrete undertaking and it is never repeated exactly. Consider the hotel construction project its design, location, room count, investment, and other facilities and services differ from another hotel construction project.
- IV. Finite - A project is a temporary process having a limited duration. A project has a beginning and end at which point it can be said that its objectives have been accomplished. For the hotel construction project at the beginning with the project design and end with the completion of the construction, it has its time duration for each stage and also for the total process.

Every hotel construction project consists of the above attributes and because of those attributes, hotel projects can be separated from the normal process it can be identified as a unique project (Phillips, 2003).

### **2.3.2. Project life cycle**

Every project consists of the ultimate goal to carry out the project works to meeting the project's objectives. Every project has an early stage, a middle stage during which activities move the project toward completion, and a wind-up stage (either successful or unsuccessful) (Westland, 2006). A standard project typically has the following four (04) main phases; (i) initiation phase, (ii) planning phase, (iii) implementation phase, and (iv) closure phase. When considering as a whole, these phases represent the path

a project takes from the start to its end and this path of the project is referred to as the project life cycle (King, and Cleland, 1983).

This research mainly focuses on the pre-construction period project approval process for hotel construction projects. Accordingly, from the above four (04) phases, the initial phase and the planning phase are significant for this research.

#### **2.3.2.1. Initiation phase**

During the initiation stage, the objective or need for the project should be identified and this can be a project problem or opportunity (King, and Cleland, 1983). A suitable response to the requirement is recognised in a corporate case with recommended solution options (Watt, 2014). According to Watt, (2014) a feasibility study is conducted to determine if each option meets the objective of the project, and a recommended final solution is determined. Issues of feasibility like “can we do the project?” and just like “should we do the project?” are addressed (Watt, 2014).

When the recommended solution is accepted, a project is initiated to carry the approved solution. The main deliverables and the participating project team can be identified. Approval was sought by the project manager to transfer onto the detailed planning stage (Project Management Guide, 2009).

#### **2.3.2.2. Planning phase**

The planning phase is where the project solution is further developed in as much detail as possible and the steps necessary to meet the project’s objective are planned. In this step, the project team recognises all the project process to be done (Zwikael, 2009). The responsibilities and resources necessities for the project are identified, along with the approach for creating them. A project plan is created project activities, tasks, dependencies, and timeframes (Kerzner, 2003). The project manager co-ordinates the preparation of a project estimate by providing cost estimations for the project necessities (Zwikael, 2009).

After identifying the project works, by the project team, with the preparation of the timeline, and preparation of cost estimation, the main three (03) components of the planning process are complete (Kerzner, 2003). By identifying the high-threat

potential problems with the solutions, it is easy to reduce the probability of the occurring problem or can reduce the impact of the problem, when it occurred. (Kerzner, 2003). With the identification of all project stakeholders and the establishment of the communication plan, it can be used to keep informing the stakeholders and take the clearances to form the relevant line agencies (Kerzner, 2003).

According to Kerzner, 2003, finally, to commence the construction for every project it needs to be complete the design, planning, and approval process according to the client, stakeholders, and government institutions' requirements.

#### **2.4. Pre-construction period approval process**

Large scale hotel construction project is a complex process and it significantly effects on surrounding community and environment (Designing Buildings wiki, 2020). Therefore the number of essential approvals will rise with the size, complexity and sensitivity of the project (Designing Buildings wiki, 2020).

According to Pitt (1984) and Billington (1986), the pre-construction approval procedure may differ from one country to another as it depends on the rules and regulations of the country concerned, approving of the plan and issuing of the building permit to commence the construction.

Internationally for any building construction project, the project proponent needs to be having a set of approvals, clearances, as well as sanctions from all the authorities concerned before, commencing the construction activities (Padhi, 2016). The followings are the required approvals and sanctions for pre-construction building approval procedure in India: (i) Land title clearances and land clearances (ii) Zonal clearances from the local authority (iii) Service and utility clearances (iv) Building approval for the layout plan and the building plan (Padhi, 2016).

According to the United Kingdom building approval requirements there are several approvals needs to be taken by the project proponent to commence the construction works as follows; (i) Planning permission (ii) Health and safety clearances (iii) Environment consents iv) Other approvals/ clearances; Mining or working of minerals,

Highway works licenses, River works, Emergency services, etc. v) Building regulation approval (Designing Buildings wiki, 2020).

According to Fernando, Perera, and Rodrigo (2017) following is the normal building approval procedure in Sri Lanka for the pre-construction period: (i) Obtain the clearances from the relevant authorities (ii) obtaining the preliminary approval from the Urban Development Authority (UDA) / local authority (iii) obtaining the approval for starting the constructions with the concurrence of the local authority level technical persons like; technical officer, planning officer, etc. (iv) obtaining the development permit from the local authority or UDA.

For the tourism investment projects, SLTDA established a new unit to assist potential investors who are willing to investing in the Sri Lankan tourism sector, and from this unit, it does all the coordination part on behalf of the project proponent side (SLTDA, 2011). The One Stop Unit mainly provides its service for the hotel and guest house projects to get pre-construction approvals from various line agencies (USAID sail project, 2018). Figure 2.2 shows the actual path of the pre-construction approval process for hotel projects in Sri Lanka.

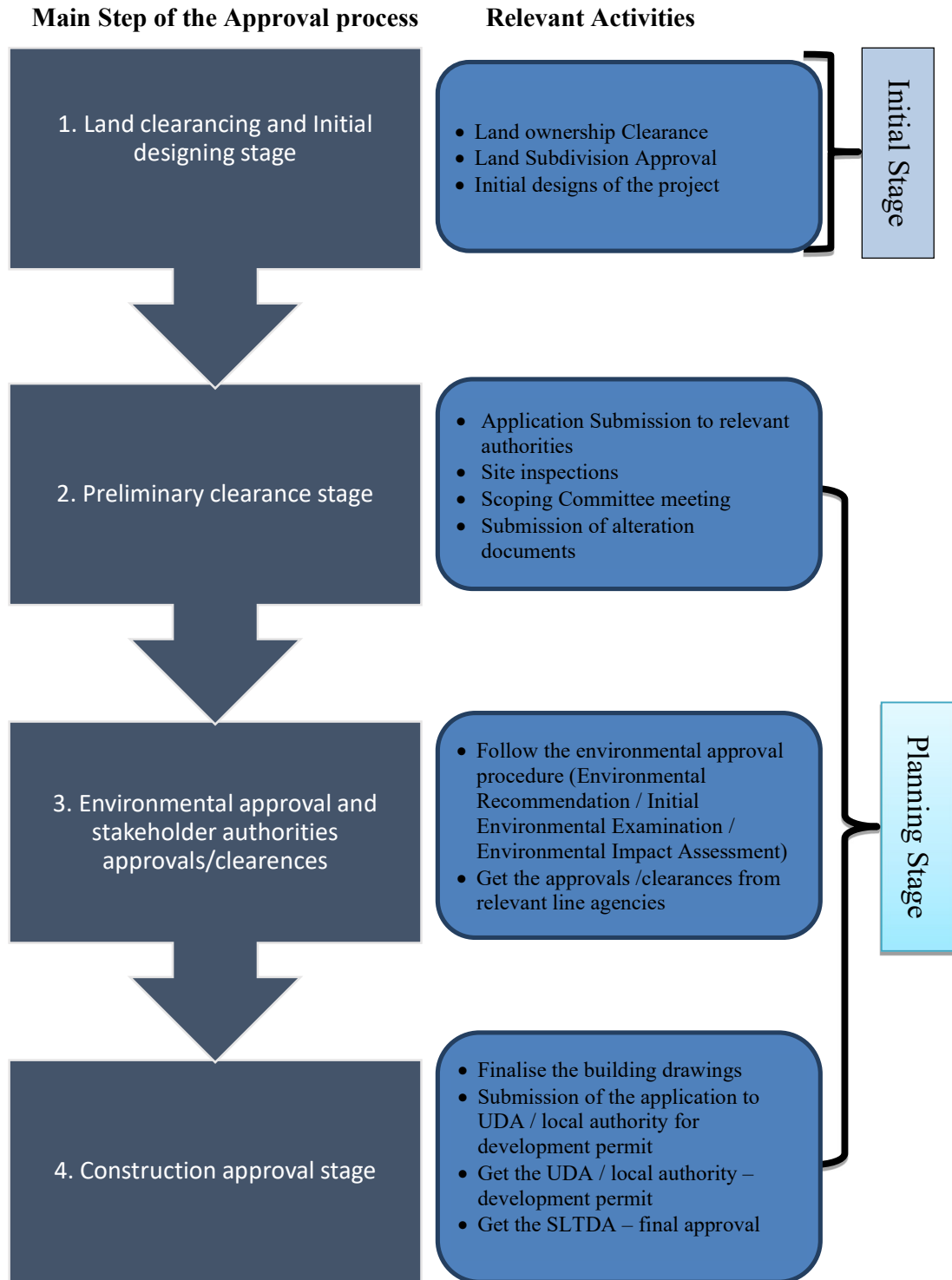


Figure 2.2: The pre-construction approval process for tourism projects in Sri Lanka  
 Source: Sri Lanka Tourism Development Authority – One Stop Unit

## **2.5. Steps of pre-construction period approval process of the hotel project**

This section discusses the steps of the pre-construction period approval process of the hotel project the briefly explains the approval process of each step.

### **2.5.1. Land clearance**

According to Fonseka (2010), there are both state and private land can be identified in Sri Lanka. Several forms of documentation need, to get the state land for the development activities and it can be done through land permits or government grants or deeds (Fonseka 2010). For the people who need state land for any developments, permits are issued by the relevant Divisional-Secretaries, and to get the deliberate legal ownership, most of the permit(license) holders apply to the Land Commissioner to be converted the permits to grants or deeds (Fonseka 2010).

In Sri Lanka, deeds are used to verify the ownership of private land, which is registered in the particular land registries of the area (Fonseka 2010). The Registration of Title Act of 1998 provides for the investigation and registration of title to land parcels and also the regulation of land transactions (Fonseka 2010).

In India, the project proponent needs to get the title clearance for the land and it allows a project proponent to get the idea on the chain of owners, transfer history and check any dispute on the ownership of the property (Padhi, 2016). It ensures that the land has legal clearances to commence the project work (Padhi, 2016).

### **2.5.2. Preliminary clearance**

After the land clearance process, as per Fernando et al. (2017) before the preliminary clearance, the project proponent needs to obtain clearance from the relevant authorities and accordingly need to be taken the land subdivision approval, street line certificate, and building line certificate.

For the preliminary clearances, the applicant or organisation needs to apply along with the project concept to the local authority or UDA to find project suitability according to the planning and zoning guidelines. The existing process for preliminary clearance from UDA or local authority is shown in Figure 2.3 (Leelananda, Wijesekera & Peiris 2008).

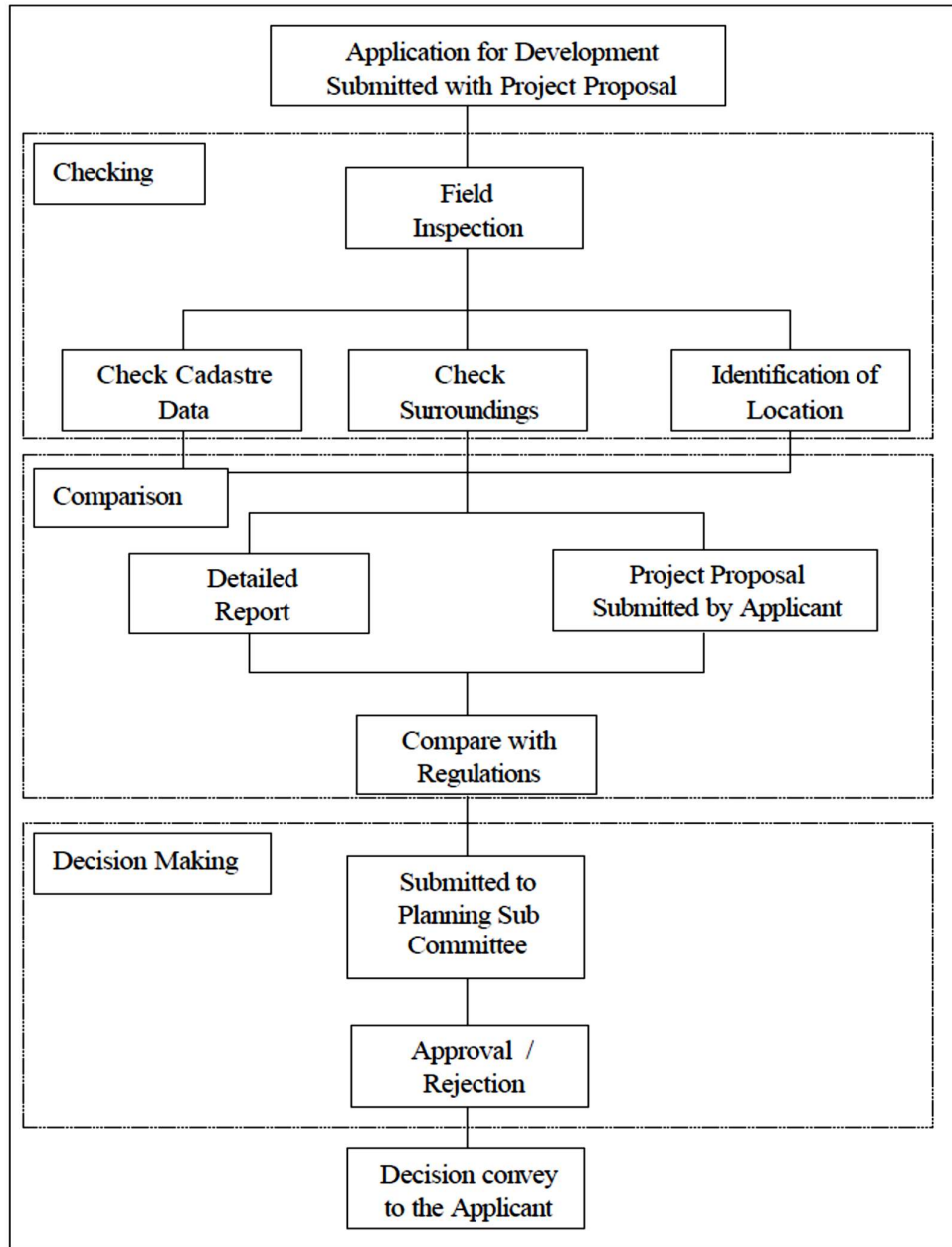


Figure 2.3: Preliminary clearance process in Sri Lanka

Source: *Leelananda, Wijesekera & Peiris (2008)*

With the application submission to the UDA, they do the site inspections and then evaluate the project proposal with the UDA guidelines, then if the project proposal fulfill the requirements, it will be submitted to the planning committee.



### **2.5.3. Environmental approval process and stakeholder authorities' approvals/clearances**

Considering the international context according to Padhi (2016) in India, after getting the local council preliminary clearance, the project proponent needs to get consent from relevant authorities as per the requirement of obtaining case-specific approvals/clearances before taken the building approval. In India for large-scale construction projects, along with the environmental approval project proponent need to take nearly 50 approvals before the building permit (Tupe, 2019).

After obtaining the SLTDA and UDA preliminary clearances to complete the pre-construction approval process of the hotel project, it needs to get several approvals from several line agencies as follows (USAID sail project, 2018);

- Central Environmental Authority (CEA) – environmental clearance (Environmental Recommendation / Initial Environmental Examination / Environmental Impact Assessment)
- Coast Conservation Department (CCD) – permit for development activities within the Coastal Zone.
- National Building Research Organisation (NBRO) – land clearance and building structural certificate (large scale projects)
- Forest Department – land clearance
- Wildlife Department – clearance with the guidelines comply with Fauna and Flora Protection
- Fisheries Department - clearance with the guidelines fulfill with fishery activities
- Irrigation Department – clearance for the reservation of the water bodies and rivers.
- Mahaweli Authority - clearance for the reservation of the Mahaweli water bodies leasing of the Mahaweli lands for the development projects.
- Archaeological Department – land clearance and for the special project areas Archaeological Impact Assessment (AIA).
- Supporting infrastructure facility clearances (fire, water, and electricity)

The National Environmental Act (NEA), gave the main legal foundation for regulating and controlling the pollution and protection of the environment from any cause in a wide-rang. Thus, the subsequent part describes the legal and institutional framework in Sri Lanka for environmental management for the hotel construction project approval process (Hennayake, 2008).

Hennayake (2008) figure out that, environmental approval is one of the critical stages in the approval process. According to Central Environment Authority (2013), there are three (03) categories that can be identified for the environmental approval process due to the sensitivity and scale of the project; Environmental Recommendation (ER), Initial Environment Examination (IEE), and Environmental Impact Assessment (EIA).

With referring to National Environmental(Amendment) Act (2000), Environmental Impact Assessment (EIA) or Initial Environment Examination (IEE) procedures need to be followed for major development projects, and the following are the prescribed areas for the IEE or EIA;

- 100 m from the borders of or within any area declared under the National Heritage Wilderness Act No 4 of 1988
- 100m from the boundaries of or within any area declared under the Forest Ordinance
- Coastal zone according to Coast Conservation Act No 57 of 1981
- Any erodible area was declared with the Soil Conservation Act.
- Any Flood Area declared under the Flood Protection Ordinance.
- Any flood protection area declared under the Sri Lanka Land Reclamation and Development Corporation Act 15 of 1968 as amended by Act No 52 of 1982.
- 60 meters from the bank of a public stream as defined in the Crown Lands Ordinance and having a width of more than 25 meters at any point in its course.
- Any reservations beyond the full supply level of a reservoir.
- Any archaeological reserve, the ancient or protected monument as defined or declared under the Antiquities Ordinance.
- Any zone declared with the Botanic Gardens Ordinance.

- Within 100 meters from the boundaries of, or within, any area declared as a Sanctuary under the Fauna and Flora Protection Ordinance.
- 100 meters from the high flood level contour of or within, a public lake as defined in the Crown Lands Ordinance including those declared under section 71 of the said Ordinance.
- Within a distance of one (01) mile of the boundary of a National Reserve declared under the Fauna and Flora Protection Ordinance.
- Other than those areas, according to the sensitivity and scale of the project, relevant line agencies can decide the environment approval process as EIA or IEE.

According to CEA (2013), EIA/IEE procedure is executed over the selected Project Approving Agencies (PAA) directed by, Central Environmental Authority. The Project Approving Agencies have the managerial responsibility to guide the EIA/IEE for the relevant projects, issuing the approvals or rejection of the EIA/IEE.

Table 2.1: EIA/IEE process with major steps

	<b>Step</b>	<b>Time duration</b>	<b>EIA/IEE</b>
1	Screening (Determining whether an EIA / IEE is required for a project)	06 days	EIA/IEE
2	Scoping (Determining the scope of the EIA / IEE study and issuing of Terms of Reference)	14 days	IEE
		30 days	EIA
3	Preparation of the EIA / IEE report	No time limit and it's the responsibility of the project proponent.	EIA/IEE
4	Review of the EIA / IEE report (Public and Technical review)		
4a	Public review (The project proponent needs to respond to the public comments received.)	30 working days	EIA
4b	Technical review	21 days	IEE
		30 days	EIA
5	EIA / IEE Decision Granting approval with terms and conditions or rejection with reasons.	No time limits (generally, 2weeks)	EIA/IEE

Source: EIA Procedure in Sri Lanka, [www.cea.lk](http://www.cea.lk)

Referring to the above Table 2.1, for the IEE process, it was taken a minimum of 45 days and the EIA process normally took 120 days. For this calculation, it is not taken the period for the IEE/EIA report preparation and submission into consideration. With the report preparation and submission minimally, it will be 90 days for IEE and 180 for EIA (USAID sail project, 2018).

#### **2.5.4. Construction (Building) approval stage**

According to the planning act Queensland (2016), concede about the construction (building) approval, it should be obtained before commencing construction works and construction approval is issued by the local government authority with evaluating the project. Padhi (2016) said that, in India, building approval issuing by the local authority with the provision of the local authority act, area master plan, and building

bye-laws. this approval consists of the approved building plan and layout plan of the proposed construction (Padhi, 2016).

According to the USAID sail project (2018), in Sri Lanka, all the approvals and final drawings, the project proponent needs to submit to UDA or Local Authority for the construction approval. For this process, UDA or Local Authority minimally takes two (02) weeks. Lastly, the project proponent needs to get the final approval for the hotel construction projects from SLTDA and it also normally takes one (01) to two (02) weeks. After that, only the project proponent can be commencing the construction of the hotel project (USAID sail project, 2018).

According to the USAID sail project (2018), the tourism hotel project's pre-construction approval process existing average takes 159 days to complete the total pre-construction process (without land clearance process). Accordingly, for the preliminary planning clearance, it takes 59 days and for the development permit stage, it takes 100 days. Figure 2.4 illustrates the whole process of the pre-construction approvals for the tourism hotel construction projects, with the steps.



Figure 2.4: Pre-construction period approval process for hotel construction projects in Sri Lanka

Source: <https://sltda.gov.lk/unit-for-national-investment-in-tourism> (2019)

Figure 2.4, shows the whole process of the pre-construction stage approvals of the hotel construction project in Sri Lanka. It can be identified as the main path of the approval process and the environmental approval process path. The environmental approval process will be part of the main approval process but it consists of a complicated path for EIA and IEE approvals. Altogether there are eleven (11) steps (including the environmental approval process) need to be followed by the project proponent to complete the pre-construction stage approval process.

## **2.6. Delay in the construction industry**

In the construction industry, “delay” refers to something happening at a later time than planned, expected, specified in a contract, or beyond the date that the parties agreed upon for the delivery of a project (Pickavance, 2005). By referring to Faridi and El-Sayegh (2006), a delay is considering as one (01) of the most unpredictable difficulties in the construction sector. Delays destructively affect all of the stakeholders like; project proponents, design, and construction professionals, (Faridi & El-Sayegh, 2006).

## **2.7. Causes of delays**

Ahmed et al. (2003) figure out that, due to several causes effected delays in the construction industry and it can be grouped into two (02) categories as (i) Internal causes and (ii) External causes. Internal causes arise from the parties to the project proponent (e.g. Project proponent, contractor, and consultant), and external causes, come from the actions beyond the control of the project proponent like government actions (Ahmed et al., 2003).

## **2.8. Causes of delays in pre-construction period approval process**

The Scottish Government decided to investigate the reasons for delays in planning decisions on the housing approval process and the purpose of the research was to identify and investigate the reasons for delays, applying for the housing approval process (Scottish Government, 2018). The study started with data collecting and analysing information from the planning portal for each application. This research

identified common causes for delay when deciding planning applications for housing. Percentage of causes of delays in the application submitted for the housing approvals process, are shown as follows (Scottish Government, 2018); (i) Delayed response by the applicant to additional information requests (55%), (ii) Legal agreement signings or drafting process (53%), (iii) Delayed action or response by the officers (48%), (iv) Delays with planning authority availability (11%), (v) Delays in committee decisions (07%), (vi) Applicant asked for delays in decision making (02%), (vii) Delays in the response of statutory consultants (01%).

According to Faridi and El-Sayegh (2006), construction delay in the construction industry is one of the most critical issues in the construction industry in the United Arab Emirates (UAE). Accordingly, they collected the information from professionals in the UAE construction industry, through the detailed questionnaire and analysed the data to rank each cause with its importance (Faridi and El-Sayegh, 2006). With the research findings of Faridi and El-Sayegh (2006), there were ten (10) most critical causes of delays can be recognised out of 44 causes in the UAE construction industry. Those reasons were related to each stage of the project cycle and the followings were the most critical causes of delays related to the pre-construction phase approval process and the overall rank of each cause shows with it (Faridi & El-Sayegh, 2006); (i) Preparation and approval of drawings (01), (ii) Insufficient initial planning (02), (iii) Delays in the decision-making process of the client (03), (iv) Obtaining clearances /approval from the several government authorities (09).

According to Tafazzoli and Shrestha (2017), delays in construction projects are a world-wide problem and it negatively affects many economies. Tafazzoli and Shrestha (2017) did the survey to assess the criticality of potential causes of construction delay in the United States of America (USA) and there were 30 causes of construction delays identified and according to the criticality of each cause of delay, they listed out the causes. The followings were the most critical causes of delays (among the 30 causes) in the pre-construction period approval process with the criticality ranking out of the top ten (10) causes; (i) Delaying with the decision-making process of the project owner (02), (ii) Design faults (03), (iii) Document/ designs approving delays by owner (04),



(iv) Delay in getting permits and acquisitions (07), (v) Delay in providing the design documents by the designers (09).

Kumaraswamy and Chan (1998) researched “Contributors to construction delays in Hong Kong” and the following causes were identified with data analysing of the responses such as clients, consultants, and contractors which were related to the pre-construction period approval process; (i) Delays in design data, (ii) time taken for drawing approvals (iii) Errors and inconsistencies in design documents, (iv) Insufficient design team knowledge, (v) Lack of communication between client and consultant, (vi) Client-initiated variations, and (vii) Deficiencies in planning and scheduling at preconstruction stage.

According to the Ministry of urban development (2016), general for any type of infrastructure development project, it needs to be taken several clearances and approvals. According to the World Bank (2013), among the 189 countries, India got the 183<sup>rd</sup> possession for handling the construction permits. 37 approvals are dealing with an average of 162 days to complete the pre-construction period approval process (World Bank 2013). Therefore, it shows significant evidence that the pre-construction approval process is time-consuming, and projects regularly get delayed due to delays in obtaining approvals from several government institutions.

According to Jeyakanthan and Jayawardane (2012), the greatest number of foreign-funded projects in Sri Lanka, such as building and civil engineering projects are getting delayed, it subsequently affects the increased project cost. This study focused to do the integration to analyse the projects through the project life-cycle from beginning to the end, mostly focusing on the sequence of effects of the factors causing delays (Jeyakanthan & Jayawardane, 2012). Following are the main causes which identified within the initial stage and planning stage; (i) Unclear conditions and specifications in contract documents, (ii) Decision making delays by the consultant or client, (iii) Delays with the land clearances, (iv) Delays in obtaining clearness from institutions (v) Owners’ delays on the decision making situations (vi) Faults in surveying (vii) Insufficient and imperfect feasibility studies, site investigations, and (viii) Communication gap between stakeholders.

According to Chandrasoma (2011), delays are common for all types of construction projects and due to the fault of the client, architect, contractor and other stakeholders those delays are occurring. The followings are the main causes of delays which identified in this study, related to the pre-construction period of the construction projects; (i) Poor planning and scheduling, (ii) Delay with the getting clearances (iii) Design shortfalls, and (iv) Decision making delays by the client (Chandrasoma, 2011).

Dolage and Perera (2009) did the study on “delays in the pre-construction stage of government sector building projects” and mainly in that research focus on the causes of delays that were directly linked with the project proponent side. Therefore, for the research, collect the data only from clients, consultants, and contractors and through this research, it can be identified the most important causes of delays in the pre-construction stage of government sector building projects as follows; (i) Inclusion of detailed for the design process, (ii) Delays of the client to approve the designs (iii) Alternative conceptual proposals, (iv) Description of the scope of work of a consultant, (v) Submission of the most suitable conceptual proposal, and (vi) Assessment of the availability of services (Dolage and Perera, 2009).

As per Fernando et al. (2017), throughout the pre-construction approval process, the project proponent needs to face several difficulties in obtaining the pertinent clearances or approvals from the different departments. most of the building approval process coordinated by the local-level authorities and the following causes of delays can be identified within the approval process; (i) Because of the inadequacy of qualified professionals, approval process getting delayed, (ii) Unmanageable workload for the local authority level institutions, (iii) Political involvements for the building approvals in local authority level effect on the efficiency of the process and the quality of the products (Fernando, et al., 2017).

Table 2.2 – Summary of the identified causes of delays in the pre-construction approval process

Cause of delay	Research reference
Delays in obtaining permit/approval from the municipality/different government authorities	[1], [2], [3], [4], [5], [6], [7]
Delays in the owner’s decision-making process	[1], [2], [3], [4], [6], [8]
Delay in providing the design documents by the designers	[1], [2], [3], [4], [8]
Design errors, and discrepancies in design documents	[1], [3], [6], [8]
Lack of communication between client, consultant, and line agencies	[3], [4]
Inadequate early planning of the project	[1], [6]
Delayed response by the applicant to additional information requests	[9]
Legal agreement signings or drafting process	[9]
Delayed action or response by the officers	[9]
Delays in committee decisions	[9]
Applicant asked for delays in decision making	[9]
Delays in the response of statutory consultants	[9]
Delay in approving design documents by the owner	[2]
Inadequate design team experience	[3]
Deficiencies in planning and scheduling at the preconstruction stage	[3]
Delays in land clearances	[4]
Inadequate and incomplete feasibility studies, site investigations	[4]
Various approvals/clearances from several institutions	[5]
Inadequacy of qualified professionals in government institutions	[7]
[1] Faridi and El-Sayegh (2006); [2] Tafazzoli and Shrestha (2017); [3] Mohan, Kumaraswamy, Daniel and Chan (1998); [4] Jeyakanthan and Jayawardane, (2012); [5] Ministry of Urban Development - India, (2016); [6] Chandrasoma, (2011); [7] Fernando, Perera, and Rodrigo (2017); [8] Dolage and Perera (2009); [9] Scottish Government (2018)	

## **2.9. Recommendations and strategies to minimise the delays in the pre-construction period approval process**

According to Kushal, Panchariya & Bhangale, (2017) adoption of a single approval process or facilitation window system is an effective tool for ensuring a fast approval process. This system has been very effectively used in India by the Ministry of industrial policy and development to expand the investment environment by upgrading the "ease of doing business" in India and 'single window process' can be executed in various forms as follows (Kushal, et al. 2017); (i) Appoint the coordination agency or coordination officer for every project, (ii) With linking all pertinent institutions with using the technological platform, which performs like a single-window process, (iii) Enacting 'one-stop system' legislation that extends from nodal institution concept to comprise other mechanisms such as authorised committees, (iv) Using the authorised committees incorporated with all relevant line agencies to accelerate the approval process. According to Kushal, et al. (2017), the advantage of implementing technological platforms at the state level and local government departments is connected through the strong technical support and all project applications and approvals process in the on-line platform, therefore it is giving the authorisation to strength technology to expedite approvals.

Kushal, et al. (2017) finds that combining and streamlining the building approval related laws at national and local levels to identify the overlapping areas and contradicting laws and regulations of each line agency and streamline the all process of approval with inter-agency coordination. Streamlining the process can be done by examining each pre-construction period approval process of every line agency with the following steps (Kushal, et al. 2017); (i) Remove duplication or unnecessary approvals, activities, and documentation, (ii) Simplify the approval process by clearly stating the applicable rules and regulations, (iii) Any possible activity within the approval process organise with the automation process, (iv) Delegate the activities and power with local-level authorities.

One of the key issues in the project approval process is the uncertainty through continuously changing requirements of documents and interdependencies online

agencies and accordingly with the clear procedure and timeline, it leads to project proponent, to approaching the correct path without going to various departments multiple times (Kushal, et al. 2017).

According to Tafazzoli and Shrestha (2017) following suggestions can be identified to minimise the pre-construction stage approval process delays; (i) Get the service of designers/consultancies with adequate experience in the relevant category of target project, and prominent designers for more complex and large scale projects, and (ii) Permitting adequate time and resources to complete the design and feasibility studies without forcing to meet the unrealistic timelines.

According to Ahmad, Ahmad, and Arbi (2011), Malaysia, delays in obtaining government approvals for land development are one of the critical issues. As a solution for that issue, Housing and Local Government ministry introduced the One Stop Centre (OSC) concept for all local authorities in Malaysia and it effected to expedite the government approval process. The main purposes of the OSC are (i) Reduce the period for the approval process, (ii) Coordinate with the project proponent for planning approvals, building plan approval, and land approvals like land conversion, land subdivision, and land amalgamation; with the main objective (Ahmad, Ahmad, and Arbi, 2011).

According to the ministry of urban development (2016), to facilitate the investor for getting the pre-construction period approvals they introduce the following procedures; (i) Get the clearances at the master plan level - preparation of the composite map of the area with several guidelines and regulations as per the several institutions and marked those parts on the map. Accordingly, the places which are located outside these restricted/regulated areas would not need clearance from the corresponding authorities, so it will significantly reduce the approval period, (ii) Introducing online permission for issuing clearances and approvals, (iii) Empowering knowledgeable professionals – on behalf of the project proponent they can submit the documents requirements at the time of various clearances, (iv) Outsourcing procedures – appointing the authorised firms to undertake the approval works on behalf of Authorities, (v) Creating specialised units within the authorities to provide the

awareness on the approval procedures and the clarifications of development regulations, and (vi) Single window structure with online clearance process – integrated the all line agencies with one electronic platform with proper coordination and monitoring of approval process timelines.

As said by the Australian Trade Commission (2015), it needs to give proper direction and information for project proponents by the government as follows; (i) Appropriate information on followings, and (ii) Assist project proponents to identified clear path; Information on Government environmental approval processes. According to the Australian Trade Commission (2015), complex policy areas, guidelines and general information on the approval process should be highly accessible to project proponents and it should be comprehensive and in other hand approval process maps, outlining the general approvals processes need to develop for the complex process.

For the lower risk developments, there should be an accelerated path to get the approvals and executing a ‘fast track’ development approval process for low-risk projects. Another critical recommendation in this report is One-stop shop reforms for environmental approval processes and accordingly, it helps to remove duplication in approvals processes and support many tourism accommodations projects in the country (Australian Trade Commission, 2015). Better use of the pre-approved process for relevant tourism related constructions have the potential to reduce project costs and its effect to give the case study for future projects as well.

According to Jeyakanthan and Jayawardane (2012), the project proponent should re-visit the time frame and the cost estimate for the feasibility studies, and other clearances/approval processes. Jeyakanthan and Jayawardane (2012) recommended that the environmental approval process needs an on-site evaluation for all projects and a minimum of two (02) of those site-visits for complicated and large-scale projects. Stakeholder management plays one of the critical roles in the process of identifying the scope of the project, and launching a communication plan is highly recommended to keep every stakeholder informed on the project developments and it will be minimising the conflicts between the project team and stakeholders (Jeyakanthan & Jayawardane 2012). At the final stage Jeyakanthan and Jayawardane (2012), suggested

to have a Geographic Information System (GIS) for the whole country and record all the relevant geotechnical study information on every project in detail and have a fully integrated Management Information System (MIS) with all geographical information such as project data, screening, and modules on feasibility studies.

Dolage and Perera (2009) propose the common process diagram for the pre-construction stage of government sector building projects by analysing the factors of delaying the process. Moreover, Dolage and Perera (2009) proposed the checklist for the design process and it can be used by the consultants and also by the project proponent.

According to USAID sail project (2018), it gives the following recommendations to minimise the delays in the approval process of the tourism projects; (i) re-engineer and streamline the investment approval process with a new set of internal processing tools and protocols to fast track an application, and with processing timeframes and investor's supporting documentation, and (ii) Coordinating line agencies need to enter into Memorandum of Understandings (MoU) with other relevant agencies who provide inputs or approvals into the investment approval process and the MoU's are intended to set out the terms and conditions of the working relationship between line agencies.

USAID sail project (2018) recommended prepare a communication plan and it will be a comprehensive communication plan for the implementation of the investment approval process for tourism construction projects. It includes needing to be with a new investment guide for tourism investors, updating the line agencies' websites, and developing a new investment approval process (USAID sail project, 2018).

Referring to Fernando et al. (2017), with the suggestions made by the stakeholders' followings are the proposals to minimise -pre-construction approval process delays; (i) Establishment of the one-stop unit to coordinate the all the process through the one line agency, (ii) Appoint the qualified professionals to approve each stage of the approval process, and (iii) Give the authority to continuously monitor the process. Table 2.3 shows the summary of the identified recommendations and strategies.

Table 2.3 – Identified recommendations and strategies to overcome the causes of delays in the pre-construction approval process

<b>Recommendations and strategies to overcome the causes of delays in the pre-construction approval process</b>	<b>Research reference</b>
Adoption of a single approval process or One-Stop Center (OSC) or Single facilitation window	[1], [2], [3], [4], [5]
Implementing technological platforms at the state level and connect the local government departments	[1], [6]
Appoint the qualified professionals to approve each stage of the approval process	[4], [7]
Establishing a communication plan to keep all the stakeholders informed on the project developments	[8], [9]
Combining and streamlining the approval related laws at national and local levels	[1]
Get the service of qualified professionals to complete the design and feasibility studies	[10]
Get the clearances at the master plan level	[7]
Introducing the online permission for issuing clearances and approvals	[7]
Appointing the authorised firms to undertake the approval works on behalf of authorities	[7]
Creating a specialised unit within the authorities to provide the awareness	[7]
Give the authority to continuously monitor the approval process.	[4]
Providing appropriate information for the investors to identify the clear path of the approval process.	[5]
Introducing the Geographic Information System (GIS) for the whole country with all the relevant geotechnical study information on every project.	[8]
Fully integrated Management Information System (MIS) with all geographical information of the projects and line agencies.	[8]
Re-engineer and streamline the investment approval process	[11]
[1] Kushal, Panchariya, and Bhangale (2017); [2] Ahmad, Ahmad, and Arbi, (2011); [3] Ministry of Urban Development (2016); [4] Fernando, Perera and Rodrigo (2017); [5] Australian Trade Commission (2015); [6] Dolage and Perera (2009); [7] Ministry of Urban Development (2016); [8] Jeyakanthan and Jayawardane (2012); [9] USAID sail project (2018); [10] Tafazzoli and Shrestha (2017); [11] USAID sail project (2018)	



## **2.10. Summary**

The literature review mainly focused to recognise and study the following main areas to proceed with the research. Accordingly, the literature review firstly focuses on the tourism sector and hotel construction projects. With the hotel projects it can be identified main phases and, in the literature, it detailed the two phases of the initial phase and planning phase because research deliberate only on the pre-construction period. Then research focused on the path of the pre-construction approval process of construction projects at the international level as well as the local level. After that, it conceded about the causes of delays related to the pre-construction approval process within the international and local context. Finally, research focussed on the recommendations and strategies given by the various researchers and institutions to overcome the causes of delays in the pre-construction period approval process.

### 3. RESEARCH METHODOLOGY

#### 3.1. Introduction

This chapter describes the methods used to carry out this research. Accordingly, chapter three (03) discusses the research design, sample selection, data, collection methods, and data analysing methods.

#### 3.2. Research design

According to Creswell (2014), research the design is a set of approaches and measures using to gather, analyse and measure the variables which are identified in the research. With the research design, it describes the study type (descriptive, correlative, semi experimental, experimental, and meta analytical), subtypes, research problem, and hypotheses, independent and dependent variables (Creswell, 2014). Other than that, data collection methods and a statistical analysis plan need to be included in the research design and it is a framework and it created a way to find answers to research questions (Creswell, 2014).

#### 3.3. Research approaches

For any research, it needs to follow one of the research approaches from the following three (03) approaches; (i) qualitative approach, (ii) quantitative approach, (iii) mixed approach (Creswell, 2014). This research is developing through the mixed approach because that approach is the incorporation of a qualitative approach and quantitative approach and it delivers a more complete understanding of a research problem than either approach alone. Research mainly uses a qualitative approach (base on case studies and structured interviews) together with a quantitative approach (simple mathematical calculation for the secondary data analysis) and therefore it can be identified as a mixed approach and the following section discusses on mixed approach.

### **3.3.1. Mixed approach**

The mixed approach contains the use of over one (01) technique of data collection or examination in research study, or a series of related studies. Mixed approach method research is a mixing of qualitative and quantitative data or methods in a research study, or a series of linked studies (Creswell, Fetters and Ivankova, 2004). This research also using qualitative data (primary data as causes of delays related to the pre-construction approval process of the hotel construction projects – through the case studies base structured interviews) and quantitative data (secondary data on actual versus expected time durations of the selected case studies) which are related to the pre-construction approval process of the hotel construction projects and causes of delays relevant to that process.

### **3.4. Research strategies**

A research strategy is an organised process to resolve the research problem (Badke, 2012). The following are the main types of research strategies commonly used in researches: (i) Case study, (ii) Qualitative interviews, (iii) Quantitative survey, and (iv) Action-oriented research (Cameron & Price, 2009). This research mainly focuses on the case study base research strategy and the following section briefly explains on case study method.

#### **3.4.1. Case study method**

According to Yin and Robert (2013), a case study is one of the research methods used to do the critical, and detailed investigation of a specific case. Accordingly, a case study can be approximately any element of analysis, including individuals, organisations, or actions. Case study research can be done as a single case or multiple-case studies and also it can be including quantitative evidence, depend on multiple sources of evidence, and benefits from the prior development of theoretical propositions. In this research, it uses multiple-case studies involving both qualitative and quantitative research methods (Yin & Robert, 2013).

### 3.5. Target population

The population is a shared or total of all the objects, subjects, or members conform to a set of specifications (Polit & Hungler, 1999). The target population is the entire population or group, which is a researcher who is interested in researching and analysing, and before commencing the research, the target population needs to be identified. A sampling frame is then drawn from this target population (Polit & Hungler, 1999).

According to SLTDA (2019), in 2011, SLTDA introduces the unit called “One Stop Unit (OSU)” to facilitate the investors to get the approvals from the other line agencies and to comply the project with the SLTDA guidelines to minimise the time and cost factors of the tourism projects. Through that division, SLTDA coordinates the investor and line agencies to get the approvals on behalf of the investor and up to 31<sup>st</sup> June 2019, OSU received 865 projects from several investors in several categories. Accordingly, SLTDA granted the final approval to commence the construction works for 376 projects. Details of the projects shown in Table 3.1;

Table 3.1: One-Stop Unit projects categorisation

<b>Item</b>	<b>Total up to May 2019</b>
To be inspected	08
Under process	340
Rejected & on hold	105
<b>Final approval granted</b>	<b>376</b>
<b>Total number of projects</b>	<b>829</b>

Source: SLTDA One Stop Unit Monthly Report, 2019

According to Table 3.1, the total number of final approvals granted projects (376) can be taken as a population of this research, because according to the research aim and objectives it needs to study the causes of delays in the preapproval process and for that, the project needs to be finished its pre-construction approval process.

Out of that total final approval granted project count of 376, there are 43 projects are consisting of 100 or more rooms. That hotel projects mainly concede as large-scale projects and according to the scope of research, that 43 projects take as the target population for this study.

### 3.6. Data Sample out of the final approval granted projects

According to Polit & Hungler, (1999), a sample is defined as a smaller set of data that is selected from a larger population by using a predefined selection method, and these elements are known as sample points, sampling units, or observations. Generating a sample is an efficient method of researching as in most cases, it is impossible or very expensive and time-consuming to research the whole population, and therefore researching the sample delivers understandings that can be applied to the whole population (Polit & Hungler, 1999).

Accordingly, out of 43 projects which got the final approval and consist of more than 100 rooms, five (05) projects select as a research sample due to the scope and limitations of this research. Table 3.2 shows the frequency of the above mention 43 large scale hotel projects within each province of Sri Lanka;

Table 3.2: Final Approval granted large scale projects frequency within the provinces

	<b>Province</b>	<b>Number of projects located within the province</b>	<b>Number of case studies selected from the province</b>
1	Western	22	02
2	Southern	15	02
3	Central	03	01
4	Other provinces	03	-
	<b>Total</b>	<b>43</b>	<b>05</b>

*Source: SLTDA One Stop Unit Monthly Report May - 2019*

Selection of the five (05) cases, the geographical location of the project (provincial vice), accessibility for the primary, and secondary data are mainly considered. The accurateness of data mainly depends on the data collection tools in terms of validity

and reliability (Mugenda & Mugenda 2003). Accordingly, data from the relevant government institutions as secondary data were collected first and then collected the response from at least two (02) stakeholders from each project as primary data sources to ensure the validity and the reliability of the data.

### **3.7. Data Collection methods**

The data collection stages of this research will be discussed in the next two (02) sub-sections and those consist of primary and secondary data collection methods.

#### **3.7.1. Primary data collection on the pre-construction approval process**

Primary data define as original and exclusive data collected by the researchers directly from the first-hand cause or study article, though secondary data define as data obtained by the author from published documents on the internet, journals, periodicals, or sites related to the research directed (Ajayi, 2017). Accordingly, using the interview method to get the information on causes of delaying the pre-construction stage of the hotel project as well as the strategies used to overcome the delays together with suggestions for future improvements to overcome the delays were captured through the primary data. Because an interview is a broadly used primary data collection method and the interviewer asks questions either personally or through mail/email or telephone from the respondents to obtain the insights of the problem under study. In this research, hotel construction projects were selected as cases and for the single project at least two stakeholders interviewed, because every data collects on cases need to be verified.

#### **3.7.2. Secondary data collection on the pre-construction approval process**

Data obtained by the published articles on the internet, journals, periodicals, or sites related to the study were conducted (Ajayi, 2017) identified as Secondary data. Accordingly, initially collect the secondary data from the SLTDA and other relevant line agencies about the time frame of the approval process for the pre-construction stage of the hotel projects (case studies) which completed the approval process. With the literature review, it can identify the causes of delays that are linking to the pre-construction approval process.

### **3.8. Data analysis**

This study mainly assessed the critical path of the approval process of the pre-construction period of the hotel projects and identify the causes of delays in those projects. The critical path of the approval process generally common for every project and therefore it concedes the independent variable and the requirements of each part of the critical path considers the dependent variable. In this study, firstly selected five (05) large scale hotel construction projects as case studies and evaluate each project's pre-construction stage approval process with its timeline comparison to the expected time duration. Accordingly, it can be identified the time variations (delays or surpluses) of each stage of each project.

The critical path analysing of this research, mainly considered the following sections; (i) Preliminary approval, (ii) Environmental approval process and other approvals, (iii) Final design stage, and construction approval process. Land clearance and initial process data were hard to collect and identify properly but if any issues related to the land clearance process, it can be identified with the other clearance process. Because every other clearance depends on the land approval process. This research mainly uses content analysis to analyse the qualitative primary data collection and the following section discusses the qualitative data analysing of the research.

#### **3.8.1. Content analysis**

According to Bryman (2011) content analysis is a process that studies documents, or communication objects, which may be texts of several formats, pictures, audio, or video. On the other hand, social experts use content analysis to study the patterns in communication in a systematic manner (Bryman, 2011).

##### **3.8.1.1. Within case analysis**

Doing the within-case content analysing, through the timeline comparison and interviewing the project stakeholders, it can be recognised the causes of delays in the pre-construction period approval process of which are directly related to respective cases. On the other hand, with the within-case analysis, it can be identified the

recommendations/solutions to overcome the causes of delays in the pre-construction approval process for the respective case.

### **3.8.1.2. Cross case analysis**

After identifying the causes of delaying and recommendations/solutions for each project, it can be developed cross-case analysing. Comparing one project with other projects leads to identifying the common causes of delays in the pre-construction approval process and also can reveal the recommendations or solutions for identified common causes of delays.

### **3.9. Summary**

For this research, the case study method mainly uses as a research method, and then through the primary and secondary data collection, collect the data for analysis. In this research, the within-case analysis and the cross-case analysis can get the final output.



### 4. RESEARCH FINDINGS AND DISCUSSION

#### 4.1. Introduction

This chapter mainly concerns with the data collection procedure, analysis of the data, and discussion of research findings. Secondary data were collected from various documents as recorded by different authorised organisations and case-specific data were collected as primary data from the responsible professionals from each project. The analysis presents the causes of delays which are effect to pre-construction period approval process.

#### 4.2. The expected time duration for the critical path of the pre-construction period approval process

According to the literature review findings, it was possible to identify the critical path of the large-scale hotel construction project approval process and the respective time duration for each stage in general. Accordingly, together with the IEE process pre-construction period approval process will take 180 days, and together with the EIA process pre-construction period approval process will take 270 days.

#### 4.3. Critical path evaluation with the time duration for case study projects

As discussed in Chapter 03, out of 376 projects which were completed the pre-construction approval process through the SLTDA up to 31<sup>st</sup> May 2019, 43 projects can be conceded as large-scale projects due to the number of rooms (more than 100 rooms) and total investment for the project (more than Sri Lankan rupees 500 million). Out of those 43 numbers of large-scale hotel construction projects, five (05) number of projects selected as case studies to find the reasons for delays in the pre-construction period approval process in the hotel projects and, following Table 4.1 shows the general details of aforesaid projects;

Table 4.1: Summary of the case studies

<b>Project Name</b>	<b>Location</b>	<b>Total Investment</b>	<b>Total Number of Rooms</b>
A	Gintota, Galle	Rs. 4005 Mn	178
B	Colombo	Rs. 2822 Mn	210
C	Panadura	Rs. 1800 Mn	176
D	Tangalle	Rs. 6300 Mn	176
E	Nuwara Eliya	Rs. 3681 Mn	135

Source: SLTDA One Stop Unit and Interview data

#### **4.3.1. Case A – located at Gintota**

Case A was located at Gintota in Galle district and it consists of 178 rooms and with a total investment of 4005 Million Rupees. Followings are the mainline agencies related with the pre-construction period approval process; (i) SLTDA, (ii) UDA, (iii) CCD, (iv) CEA, (v) Disaster Management Centre (DMC), (v) NBRO, (vi) BoI, (vi) Ratgama Pradeshiyasabha, (vii) Ratgama Divisional Secretariat.

Due to the scale of the project (over 100 roomed hotel project) and location (beachfront land) CCD conceded this project as a large-scale project and did the IEE process to fulfill the environmental approval process. One of the project proponents and the project architect have been selected as interweaves to get the information on the pre-construction period approval process.

#### **4.3.2. Case B – located at Colombo**

This project consists of 210 rooms and the total investment was 2822 Million Sri Lankan Rupees. The project was located within the core commercial hub of Colombo and because of it, this had less impact on the environment, but due to the scale of the project CCD decided to do the IEE process to complete the environmental approval process.

Followings are the mainline agencies which were related to the pre-construction period approval process; (i) SLTDA, (ii) UDA, (iii) CCD, (iv) Department of Archaeology, (v) DMC, (vi) Civil Aviation Authority (CAA), (vii) BoI, (vii) Colombo Municipal

Council, (viii) Colombo Divisional Secretariat. Project proponent and the project coordinator selected as interviewees for this case study.

#### **4.3.3. Case C – located at Panadura**

Case C, located in Panadura as beachfront property and it consists of 176 rooms and a total investment of 1800 million Sri Lankan rupees. Due to the sensitivity of the coastal environment and the scale of the project, as a project approving agency CCD decided to do the IEE for this project to get the environmental approval.

(i) SLTDA, (ii) UDA, (iii) CCD, (iv) BoI, (v) Panadura Urban Council, and (vi) Panadura Divisional Secretariat are the key line agencies for the pre-construction period approval process. Case related information gathered from one of the project proponents and the project manager as the interviewees.

#### **4.3.4. Case D – located at Tangalle**

Case D is located at Tangalle in the Hambantota district and it is a beachfront land with high terrain and consists of rich vegetation cover. Therefore, CCD decided to do the IEE process for this project by considering the environmental factor, the number of stakeholders, and the scale of the project (176 rooms).

There are several line agencies directly engaged with this pre-construction period approval process as follows; (i) UDA, (ii) CCD, (iii) SLTDA, (iv) NBRO, (v) Department of Fisheries, (vi) Tangalle PS, (vii) Tangalle DS. Project proponent and project architect selected as the interviewees for this project to collect the information of the pre-construction period approval process.

#### **4.3.5. Case E – located at Nuwaraeliya**

This project located in the Nuwaraeliya town area and its surrounding environment can be identified as a very sensitive area with rich biodiversity as well as geographical variations. Therefore, as a project approving agency, CEA decided to do the IEE process to get the environmental approval for this project.

According to the sensitivity and the scale of the project, there were several line agencies engaged with this project as follows; (i) UDA, (ii) CEA, (iii) SLTDA, (iv) NBRO, (v) DMC, (vi) Nuwaraeliya MC, (vii) Nuwaraeliya DS. Project proponents

and the project architect have been selected as interviewers to collect the information on the approval process.

#### **4.4. Evaluation of the causes of delays in case study projects**

To evaluate each segment of the critical path of the large-scale hotel construction projects pre-construction approval process, data were collected from the following sources; it was mainly focused to collect the data from the line agencies as secondary data sources which are directly engaged with the approval process. Given the document submission date for the relevant line agency and the approval or clearance granted date from the aforesaid agency, it can be calculated the actual time duration.

On the other hand, primary data were collected from persons who were engaged with the project throughout the total pre-approval process and the following are the main stakeholders for that; (i) Project proponent/client, (ii) Project architect, (iii) Project manager (iv) Project coordinator. Most of the time above persons have a clearer idea about the actual project approval and most of them (project Architect and project manager) have the technical knowledge of the approval process and the project design. Therefore, from these stakeholders, it was possible to get the details on the actual project period, causes of delays for the pre-construction approval process as well as the suggestions and recommendations to overcome such delays.

With the primary data collected from project stakeholders and secondary data collected from the line agencies, the actual time variation from the predicted time frame is shown in Table 4.2. The land clearance process and initial design stage time frame for the critical path are hard to identify in the analysing stage due to the barriers to the collection of reliable data on that stage.

Table 4.2: Summary of the expected versus actual periods of the projects with the percentage of variation from the actual time

	Critical path	Expected average time duration	Actual time period (days)				
			Project A	Project B	Project C	Project D	Project E
1	Land clearance process and initial design stage (rough time period only)	Cannot predict the common time period	06 months	03 months	05 month	10 - 12 months	06 months
2	Preliminary approval process	30 days	55 (183.34%)	54 (180%)	50 (166.67%)	24 (80%)	94 (313.34%)
3	Environmental Approval process and Other Approvals	90 days (IEE) 180 days (EIA)	344 (382.22%)	153 (170%)	144 (160%)	323 (358.89%)	318 (353.33%)
4	Final design stage and Construction approval process	60 days	23 (38.33%)	103 (171.67%)	76 (126.67)	139 (231.67%)	73 (121.67%)
	<b>Total Days for whole process*</b>	<b>180 days (IEE)</b>	<b>422 (234.44%)</b>	<b>310 (172.22%)</b>	<b>270 (150%)</b>	<b>486 (270%)</b>	<b>485 (269.44%)</b>

Source: SLTDA One Stop Unit

\*- land clearance process and initial design stage not included

#### 4.5. Actual time duration versus expected time duration

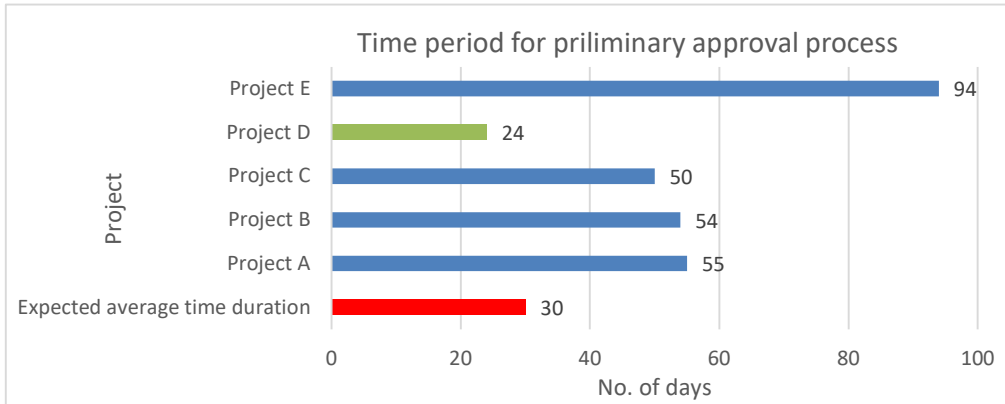


Figure 4.1: Expected period versus actual time for the preliminary approval process

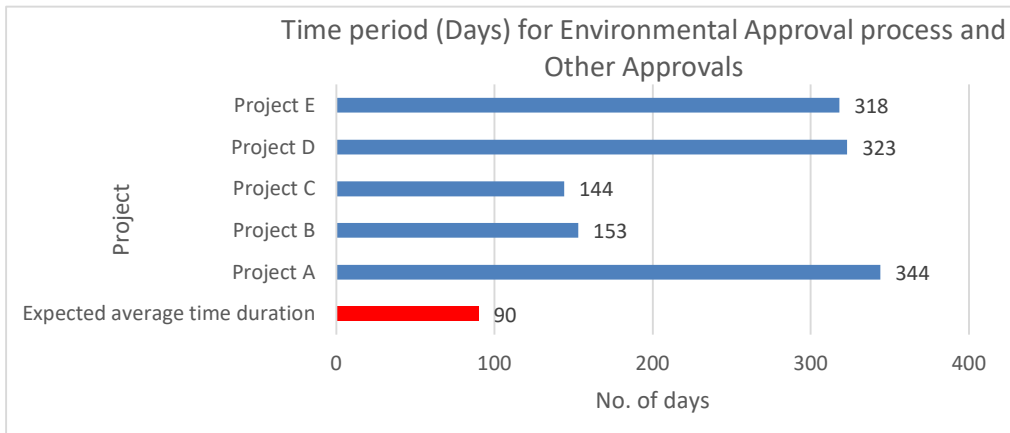


Figure 4.2: Expected period versus actual time for Environmental approval process and Other Approvals

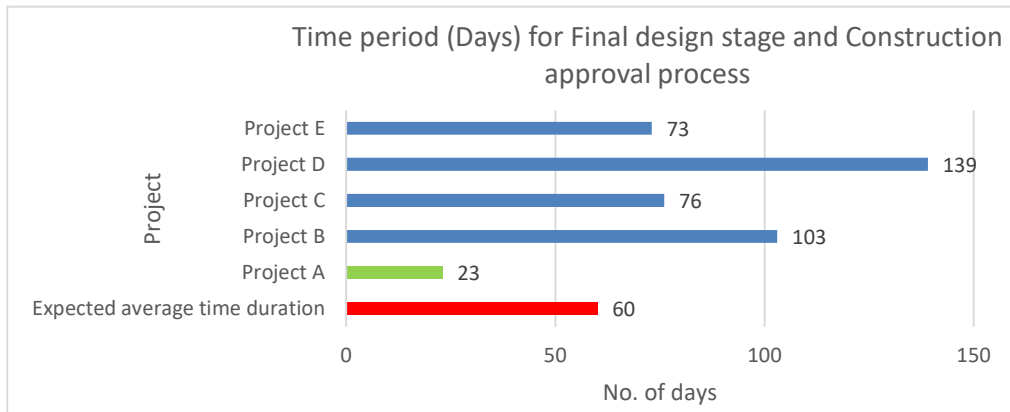


Figure 4.3: Expected period versus actual time for final design stage and construction approval process

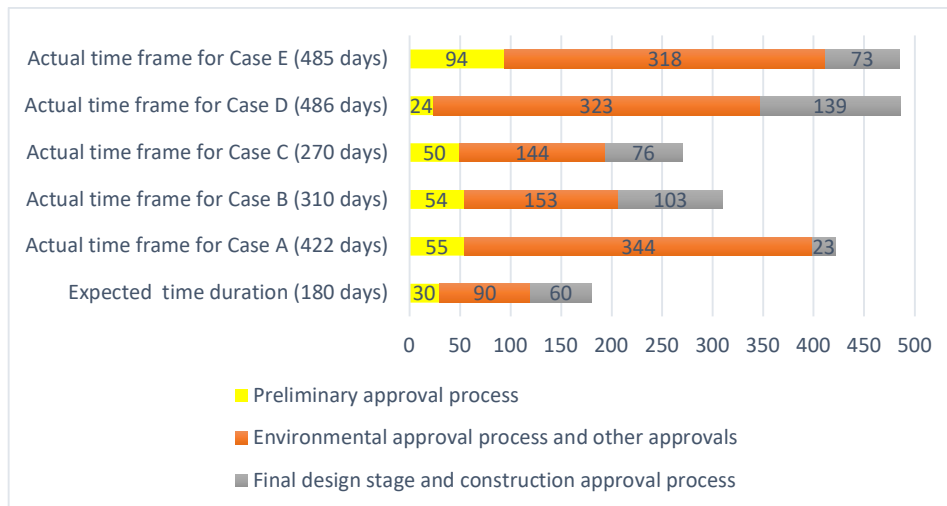


Figure 4.4: Expected period versus the actual time for the total pre-construction approval process

Figure 4.1 shows the variation of the actual time duration of the selected projects versus the expected time duration for the period of the preliminary approval process. Accordingly, except the project D, other all the projects were delayed in comparison to the expected time duration. Project D completed its preliminary approval process (24 days) before the expected time duration (30 days) but concede about Figure 4.4, for the total period of project D is about 486 days instead of the expected time duration of 180 days.

According to Table 4.2, every selected project’s pre-construction period time duration got varied from 150% to 269.44% in comparison to the expected time duration. With this analysis, it clearly shows the delay of the pre-construction period approval process of selected mega-scale construction projects.

According to Figure 4.3, all the projects were behind the schedule comparison to the expected time duration of 90 days for the Environmental Approval process and other approvals.

Figure 4.4 shows that Project A completed its final design stage and construction approval process within 23 days (expected time duration – 60 days) but when consider the total time duration for project A was 422 days and the expected period was 180 days.

**4.6. Identifying the possible “causes of delays effect on pre-construction period approval process” in each case and proposed suggestions to overcome the delays**

According to the summary of the selected projects (Table 4.2), it can be identified that all the five (05) selected projects were getting delayed with the comparison to the expected time duration. Accordingly, by interviewing the stakeholders from every project, it can identify the set of causes for delaying the project in each stage of the critical path. Consequently, it can be getting suggestions from the stakeholders to overcome such delays.

After interviewing the ten (10) stakeholders from those projects [two (02) from each project], can be identified project-specific causes of delays in the pre-construction approval process and also can be identified the mitigatory measures which were taken by them to overcome such delays, according to the stakeholder’s views. After evaluating those causes of delays in each project it can be identified, project-specific causes of delays, and common causes of delays for several projects. Table 4.3 shows the summary of the interweaves, who engaged with the respective case studies.

Table 4.3: Case study interviewers’ index

<b>Case</b>	<b>Location</b>	<b>Interviewer 01 (Index)</b>	<b>Interviewer 02 (Index)</b>
A	Gintota, Galle	Project Proponent (A1)	Project Architect (A2)
B	Colombo	Project Proponent (B1)	Project Coordinator (B2)
C	Panadura	Project Proponent (C1)	Project Manager (C2)
D	Tangalle	Project Proponent (D1)	Project Architect (D2)
E	Nuwara Eliya	Project Proponent (E1)	Project Architect (E2)



#### **4.6.1. Causes of delays related to case A**

Comparison to the total period of expected time duration (180 days), Case A took 422 days to complete the pre-construction approval process. For the final stage, Case A got only 23 days (expected was 60 days) but for the environmental approval and other approvals, it took 344 days instead of 90 days as expected. At the environmental approval and another approval stage, the project design team did the major correction for the final drawings simultaneous with the environmental approvals. Therefore, Case A took less time (only 23 days) than the expected time duration for the final stage approvals. With the stakeholder's views following causes of delays which are related to case A were identified;

- Delays in the land ownership clearance process - this cause did not directly impact the above actual time duration but it created a high impact on the total pre-construction approval process. According to A1, land title search, deed, or lease agreement registration with the land registry and conformation of the land ownership from the divisional secretariat division took more time to complete the land ownership clearance process
- Time-consumption for the decision-making process of the investor – A2 mentioned that, mainly for initial design approvals, selection of the consultant for the IEE process, and final design approvals as significant time-consuming events
- Delays in providing the design documents by the Architects – According to A1, initial design proposals, preliminary designs, and also the final council drawings were delayed to submission by the Architects
- Several document requirements for application submission for SLTDA and other institutions – refers to A1 and A2; at the initial stage (preliminary approval stage) SLTDA requested the following documents; project proposals, total waste management proposals, initial design proposals, land ownership approvals, land survey plan approvals
- Time is taken for CCD advisory council meeting - to decide the environmental approval process, the project proponent needs to get the special approval from the

CCD advisory council which is a compile of the relevant government institutes. According to A1 and A2, that meeting took nearly two (02) months period for this project

- Time is taken to submit the IEE report by the consultant – A1 mention that the final report of the IEE did not submit by the IEE consultant within the targeted time frame due to data collection, and analysing the process of the IEE report took much longer
- Lack of knowledge of investors on supportive infrastructure service approvals (fire, water supply, and Electricity) – A1 and also A2 raised that issue, fire and water supply clearances are mandatory requirements to apply for the final stage development permit
- Design changes according to the several stockholder's requirements – refers to A1, according to the IEE report recommendations, project proponent needs to do the changes for the final council drawings. To do the changes by the design team and to get approval from the project proponent and relevant line agencies, it will take time and due to that reason project will be getting delayed

The followings are the mitigatory measures and suggestions made by the project stakeholders to overcome delays, according to the A1 and A2.

- The requirement of an information platform to get all information about the approval process as well as line agency details.
- Need to introduce an online system for the land clearance process and land clearance information.
- Making all changes according to line agency requirements for the final council drawings, before submitting for the final approvals, it helps to minimise the final approval stage time.

#### **4.6.2. Causes of delays related to case B**

Case B was taken 310 days to complete the total pre-construction approval and for this project, it got delayed in every stage of the critical path. The followings are the identified main causes of delays of this Case B, according to the interviewed stakeholders (B1 and B2);

- Delays in providing the design documents by the Architects – According to B1, final council drawings were delayed by the design team due to several corrections on the final design with comparison to the initial design
- Time taken by the investor to make decisions – B2 mention that; at the initial stage of design proposals, IEE consultant selection, and the council drawing finalisation stage, the project proponent took his time to approve the designs and to select the consultants.
- The complexity of the application forms – according to B1 and B2, government institutions application forms asking for the general information of the project as well as technical information. Therefore, individually project proponent cannot fill those applications and he needs to get the consultation of the technical expertise. Thus, the submission time of the application will be getting delay.
- Lack of coordination from the mainline agencies with supportive infrastructure service agencies (Fire and Electricity) – both B1 and B2 indicated that, main approvals from the UDA, CCD, CEA, SLTDA, etc. coordinated by the SLTDA and CEA. But approvals for fire certification and electricity supply requirements are not coordinated by any government institution, and the project proponent needs to get it from himself. But to apply for the final stage development permit, submission of aforesaid approvals is compulsory.
- Delays in Colombo Municipal Council approvals in several departments – B1 made comments on this; for the solid waste, planning, fire, drainage, and water supply clearances need to be taken by the investor from the separate divisions.

B1 and B2 gave the following suggestions and mitigatory measures to minimise the delays in the pre-construction period approval process;

- Need to introduce investor user-friendly applications and a one-time document submission process.
- The necessity of the proper communication plan including with client, technical team, and also relevant line agencies.
- Need to behave single window process to coordinate all line agencies (especially for the CMC activities)

#### **4.6.3. Causes of delays related to case C**

Case C spend 270 days to complete the pre-construction approval process and compression with the other projects, case C had the fastest actual period. But compared to the expected time duration case C occupied 90 more days to complete the process.

- Complicated process to follow for the approvals – C1 raised out that, the total approval process was very complicated and at the beginning, there was no proper path presented by and government institution, and accordingly process got delayed without identifying the correct path
- CCD advisory council meeting held on once a month only – according to C1 and C2, after completed the preliminary approval process, to start the IEE procedure they wait for one and half months to get the CCD advisory council approval
- Time is taken to submit the report by the consultant – according to C1, the IEE consultant did not submit the final report to CCD within the agreed period and therefore whole approval process got delayed
- Lack of coordination from the mainline agencies with supportive infrastructure service agencies (Fire, water supply, and Electricity) – according to both interviewers (C1 and C2), no any of the mainline agency conveyed the information or did not coordinate about the infrastructure approvals such as fire, water supply, and electricity clearances at the initial stages. But at the final stage, UDA asked for

those documents and it took more than one month to get those clearances. Therefore, the final approval stage got delayed

Following suggestions and mitigatory measures suggested by the C1 and C2 to minimise the delays in the pre-construction period approval process;

- Get the appropriate information about the approval process, before commencing the pre-construction period approval process. For that need to behave single platform with all kind of necessary data and coordinate by the one line agency
- Need to behave proper mechanism to conduct the vital decision-making meetings (like CCD advisory council meeting) without any delays.
- It is required to have a proper single window process to coordinate all line agencies (including infrastructure services) through the one contact point.
- With having a proper communication plan with line agencies as well as with the project stakeholders, it helps to minimise the delays in decision-making processes, document submissions, etc.

#### **4.6.4.Causes of delays related to case D**

For Case D, it was taken 486 days to complete the pre-construction approval process and it was the most delayed project among the selected five (05) projects. In the beginning, this project completed its preliminary approval process within the shortest period of 24 days (expected period was 30) but due to the following causes of delays which were identified by the two (02) stakeholders, the project got delayed;

- Delays in finalisation of documents and drawings with architects and other technical expertise - D1 figure out that, due to the non-submission of the architectural drawings by the design team and IEE report by the consultant on the requested time frame, the total approval process got delayed
- Land subdivision approval process - this approval needs to be got before starting the preliminary approval process. According to D2, the land subdivision process

started with the preliminary approval process, therefore without land subdivision approval, UDA did not issue the preliminary planning approval

- Several document requirements for application submission for line agencies – according to D1, SLTDA coordinate the approval process with other line agencies, and therefore they requested initial drawings, total solid waste management proposals, land ownership proofing documents, etc. several times. Because of it, to produce and submit the documents take time and it affected the delay in the process
- Delays in taking the decisions by the investor - D2 raised out that, investors made delays in their decision making procedures like, selection of the consultant, make the changes for the designs, finalising the budget
- Delays in the department of fishery clearance - according to D1 and D2, fishery departments took nearly four (04) months to give the clearance and lack of knowledge and interest in these approvals also affect this delay
- Delay in development permit by the UDA - According to D2, the final approval process, it took 139 days, and the expected period was only 60 days. At the development permit stage, UDA asked for several design changes and the supplementary documents. Therefore, the project got delayed due to the completion of those requirements
- Incomplete document submission by the investor - D2 pointed out that, due to the lack of knowledge of the investor as well as the lack of information given by the line agencies, at the initial stages' investors submitted incomplete design proposals and unapproved survey plans. At the development permit, stage investors did not submit the infrastructure approvals (water and electricity approvals) together with the development permit application.

Related to project D, following suggestions and mitigatory measures proposed by the interweaves of D1 and D2 which will help to reduce the delays in the pre-construction period approval process;

- Having knowledgeable persons in all line agencies to coordinate the approval process.
- One contact point (one line agency) needs to be coordinate the whole pre-construction period approval process on behalf of the investor.
- Design changes need to be informed to the project proponent at one time by all line agencies instead of requesting for changes by the several line agencies several times.

#### **4.6.5. Causes of delays related to case E**

Case E was taken 485 days to complete its' pre-construction approval process and due to the location and scale, several approvals and clearances had been taken. The following are the main cause of delays raised by the project stakeholders which were directly affected on the approval proves;

- Delays in submission by architects and other technical expertise - E1 figure out that, more delays happened with the late submission of designs by architectures and submission of the IEE report by the consultants
- Several document requirements for application submission for line agencies - According to E1 and E2, for the preliminary clearance process SLTDA asked for many documents such as approved survey plan, deeds, preliminary designs, project proposal, and total waste management plan. To submit the above documents, it was taken a long time, and accordingly, the approval process got delayed.
- Time is taken for holding the scheduled committee meetings - According to E1 and E2, at the approval process of the project, there were two (02) scoping committee meetings scheduled by SLTDA and CEA. Those scoping committee meetings are scheduled for once a month minimally. For this project, the SLTDA scoping meeting was held after three and half months form the application submission date
- Time taken to submit the report by the consultant – E1 said that, after issuing the “Terms of Reference” for the IEE report by the CEA, the IEE consultant did not

work according to the client's work plan and the consultant submitted the report with nearly one-month delay. It directly affected the whole approval process delay

- Design changes according to the several stockholder's requirements – according to E1 and E2, preliminary designs were changed nearly three (03) times due to recommendations made by UDA, NBRO, and CEA. In these changes, every time the client needs to get the service of the design team and then the design team need to get the approval from the client and also from the relevant line agency. Due to the above reason, the total approval process got delayed
- Lack of coordination and lack of providing information from the mainline agencies on supportive infrastructure service agencies (Fire, water supply, and Electricity) - according to E1, at the beginning of the pre-construction approval process there was no any mainline agency to give the information or any coordination on the supportive infrastructure service clearances. But before the development permit, UDA asked for the fire, water, and electricity clearances from the client
- Delays in NBRO clearance – E2 raised out that, for the NBRO clearance, it was taken almost two (02) months period due to the site inspection delay. With the NBRO clearance, it was taken out of the changes for the structures and it also affected the project approval process delay
- Incomplete document submission by the investor to line agencies – according to E2, due to the less knowledge of the owner and lack of proper guidance from the line agencies, at the preliminary approval stage and final approval stage project proponent submitted completed documents to SLTDA and UDA

Followings show the strategies and mitigatory measures which are figure out by the E1 and E2, for preventing the causes of delays in the pre-construction period approval process;

- One line agency needs to be got the responsibility to complete the pre-construction period approval process on behalf of the investor.



- Need to introduce an information platform to get information on the approval process and also about the previous project details.
- Create the communication plan for the project to link the client, technical team, and relevant line agencies.

#### **4.7. Discussions - Common categories of “causes of delays effect on pre-construction period approval process”**

According to the stockholder interviews, it can be identified aforesaid causes of delays in the pre-construction approval process and those causes can be separated into main categories as follows;

Table 4.4: Common categories for the causes of delays in the pre-construction approval process

<b>Main category</b>	<b>Cause of delay</b>	<b>Relevant case study</b>
Land clearance process-related delays	<ol style="list-style-type: none"> <li>1. Delays in land ownership clearance process (A)</li> <li>2. Land subdivision approval process (D)</li> </ol>	A, D
Investor delays	<ol style="list-style-type: none"> <li>3. Time-consuming for the decision-making process of investor (A, B, D)</li> <li>4. Incomplete document submission by the investor (E)</li> </ol>	A, B, D, E
Consultant and design team delays	<ol style="list-style-type: none"> <li>5. Delays in providing the design documents by the Architects (A, B, E)</li> <li>6. Time is taken to submit the IEE report by the consultant (A, C, E)</li> <li>7. Delays in finalisation of documents and drawings with architects and other technical expertise (D, E)</li> </ol>	A, B, C, D, E

The complication of the approval process	<p>8. Several document requirements for application submission for institutions (A, D, E)</p> <p>9. The complexity of the application forms (B)</p> <p>10. Complicated process to follow for the approvals (C)</p>	A, B, C, D, E
Time-consuming for scheduling the key decision - making meetings	<p>11. Time is taken for CCD advisory council meeting (A, C)</p> <p>12. Time is taken for held the scheduled committee meetings (CEA and SLTDA) (E)</p>	A, C, E
Delays due to mainline agencies clearances and approvals	<p>13. Delays in Colombo Municipal Council approvals in several departments (B)</p> <p>14. Delays in the department of fishery clearance (D)</p> <p>15. Delay in development permit by the UDA (D)</p> <p>16. Delays in NBRO clearance (E)</p>	B, D, E
Supportive infrastructure service agencies related delays	<p>17. Lack of knowledge of investors on supportive infrastructure service approvals (A)</p> <p>18. Lack of coordination from the mainline agencies with supportive infrastructure service agencies (B, C)</p> <p>19. Lack of coordination and lack of information from the mainline agencies on supportive infrastructure service agencies (E)</p>	A, B, C, E
Design Changes	<p>20. Design changes according to the several stockholder's requirements (A, E)</p>	A, E

According to Table 4 .4, there are eight (08) main categories can be identified. Delays due to consultancy teams (IEE and design) and delays due to the complication process

of the pre-construction period can be identified as the most common categories for delays in the pre-construction period approval process for all selected hotel construction projects. Investor delays in the decision-making process and delays due to supportive infrastructure service agencies also affected the four (04) out of the five (05) selected case studies.

#### **4.8. Summary**

There were ten (10) stakeholders were selected for the five (05) cases and each case client and the technical person selected as stakeholders. With the within-case analysis, there are 20 significant causes of delays related to the pre-construction approval process was identified. After that with the cross-case analysis, there are eight (08) main categories identifies as common reasons for delays in the pre-construction approval process for more than one (01) case. On the other hand, interviewers presented the suggestions and mitigatory measures according to their own experience, to overcome the causes of delays, which were relevant to selected case study projects.

### 5. CONCLUSION AND RECOMMENDATIONS

#### 5.1. Introduction

This chapter concludes the research. Accordingly, it can identify the critical areas of concern in the research focus and give recommendations for identified issues, and also give suggestions for further studies.

#### 5.2. Conclusion

This research firstly discussed the pre-construction stage project approval process at the international level as well as in the local context. Then it especially focused on Sri Lanka context tourism hotel construction projects' pre-construction period approval process and steps of the process. As background studies, this research studied the elements and attributes of the projects and also the international and local situation of the tourism industry.

Then this research focused on the major challenges which are effective in the pre-construction approval process of the construction project delays. With the literature review, the causes of delays that are effective in the pre-construction approval process of the construction project were identified. On the other hand, there were strategies and recommendations identified with the literature review.

After studying the literature review outcomes, five (05) large- scale hotel construction projects were selected as case studies. Accordingly, data were collected from the line agencies and stakeholders, who were directly engage with the aforesaid projects. Hence firstly calculated the actual period of each selected project and compared those figures with the expected time frame of the pre-construction approval process of the hotel construction project. Accordingly, it can be identified the variation of each project timeline from the expected time frame and causes of delays affected those variations with the stakeholder analysis.

With the research findings, it can be identified eight (08) main categories and 20 number of “causes of delaying for the pre-approval process of the hotel construction projects in Sri Lanka”. Those causes were raised out by the project stakeholders (project proponents, architects, engineers, and project coordinators) according to their own experience.

Through the within-case analysis and the cross-case analysis, (i) Consultant and design team delays, and (ii) Complication of the approval process were identified as the most common categories for the preconstruction period delays. Since those category related causes of delays can be identified in every selected case study.

The followings are the most common causes of delay in the pre-approval process of the hotel construction projects; (i) Time-consumed for decision- making the process of the investor, (ii) Delays in providing the design documents by the Architects, (iii) Time taken to submit the IEE report by the consultant, (iv) Several document requirements for application submission for Institutions, (v) Time is taken for held the scheduled committee meetings (vi) Lack of coordination from the mainline agencies with supportive infrastructure service agencies. Aforesaid causes of delays can be identified within in minimum of three (03) cases out of the five (05) case studies.

Out of the two (02) of the most common categories for causes of delays in the pre-approval process of the hotel construction projects one is directly related to the internal process of the project. Because “consultant and design team delays” is an internal delay that was occurring in the project approval process.

Considering the above six (06) most common causes of delays in the pre-approval process of the hotel building projects, three (03) of the causes of delays are directly related to the internal process of the project. Those delays happened due to the investor/client and project consultants (IEE consultant and design consultants). Accordingly, client, IEE consultants, and design team related delays were recognised in every selected case studies. Therefore, internal factors like investor/client delays and project consultants’ delays play a major part in the overall delay of the approval process. The aforesaid causes of delays not only affect a single phase of a project

approval process and also its effects are visible on the whole pre-construction approval process of the hotel projects.

Throughout the institutional framework, the following causes of delays were recognised with the data analysis; (i) Several types of document submission for several line agencies within the pre-construction approval process, (ii) Time taken for held the scheduled committee meetings to take the main decisions on the project approval process and (iii) Lack of coordination from the mainline agencies with supportive infrastructure service agencies. Document submission related delays affect the pre-construction approval process. Meeting scheduling related delays affected the preliminary approval and IEE approval stages. Delays in supportive infrastructure services clearances directly affected the final approval stage of the pre-construction approval process.

In Sri Lanka, for the Land clearance process, there is no clear path for the project proponents to follow and there is a lack of intervention of the line agencies to get the responsibility to clear the land ownership of the project proponent. Therefore, one line agency needs to take the responsibility to coordinate and advise on the land clearance process and it should be communicated to the project proponent before purchasing the project land. It is recommended to establish an online platform to provide information and advice from the professionals to the interested parties on the land approval/clearance process.

A single online platform needs to be introduced with reducing overlapping and reducing complexity for the “pre-construction approval process” and one line agency needs to do the coordination part. It is also required to introduce one-time documents and application submission for all line agencies through the single line agency, instead of several submissions several times. On the other hand, it needs to introduce easy access for the correct information for all kinds of government institutions in a single platform.

EIA/IEE process is the vital segment of the “pre-approval process in Sri Lanka” and according to the project approving agency, the process of the EIA/IEE getting vary. To minimise the issues related to this process, the Government needs to introduce a

common process for every line agency with a schedule for the EIA's and IEE's. Accordingly, investors/Project proponents can decide on the expected time and project cost accordingly. On the other hand, the frequency of critical meetings like SLTDA or CEA scoping meetings and CCD advisory council meetings need to be increased. For that, it needs to combine and streamlining the approval related laws at the national and local level.

At the same time supporting infrastructure services (Fire clearances, Water, and Electricity clearances) need to be incorporated with the “main pre-construction approval process”. That process also needs to give the appropriate information for the investors to identify the clear path of the approval process at the beginning of the process. On other hand, a fully interconnected Management Information System (MIS) with all geographical information of the projects and line agencies, project proponents would allow getting the information about the project process.

Re-engineer and streamline the investment approval process will be one of the main actions that can be taken by the government to minimise the delays within the institutional formwork of the pre-construction approval process. Accordingly, at the first stage, it needs to identify the issues and shortcomings of the approval process. Then it can introduce the amendments for identified issues and shortcomings. This process needs to be done for the whole pre-construction approval process and also at each line agency level. It also should not be finished with doing the amendments for identified issues and shortcomings yet to continue research and developments for the approval process by the line agencies.

### **5.3. Recommendations**

This section mainly focuses to give the strategies and the recommendation to overcome the identified causes of delays in the pre-approval process of the hotel construction projects. Following Table 5.1, present the common recommendations and suggestions to minimise the institutional framework related delays in the pre-construction approval process.

Table 5.1: Recommendations and suggestions for each main category related to the institutional framework of the causes of delays in the pre-construction approval process.

Main category	Recommendations / Suggestions
<ul style="list-style-type: none"> <li>➤ Land clearance process-related delays</li> </ul>	<ul style="list-style-type: none"> <li>• Create high accessibility for government approval process, regulations, and guidelines</li> <li>• Introducing the online process for the land registration process and land clearance process</li> </ul>
<ul style="list-style-type: none"> <li>➤ The complication of the approval process</li> <li>➤ Time-consuming for scheduling the key decision - making meetings</li> <li>➤ Delays due to mainline agencies clearances and approvals</li> <li>➤ Design changes according to the line agencies' requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Adoption of a single approval process or facilitation window.</li> <li>• Implementing technological platforms at the national level and connect the local authority level.</li> <li>• Combining and streamlining the approval related laws at national and local levels.</li> <li>• Re-engineer and streamline the investment approval process.</li> <li>• Appointing the authorised firms to undertake the approval works on behalf of authorities</li> <li>• Appoint the qualified professionals to approve each stage of the approval process,</li> <li>• Providing appropriate information for the investors to identify the clear path of the approval process.</li> <li>• Introducing the Geographic Information System (GIS) for the whole country with all the relevant geotechnical study information on every project.</li> <li>• Fully integrated Management Information System (MIS) with all geographical information of the projects and line agencies.</li> <li>• Coordinating line agencies through Memorandum of Understandings (MoUs).</li> <li>• Prepare a communication plan and proper guidelines for investors.</li> </ul>



<p>➤ Supportive infrastructure service agencies related delays</p>	<ul style="list-style-type: none"> <li>• Providing appropriate information for the investors to identify the clear path of the approval process.</li> <li>• Fully integrated Management Information System (MIS) with all geographical information of the projects and line agencies.</li> <li>• Coordinating line agencies through Memorandum of Understandings (MoUs).</li> </ul>
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#### 5.4. Further studies

This research mainly carried out on the process of the pre-construction approvals process of hotel construction projects in Sri Lanka. This research covered the initiation phase and planning phase-related causes of delays, but further studies can be done to recognise the causes of delays in the construction stage (implementation phase and closure phase) for the Sri Lankan context.

From this study, it was identified the client related delays and consultant related delays play a critical role in delaying the pre-construction approvals process. But research focused on institutional framework delays, therefore a separate study can be done to identify the reasons behind the client related delays and consultant related delays.

According to the study findings, the environmental approval stage takes more time than the other stages and it is a complicated process, and on other hand, the approval process changes according to the project approving agency. Therefore, it needs to do a separate study to identify the issues related to each environmental approval process of each line agency, and then it would finally lead to propose a more effective common environmental approval process.

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**APPENDIX A: Database of the line agency pre-construction approvals of the selected case study hotel construction projects**

<b>Project Name</b>	<b>Location</b>	<b>No. of Rooms</b>	<b>Application Received</b>	<b>Inspection</b>	<b>SCM Date</b>	<b>SLTDA PC</b>	<b>UDA PPC</b>	<b>CEA</b>	<b>CCD</b>	<b>Dep. of Archaeology</b>	<b>DMC</b>	<b>Dep. of Fisheries</b>	<b>NBRO</b>	<b>BOI</b>	<b>CAA</b>	<b>UDA Development Permit</b>	<b>SLTDA Final Approval</b>	<b>Total time</b>
<b>A</b>	Gintota	178	08/31/2011	9/26/2011	10/6/2011	10/25/2011	10/14/2011				8/22/2011		1/17/2012	11/8/2011		10/22/2012	10/26/2012	<b>422</b>
<b>B</b>	Colombo	210	1/31/2013	2/18/2013	2/21/2013	6/30/2013	3/25/2013		8/25/2013	8/1/2013	2/28/2013			6/6/2013	2/20/2013		6/12/2013	<b>310</b>
<b>C</b>	Pandaura	176	5/19/2014	5/27/2014			7/7/2014		11/27/2014					9/15/2014		2/12/2015	2/12/2015	<b>270</b>
<b>D</b>	Tangalle	176	5/21/2018	6/8/2018	6/12/2018	6/13/2018	-		5/2/2019	NA	NA	7/10/2018	1/30/2019	N/A	NA	8/23/2019	9/19/2019	<b>486</b>
<b>E</b>	Nuwara Eliya	135	12/22/2014		3/26/2015	1/16/2015		3/31/2015			2/12/2016			3/10/2015		5/7/2015	4/20/2016	<b>485</b>

APPENDIX B – Interviewer’s Guidelines

**Identification of causes of delays and mitigatory measures (suggestions) during the pre-construction period approval process of large-scale hotel construction projects in Sri Lanka**

**1. General Details**

Case study code	
Interviewer’s code	
Interviewer’s position	

**2. Case study time duration details**

Project approval stage	Expected Time Duration	Actual Time Duration*
Preliminary approval process	30	
Environmental Approval process and Other Approvals	90	
Final design stage and Construction approval process	60	
Total Days for the whole process*	<b>180</b>	

(\* - Need to be calculated with the secondary data collection)

**3. Causes of delays during the pre-construction period approval process**

Stage	Identified causes of delays
Land clearance process	
Preliminary approval process	
Environmental Approval process and Other Approvals	
Final design stage and Construction approval process	

Stage	Identified causes of delays
Total Days for the whole process*	
Common causes of delays	
Any other delays	

**4. Mitigatory measures are taken to overcome the delays during the pre-construction period approval process**

**5. Suggestions to overcome the delays during the pre-construction period approval process**