

**STAKEHOLDER MANAGEMENT ISSUES IN  
CONSTRUCTION PROJECTS: A CASE STUDY**

W.V.U. Ravinath Kulathunga  
(128264 T)

Degree of Master of Business Administration in Project Management

Department of Civil Engineering

University of Moratuwa  
Sri Lanka

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## **DECLARATION**

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

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Name of the supervisor: Dr. Lesley Ekanayake

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Date :

## **Abstract**

Construction industry, irrespective of its nature and magnitude, is affected by various problems which ultimately lead projects to failures. Surprisingly, most of these problems are non-technical but related to different aspects of Project Management.

Stakeholder Management is a critical component in Project Management which is largely responsible for either the successful delivery of a project or its failure. There are hundreds of examples from all over the world, for failures in construction projects due to ineffective management of Stakeholders.

The purpose of this study is to investigate how far the theories and concepts of Stakeholder Management are being practiced in the Construction industry of Sri Lanka by using a case study project and thereby to identify the main issues in Stakeholder management in construction projects.

In the study, among the few models developed for Stakeholder management in businesses, one model was selected as suitable and data collected was analyzed in comparison with the guidelines given in the selected model.

The main issue in Stakeholder management of construction projects, as identified in this study is that more attention is usually paid on the key stakeholders with all three attributes of Power, Legitimacy & Urgency whereas latent stakeholders are given less significance.

However, with the finding of the study it was noted that there is a tendency of latent stakeholders to behave dynamically to gain access to other stakeholders and become more powerful and influential towards the Project.

In order to overcome similar issues in future Projects, it is recommended not only to study the individual impact of each latent stakeholders but to analyze their impact with every possible combinations of other stakeholders.

It is recommended to expand the scope of the study in to different sectors of construction industry and to reach a more generalized conclusion on main issues of stakeholder management in construction projects in Sri Lanka.

Key words : Stakeholder, Stakeholder management model, Attributes,

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## **1.0 Introduction**

### **1.1 Research Background**

Any construction project in the world will have an inherent feature i.e. the project has to face many risks due to exposure to its dynamic environment according to Ofori Calzadilla et.al 2012.

He further says that these risk factors are common to all construction projects irrespective of its nature, magnitude or the geographical location.

Raftery (2014) says delays in time and cost overruns have become the most common risks faced by the construction industry worldwide, leading to failures subsequently. Ikediashi (2014) highlighted that there are many reasons for such failures, including technological failures, inadequate project management implementation and a lack of communication.

Among them, many research studies have realized that stakeholder involvement is an indispensable component for project success or failure (Yang et al., 2010; Brian and Martin, 2008; Boshier et al., 2007; El-Gohary et al., 2006; Wang and Huang, 2006; Cole, 2005; Olander and Landin, 2005; Chan and Chan, 2004; Dainty et al., 2003).

Zidane et al. (2015) have revealed that there is strong relationship between the measures of success or failure of the Project and the project's internal and external stakeholders. He further says that many project failures are due to the fact that stakeholders have not been either managed or engaged effectively.

Therefore it has become a very essential and a critical requirement that the relevant stakeholders should be effectively managed in order to make sure that deliverables of the project are achieved within the scheduled targets.

## **1.2 Problem Statement**

Stakeholder Management has become a vital factor in successful completion of a project. Many national and international projects have ended up as failures being victimized to ineffective Stakeholder Management.

For example, Ezeabasili et.al (2015) reveal the poor performance of road construction projects, in Anambra state, Nigeria due to stakeholder issues. It was highlighted that more than 70% of the projects awarded during the period from 2007 to 2009 were either delayed or stalled/re-tendered due to poor Management of stakeholders.

Not only in developing countries, even in developed countries, similar situations can be observed. According to Aritua et.al (2008) a good example is the project for construction of New Wembley National Stadium, in London which was envisioned to be one of the largest and extraordinary stadiums in the world with a seating capacity of 90,000. It was aimed to host large music concerts, Athletic games and Cup finals and a dream of hosting the 2006 Football Association Challenge Cup (usually known as FA CUP) finals, the most prestigious and largest British soccer championship.

However, Aritua et.al (2008) says that the Wembley stadium becoming a victim of accusations, rumors and controversies due to stakeholder issues, was finally delivered at £70 million over budget and in almost one year delay, giving the opportunity to Wales to host the above prestigious event of 2006 FA CUP finals.

Zidane et. Al (2015) studied how Stakeholders shape successes or bring failures by assessing a road construction project in Algeria. The Algeria East-West Highway megaproject's cost was more than US\$ 11.2 billion. It was developed along Algeria's borders with Morocco and Tunisia with total length of 1,216 km connecting the capital and all the northern big cities.

Zidane et. Al (2015) further states that the project idea existed since 1975, but the decision was made in 2005, 40 years later. Since then it was scheduled for completion in the fourth quarter of 2009, but it was delivered behind schedule by five years due to stakeholder involvements.

In Sri Lanka also, it is noted that many construction projects had been either delaying for years or totally abandoned with no definite action plan to go ahead due to merely various stakeholders issues of the project.

Some of the very good example are

- a. Colombo Katunayake Expressway  
(Ref: [http://www.auditorgeneral.gov.lk/web/images/audit-reports/upload/2013/project\\_2013/ColomboKattunayakaExprees-wayE.pdf](http://www.auditorgeneral.gov.lk/web/images/audit-reports/upload/2013/project_2013/ColomboKattunayakaExprees-wayE.pdf))
- b. Norochcholai coal power plant  
(Ref : <http://sundaytimes.lk/110320/BusinessTimes/bt09.html>)
- c. Upper Kothmale hydro power plant [Nandalal (2007)]

Nandalal (2007) describes that initial concepts of above projects have been under discussion almost decades back however they could not be implemented due to various political and social concerns raised by stakeholders.

Having realized the above situation in past projects and the importance of Stakeholder Management in future projects, most of the donor agencies such as Japan International Corporation Agency (JICA), Asian Development Bank (ADB), African Development Bank (AfDB), World Bank (WB) etc. have enforced the requirements of Stakeholder Management in their loan agreements as well.

(Ref: <http://www1.worldbank.org/publicsector/anticorrupt/PoliticalEconomy/stakeholderanalysis.htm>)

The reasons to adopt all these measures are the consequences of poor Stakeholder Managements of projects are very expensive if not priceless. As Preble (2005)

explains the mismanagement of stakeholder activist issues can result in lost markets and revenues, a decline in share prices, large legal fees, as well as wasted management time.

In this context, it is very important to investigate whether the Stakeholder Management is being effectively implemented in construction projects in Sri Lanka. For this need to be taken to select a suitable model for Stakeholder Management in construction projects.

### **1.3. Research Objectives**

Research objectives of this study are,

1. To identify a suitable model for Stakeholder Management in construction projects.
2. To apply the above selected model in a construction project disputed by stakeholders in order to identify the main issues in Stakeholder Management in construction industry.
3. To recommend how to avoid above issues in future similar projects

### **1.4 Significance of the Study**

There are many examples to substantiate the consistent relationship between the effective Stakeholder Management and success of a project.

However, despite the fact that sufficient theoretical knowledge has been gained on this subject, not much effort has been taken to integrate this knowledge and to formulate a process model for Stakeholder Management for construction industry.

By carrying out this research study, it is expected to compare different models developed for management of stakeholders in business industry and to select a suitable model for Stakeholders Management in construction projects which may be used to fill up the existing gap due to unavailability of such a model for construction projects. The major findings of this study will identify the issues in Stakeholder Management in Sri Lankan construction industry.

Further to above, it will take a reasonable attempt to give recommendations on how to avoid above identified issues in Sri Lankan construction projects.

### **1.5 Research Methodologies**

In a social research, outcomes/findings cannot be arrived at by means of statistical procedures or other means of quantification, according to Strauss and Corbin (1998). Accordingly, a qualitative type case study based research methodology was used, in this study, as described below.

#### **1. Literature Review**

A literature review was carried out to identify the different models developed for Stakeholder Management and to select a suitable model for Stakeholder Management in construction projects.

#### **2. Selection of a model**

A suitable case study project was selected to apply the selected management model to achieve objectives.

#### **3. Data Collection**

Data collection was mainly carried out in three streams in order to identify the gaps in stakeholder identification in the case study project.

They are,

##### **a. Documentary analysis**

Documents were reviewed from the inception of the project till date with distinct focus on its inception.

##### **b. Event analysis**

Events which have taken place till date were studied and listed down in the chronological order for easy reference.

##### **c. Analysis of stakeholder views**

The views of relevant stakeholders were obtained from minutes of meetings and press conferences attended etc.

#### 4. Data Analysis & Discussion

Data gathered in different means described above, was compared and analyzed using the guidelines of the model selected during the literature review in order to investigate achieve research objectives.

### **1.6 Chapter Breakdowns**

This research report consists of six chapters as listed below.

Chapter 1 – This gives a brief introduction of the study. It further explains the problem statement, objectives of the study, significance of the study and the methodology used.

Chapter 2 – This describes the literature review carried out in terms of the extent of support of previous studies on the topics related to this research, and link the previous studies to this project

Chapter 3 – This chapter is dedicated to describe the framework of the methodology of this research. Conceptualization and Operationalization of the research, research methodology, and research design and data collection methods are also described in this chapter.

Chapter 4 – Fourth chapter presents the data analysis with relevant explanations/justifications.

Chapter 5 – This discusses the research summary and conclusions with a brief recommendations for the future activities related to this research.

## **2.0 - Literature Review**

### **2.1 – Introduction**

In this Chapter, the literature related to the scope of this study was analyzed.

The first part of the chapter is dedicated to review the concept of Stakeholder Management, its historical background from inception in the business strategic management and its evolution into the field of Project Management.

Next part of the chapter will elaborate the different Stakeholder Management models developed and the selection procedure of a suitable model for Stakeholder Management in construction projects.

During the latter part of the chapter, information have been gathered for the investigation of construction projects including the case study project that have failed to produce expected deliverables of the project due to stakeholder issues.

### **2.2 – Stakeholders Management**

The historical roots of the stakeholder concept date back to the 1960s when academics at the Stanford Research Institute (SRI International, Inc.) first articulated what was considered at the time to be a controversial proposal (Stoney and Winstanley, 2001). However, it was not until the mid-1980s that the concept started to gain widespread acceptance in the United States and rest of the world, with the publication of Freeman’s influential book, *Strategic Management: A Stakeholder Approach* in 1984.

Stakeholders, as defined in its first usage in a 1963 internal memorandum at the Stanford Research Institute, are "those groups without whose support the organization would cease to exist"

Since then there has been much debate relating to the definition of stakeholders. According to Freeman (1984) for example, stakeholders are ‘groups and individuals

who can have effects on, or are affected by, the objectives of an organization’. In general, this definition implies bi-directional influence between organizations and

groups/individuals. It therefore takes into account a large number of persons and organizations that are directly and/or indirectly related to the organization. Several have followed this line of thinking (e.g. John, 2002; Jepsen and Eskerod, 2008; Olander, 2007; Frooman, 1999; Stephen and Chris, 2008; Jawahar and Gary, 2001; Mitchell et al., 1997). A narrower definition is provided by Mitchell et al. (1997), who mainly focus on the individuals/groups of direct relevance to the core economic interests of the companies involved, while Cleland and Ireland (2007) believe that stakeholders are people/groups having or claiming interest in a firm and its activities. Freeman (1984) considers stakeholders as a necessary factor for the firm's survival (cited in Mitchell et al., 1997). Clarkson (1995), by contrast, believes that stakeholders are those who have placed something at risk in a relationship with the firm. Similarly, Ward and Chapman (2008) regard stakeholders as sources of uncertainties.

### **Project Stakeholder Management**

According to the Project Management Institute (PMI), the term project stakeholder refers to, an individual, group, or organization, who may affect, be affected by, or perceive itself to be affected by a decision, activity, or outcome of a project' (Project Management Institute, 2013).

These stakeholders may be inside or outside an organization which:

- sponsor a project, or
- have an interest or a gain upon a successful completion of a project;
- may have a positive or negative influence in the project completion.

The following are examples of project stakeholders:

- Shareholders/ Client
- Donor agents/ Banks
- Project customer/ End users
- Contractors/ Subcontractors to the project
- Consultants to the project
- Local Community/ Public



- Labor unions/ NGO's
- Government/ Politicians
- Government regulatory agencies (Central Environment Authority, Local Government Authorities, Police Department etc.),
- Any group impacted by the project as it progresses
- Any group impacted by the project when it is complete

Stakeholder Management includes the processes required to identify people, groups or organizations that could impact or to be impacted by the project, to analyze stakeholder expectations and their impact on the project and to develop appropriate management strategies for effectively engaging stakeholder in project decisions and execution.

### **2.3 - Stakeholder Management models**

There are 4 nos. of stakeholder management processes described in the Project Management Body of Knowledge (PMBOK).

#### **a. Identify stakeholders**

Identify stakeholder is the process of identifying people, groups or organizations that could impact or be impacted by decision, activity or outcome of the project analyzing and documenting relevant information regarding their interest, involvement, interdependencies, influence and potential impact on project success. The key benefit of identifying stakeholder process is that it allows the Project Manager to identify the appropriate focus for each stakeholder or group of stakeholders.

#### **b. Plan Stakeholder Management**

This is the process of developing appropriate management strategies to effectively engage stakeholders throughout the project life cycle, based on the analysis of their needs, interests and potential impacts on the project success.

c. Manage stakeholder engagement

Manage stakeholder engagement is the process of communicating and working with stakeholders to meet their needs/expectations, address issues as they occur and foster appropriate stakeholder engagement in project activities throughout the project life cycle.

d. Control stakeholder engagement

This is the process of monitoring overall project stakeholder relationship and adjusting strategies and plans for engaging stakeholders.

As it was earlier explained not many efforts have been taken to develop models for stakeholder management process in Project Management.

Almost all the models developed are for the business industry only and most of the models are merely the graphical interpretations of the stakeholder management theories.

However, literature review was carried out for identifying available models for Stakeholder management in business firms and to select a suitable management model for Project stakeholders out of them.

Accordingly, following three models were identified during the literature review for further analysis as a suitable management model.

**2.3.1 - Model No 01 - 10-step stakeholder management model for ethical decision making**

In 2005, Simone de Colle presented a 10-step stakeholder management model for ethical decision making within organizations.

Followings are the steps recommended by him in his model.

#### Step 1 - Identify and map all stakeholders

The starting point for the organization is to identify all its stakeholders, including both Stakeholders in the strict sense (those who have an interest at stake because they have made specific investments in the firm in the form of human, financial capital or social capital) and stakeholders in the broad sense (those individuals or groups whose interest is involved because they undergo the ‘external effects’, positive or negative, of corporate activity).

#### Step 2- Assess issues at stake

Second, the legitimate claims of each stakeholder groups should be identified and assessed, by understanding the nature of their relationship with the firm (the analysis of the *rational*, *process* and *transactional level* addresses this phase);

#### Step 3 - Identify corporate values and existing commitments

Stakeholder management is a way for the corporation to define its own stance with respect to conflicting stakeholder claims. To reach this aim, it is important that the management demonstrate that corporate values and existing commitments underpin the whole stakeholder engagement process;

#### Step 4 - Prioritize issues

At this stage, the ‘strategic’ element of stakeholder management for ethical decision-making comes into place: the management has to decide on the base of which criteria stakeholder claims should be prioritized, in order to provide the best response to the most urgent issues at stake (the Power/Interest Grid addresses this problem, by providing a methodology for classifying and prioritizing stakeholder claims by assessing their *power* and *interests* with regards to the firm).

#### Step 5 - Review/develop policies

We enter here in decision-making processes dealing with the design of practical solutions to specific issues: as Wheeler and Sillanpää (1994) have pointed out, potential policy areas may include, with regard to the different stakeholder groups

such as The shareholders/ owners, Employees and managers, Customers, community, business partners, global economy etc.

#### Step 6 - Set objectives

As with any other management process, stakeholder engagement is more effective if specific objectives are identified in relation to the stakeholder issues that are at stake in a particular decision-making process of the organization. When initiating the dialogue with a specific stakeholder group, the management should clarify from the beginning what the intended objectives of the dialogue are

#### Step 7 - Measure performance

The corporation should be able to tell how well its stakeholder management processes are going – which of course depends on what objectives the firm has set for a specific stakeholder engagement process. In general, measures in this area relate on the one side to the quality of information that the stakeholder consultation delivers to the management – i.e., how useful it is for the decision-making process involved – and on the other, on the increase of stakeholder trust and confidence towards the firm generated by the process.

#### Step 8 - Communicate and report

A crucial element for achieving the benefits of stakeholder management is communication and reporting activities, both internally, to provide the management with useful information on stakeholder views and interests, and externally, to demonstrate to stakeholders that the firm ‘walks the talk’

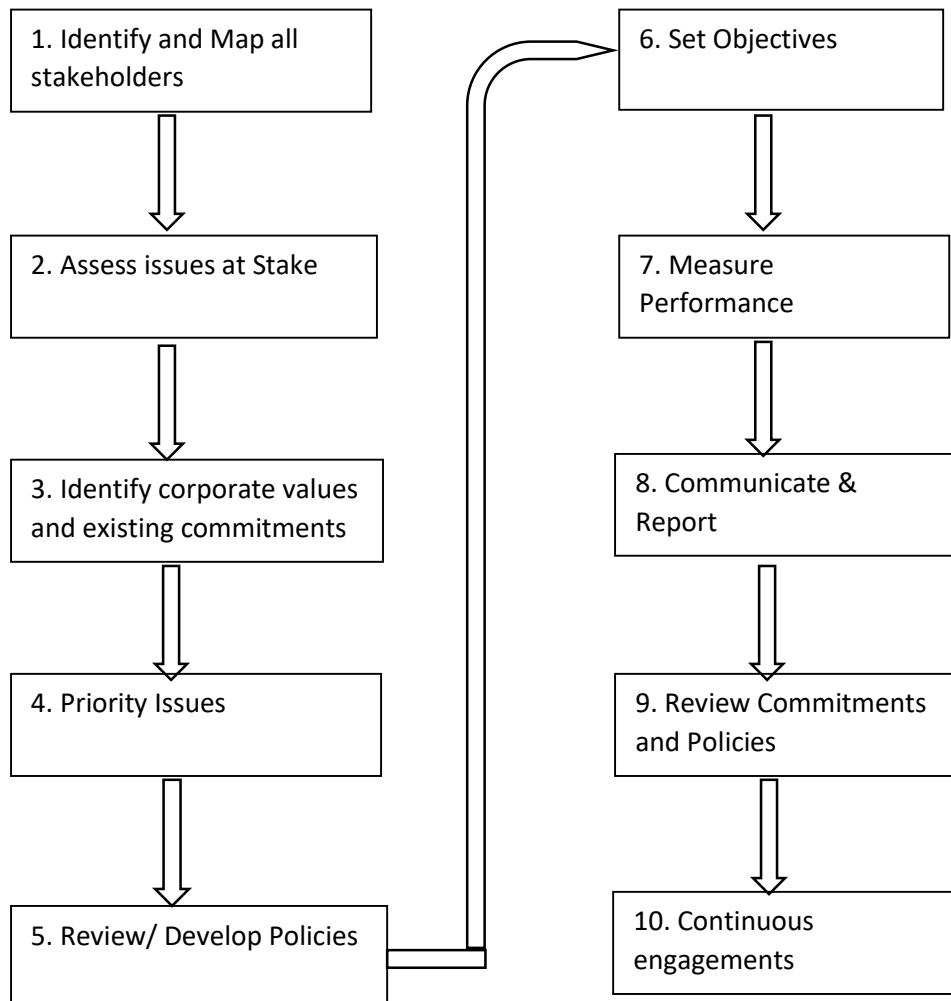
#### Step 9 - Review commitments and policies

The initial position of the organization on a specific issue that has been the focus of stakeholder consultation process should be reviewed as a result of the views expressed by stakeholders during the consultation. Similarly, corporate policies should be reviewed to develop the most appropriate company response to issues raised by the stakeholders during the consultation process.

### Step 10 - Continuous engagement

This final step of the model is an element concerning the whole process of stakeholder management. It refers in fact to the need of engaging with stakeholders as an ongoing approach, to allow managers to consider stakeholder views in every decision-making process

## **10-step model for stakeholder management for ethical decision making**



**Figure 1 – 10-step model for Stakeholder Management for ethical decision making**

(Source : Colle, 2005)

Colle recommends that this stakeholder management model can be seen as a *management tool*, i.e., as a resource that managers can apply to improve the quality of decision-making processes of their organization by identifying – and systematically taking into consideration – the legitimate interests and concerns of their organization’s stakeholders.

### 2.3.2 - Model No 02 – The semantic model developed for stakeholder inputs

EI-Gohai et.al (2006) developed a semantic model to capture and incorporate stakeholder input in the design. The model consists of five main entities: processes, products, constraints, actors and resources.

#### a. Processes

In order to obtain stakeholder input for effective collaborative infrastructure development, various processes shall be executed, including proper management and planning at every stage of the overall SI process

The following is a brief overview of the main processes.

- i. Stakeholder involvement programme design
- ii. Stakeholder involvement programme management
- iii. Stakeholder involvement administration
- iv. Public information dissemination
- v. Stakeholder participation
- vi. Stakeholder participation training
- vii. Stakeholder participation encouragement
- viii. Resolving differences
- ix. Stakeholder input documentation and storage
- x. Stakeholder input classification and analysis
- xi. Solution identification
- xii. Design coordination

#### b. Products

Products refer to the elements, physical or managerial, that are either an input or output of a process.

Products are composed of seven sub-products as follows.

- i. Stakeholder involvement programme management product
- ii. Stakeholder data and information
- iii. Public information material
- iv. Stakeholder input records and documents

- v. Stakeholder input report
- vi. Alternative solutions information
- vii. Design concepts information

c. Actors

The actors are those who have active involvement in the planning and implementation of the programme. Actors were modeled as stakeholders, consultants, advisors, or program staff.

i. Stakeholders

Stakeholders are modeled as responsible, impacted or interested.

ii. Consultants

A Consultant is an organization or individual brought into the project to provide professional consultation in a particular field of interest

iii. Advisors

An advisor is an organization or individual who provides expert advice on some aspect of the project development. Advisors include politicians, business leaders, elected officials, etc.

iv. Program staff

Program staff include programme manager, programme coordinator, public relations staff, facilitator, document controller, etc.

d. Constraints and concerns

Constraints affecting the stakeholder involvement process include budget schedule, code and Regulations .On the other hand, stakeholder concerns are considered as constraints to the design process.

e. Resources

These refer to the resources required in order to conduct the programme. They are mainly software, hardware and finance. Resources also include previous knowledge such as studies, research and lessons learned.



However, this model has been purely focused on Stakeholder involvement in public-private partnership projects only.

### **2.3.3 - Model No 03 – The six step model for comprehensive stakeholder management**

Preble(2005) suggests that literature on stakeholder management discusses separately many of the elements of the stakeholder approach, surprisingly little effort has been made to construct a comprehensive stakeholder management process model that can facilitate the actual practice of stakeholder management within contemporary organizations or even projects.

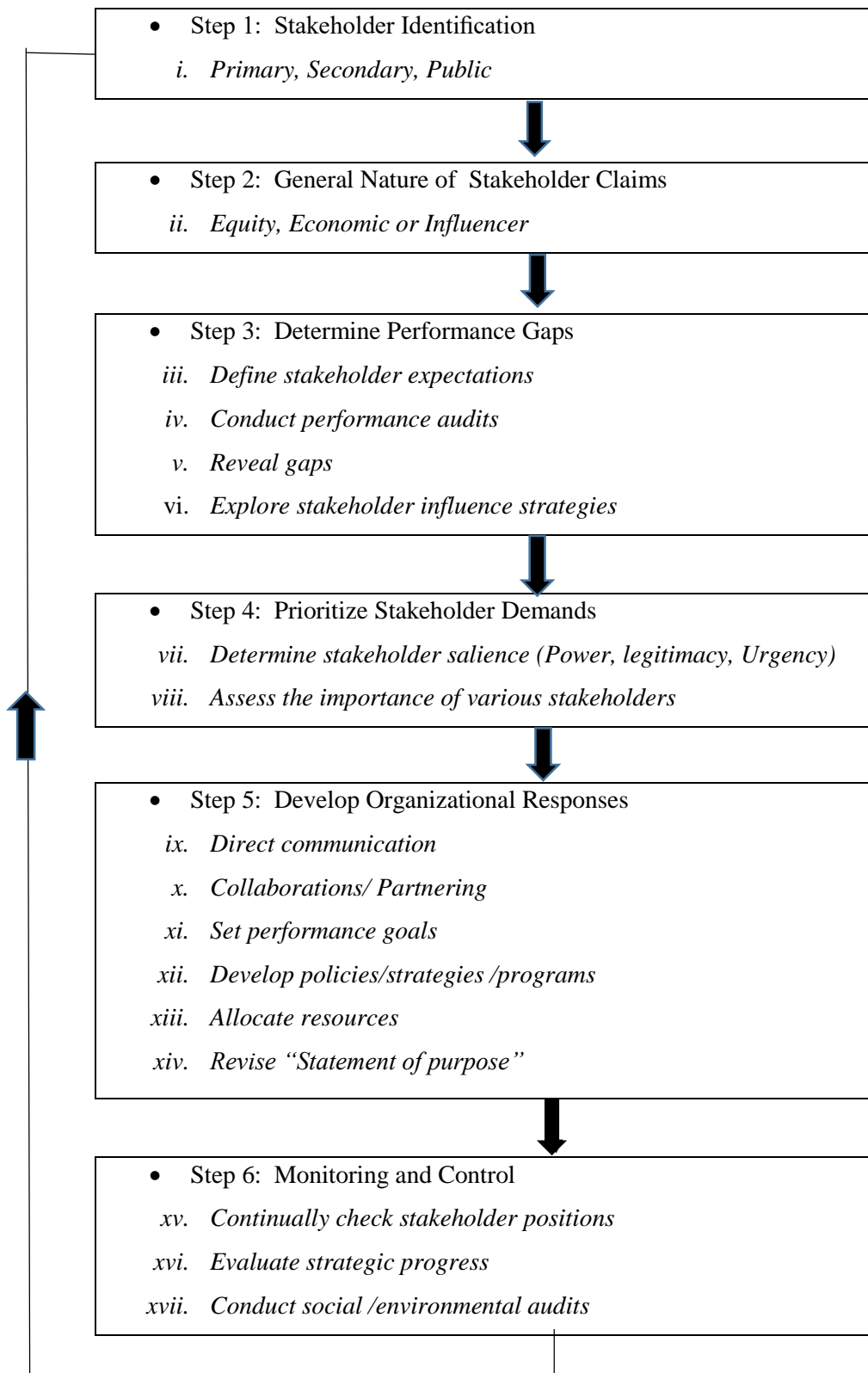
With the objective of filling this void, he presented a six step model for comprehensive stakeholder management for organizations which was published in his book “Business and Society Review”, 2005.

The six steps as he described in his model are,

- Step 1: Stakeholder Identification
  - Primary, Secondary, Public
  
- Step 2: General Nature of Stakeholder Claims
  - Equity, Economic or Influencer
  
- Step 3: Determine Performance Gaps
  - Define stakeholder expectations
  - Conduct performance audits
  - Reveal gaps
  - Explore stakeholder influence strategies
  
- Step 4: Prioritize Stakeholder Demands
  - Determine stakeholder salience (Power, legitimacy, Urgency)
  - Assess the importance of various stakeholders
  
- Step 5: Develop Organizational Responses
  - Direct communication
  - Collaborations/ Partnering

- Set performance goals
  - Develop policies/strategies /programs
  - Allocate resources
  - Revise “Statement of purpose”
- Step 6: Monitoring and Control
    - Continually check stakeholder positions
    - Evaluate strategic progress
    - Conduct social /environmental audits

## Six steps model for Stakeholder management



**Figure 2 – 6 Steps Model for Stakeholder Management**

(Source : Preble, 2005)

## Step 1 - stakeholder identification

A key initial issue in stakeholder management is stakeholder *identification*, i.e., who are an organization's relevant stakeholders? Stakeholders have been defined in various ways (Mitchell et al., 1997) with the broadest definition being given by Freeman (1984, p. 46): "A stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the organization's objectives."

Clarkson (1995) defines stakeholders as persons or groups that have, or claim, ownership rights, or interests in a corporation and its activities, be they past, present, or future and categorically identifies three groups of stakeholders as follows.

### 1. Primary stakeholders

Usually internal stakeholders those whose continuing participation is required if an organization is to survive, e.g., shareholders and investors, employees, customers, and suppliers.

In this project Primary stakeholders include Client, Consultants, Contractor, End user, Donor agency etc.

### 2. secondary stakeholders

- Usually external stakeholders who influence or affect, or are affected by, the corporation, but are not engaged in direct transactions with it and are not essential for its survival,
- Villagers were identified as secondary stakeholders in this project

### 3. Public stakeholders

firm with infrastructure and legal frameworks in which to operate, e.g., governments and communities.

Mitchell et al. (1997) developed a theory of stakeholder identification and salience which advanced the key proposition:

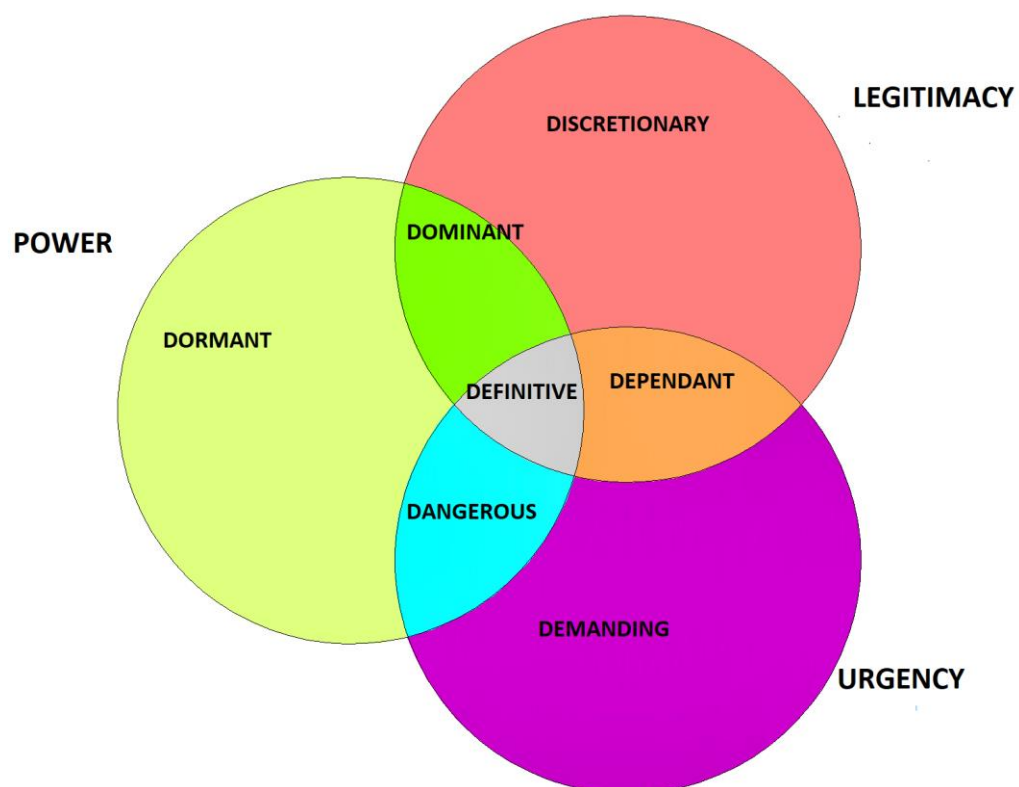
Stakeholder salience will be positively related to the cumulative number of stakeholder attributes—power, legitimacy, and urgency—perceived by managers to be present. (Mitchell et.al. 1997)

Urgency: the relationship with the stakeholder is marked by time and is key for the company.

Power: the stakeholder can influence others to take decisions that wouldn't have been taken on their own.

Legitimacy: the stakeholder has a moral or legal 'capacity to influence' the behavior of the company.

The graphical combination of these three attributes is illustrated in the figure 03



**Figure 3 - Three attributes of Stakeholders**  
(Source: Mitchell et al. 1997)

By using a combination of these three attributes a more precise prioritization can be established:

1. Latent (they only have one attribute, of less concern)
  - a. Inactive (those who have power, but no legitimacy or urgency in their petitions)
  - b. Discretionary (they have legitimacy, but no power or urgency)
  - c. Demanding (they have urgency, but no power or legitimacy).
  
2. Expectant (they have two attributes, of more concern)
  - a. Dominant (those who have power and legitimacy, but no urgency)
  - b. Dependent (legitimacy and urgency, but no power)
  - c. Dangerous (they have urgency and power, but no legitimacy).
  
3. Interest groups with the three attributes

Those with a high priority for the company, who must be treated and analyzed with priority in any strategy.

## **Step 2: General Nature of Stakeholder Claims**

It is useful once stakeholders have been identified in step 1, to make an initial assessment as to the general nature of the various claims or expectations that these stakeholders might have on the Project.

These stakes help to define what type of power a stakeholder possesses and what kind of a response would be appropriate for the firm to consider relative to each stakeholder.

The nature of a stake in the firm falls into three categories as follows. (Dill, 1975; Freeman, 1984)

- a. Stakeholders with equity power
- b. Stakeholders with Economic power
- c. Influencer

### Stakeholders with equity power

The stakeholders those who have direct ownership of the organization such as Shareholders, Directors or minority interest owners.

This equity stake in a firm has been compared to decision making power in a project which is held by core team members such as Client, Consultants, Contractor, End user and Donor agency

### Stakeholders with Economic power

Economic stakes are held by those who have economic interest but not an ownership interest such as customers, employees, suppliers and competitors. , .

### Influencer

Influencer stakes are held by those who do not have either an ownership interest or an economic interest in the actions of the organizations or the project but who have interest as consumer advocate environmental group, trade organization and government organizations.

## **Step 3: Determine Performance Gaps**

This step involves assessing each stakeholder's expectations, needs, and /or demands on various issues and comparing them to an organization's/Project's behavior on these dimensions to see if performance gaps exist.

Initially a Project must learn what their stakeholders want from the firm and determine if it is different than what the organization is providing. Once gaps are identified, strategies can be devised to reduce these gaps and therefore minimize the potential conflict that could result in disruptive and costly stakeholder actions against the firm

Determining stakeholder expectations can be a complex process. For remote stakeholders like environmental activists, open channels of communication may not exist and, therefore, expectations may need to be forecasted (Polonsky, 1995).

An organization may need to determine the expectations of even dangerous stakeholders (e.g., disgruntled employees, terrorists) where dialogue is deemed undesirable (Mitchell et al., 1997) or impossible.

In the case of unions, organizations are aware through prior negotiations, policy statements, and ongoing dialogue precisely what the union wants and needs and how well these are being provided by the management. Thus, performance gaps can more easily be identified by management.

Social and environmental stakeholder groups may have both specific expectations for firm behavior like a maximum amount of pollutants to be emitted and general desires such as a firm should be operating in a socially responsible manner. Social audits have evolved as a method for organizations to accurately identify stakeholder expectations in such cases and continually monitor changes in organizational performance with respect to those expectations.

Through the above methods organizations can determine stakeholder expectations and demands, compare these with their organization's behavior, and thus determine where key gaps and conflicts exist. Additionally, organizations may explore during this step not just what stakeholders want, but how they might intend to get it through stakeholder influence strategies. Since organizations may not possess sufficient resources to simultaneously address all gaps, the next step will be to prioritize where efforts will be initially focused

#### **Step 4: Prioritize Stakeholder Demands**

Having identified the stakeholder expectations in Step no. 3, those demands will be sorted out on a priority basis in this step.

As discussed in step 2 above, Mitchell et al. (1997) advanced a theory of stakeholder identification and salience (the degree to which managers give priority to competing



stakeholder claims) based on the extent to which managers perceived stakeholders to possess power, legitimacy, and /or urgent claims.

Latent stakeholders have little salience to management as they possess only one attribute. For example, dormant stakeholders have power, discretionary stakeholders possess legitimacy, and demanding stakeholders have only urgency, but no power or legitimacy. However, it is worth to note that should one of these stakeholder entities gain access to another attribute their salience would increase markedly (Preble, 2005) Expectant stakeholders possess two attributes and moderate salience to managers as a consequence. Thus, dominant stakeholders possess power and legitimacy and form the “dominant coalition” of the enterprise (Cyert and March, 1963) e.g., owners, employees, large creditors, community leaders, etc. Dependent stakeholders, like oil spill victims, lack power, but have both urgent and legitimate claims. Gaining access to government agencies and the courts could provide these stakeholders with the power they lack initially. Dangerous stakeholders have both urgency and power, but lack legitimacy. However, because they are potentially dangerous to the firm they must be managed carefully, as discussed earlier.

Finally, definitive stakeholders have a high degree of salience as managers perceive power, legitimacy, and urgency to be present simultaneously. For example, institutional investors holding large blocks of company stock that is plummeting in value, require immediate attention by management as a very high priority stakeholder. Of course, non-stakeholders are at the other end of the continuum as these entities have no power, legitimacy, or urgency in relation to the firm and, therefore have little or no salience to the firm’s managers.

### **Step 5: Develop Organizational Responses**

Having just identified the firm’s stakeholders, their claims, expectations, and goals and compared them with the organization’s behavior and performance to reveal gaps and then prioritized stakeholders, we are now in a position to develop policies,

strategies, and organizational responses to minimize those gaps and attend to those priorities.

However, it will be necessary to limit the discussion to several generic approaches that could be employed on multiple stakeholder types, issues, and situations (Preble, 2005)

Suggested approaches,

1. Open dialogue
2. collaboration or partnering
3. Set performance goals
4. Develop policies/strategies /programs
5. Allocate resources
6. Revise “Statement of purpose”

One approach likely to have wide applicability is for an organization to use direct communication or open dialogue with their stakeholders (Freeman, 1984; Harrison and St. John, 1996; Polonsky, 1995).

With the aim to build relationships with different groups to promote understanding and seek new ways of conducting the project to greater mutual advantage

Thus, dialogue and engagement are recommended in order to allow each party to more clearly define their position or situation (i.e., how they are being impacted or what resource constraints they might face) leading to an increased understanding as well as the uncovering of areas of common ground.

The management is then in a position to suggest initiatives and goals toward improving their performance/behavior on an issue and the stakeholder, as a result of new knowledge and increased understanding of the firm’s situation, is in a position to

modify or refine their expectations. Both parties moving positions should substantially reduce the gap and avoid negative events like stakeholder protests or boycotts.

Another strategy for managing firm–stakeholder interactions increasingly being used by today’s organizations is collaboration or partnering (Harrison and St. John, 1996; Savage et al., 1991)

Pfeffer and Salancik (1978) suggest increasing mutual control over each other’s activities as a typical solution to problems of uncertainty and interdependence.

Collective monitoring procedures, collective lobbying campaigns that are likely to bring the firm in closer alignment with its critical stakeholders.

A similar typology of stakeholders developed by Savage et al. (1991) includes the “mixed blessing stakeholder,” which has both a high potential to threaten the firm as well as a high potential to cooperate with it. The strategy suggested as best for managing this type of stakeholder is to maximize cooperation and reduce the risk of opposition through collaboration

Setting performance goals and targets with respect to the concerns and expectations of key stakeholders is emerging as an important means for managing firm–stakeholder relations. Stakeholders could be invited to participate in the planning process itself, while other stakeholder viewpoints (determined during scanning) will also be incorporated into the planning process (Daake and Anthony, 2000).

With goals set with respect to stakeholders’ interests, specific programs and tactics such as advocacy advertising, negotiating with activist groups, lobbying for deregulation can be adopted in achieving those objectives

Lorange (1983) argued that it is important that new programs and initiatives designed to help achieve goals directed at stakeholder expectations be adequately funded. Further suggested that new strategic programs need to be treated separately from the

operating budget so as to give clarity and urgency and thus assure that sufficient resources will be devoted to these programs

With all of the above steps completed it is an opportune time to reflect on an organization's "statement of purpose" or "mission statement" or objectives of the project.

### **Step 6: Monitoring and Control**

Stakeholder positions on issues are likely to change, sometimes dramatically, over time calling for continuous monitoring of stakeholder expectations lest the organization could be caught off-guard or be pursuing stakeholder strategies that are no longer relevant

From project's point of view, stakeholder programs need to be constantly evaluated and monitored to assure that progress toward goals is actually being achieved. (Preble, 2005)

Social and environmental audits in addition to the technical monitoring procedures should also be employed as part of the monitoring and control process.

Utilizing the feedback obtained in step 6, the stakeholder management process then recycles back to step 1 for periodic reexamination and continuous improvement purposes.

## **2.4 – Selection of a suitable model for Stakeholder Management**

It is noted that all three models identified during the literature review were developed for managing stakeholders in business industry but not in projects. Therefore, it is very important to select a model that can be applied in the construction projects.

However, there was no prior studies carried out to identify criteria for selection of a more suitable model out of the available models. Therefore, following criteria were used for the evaluating and selection of the most suitable model

- a. The selected model shall have a logical presentation of activities (not merely a graphical explanation).
- b. It shall comply with basic Project Stakeholder Management aspects described in PMBOK (Project Management Body Of Knowledge)
- c. Shall be able to apply in any general project.

The evaluation is tabulated as follows.

Table 2.1 - Evaluation for suitability of Stakeholder management model

<b>Type of Model</b>	<b>Logical presentation of activities</b>	<b>Use of basic Project Management Aspects</b>	<b>Applicability in any general construction project</b>
Model No. 01 - 10-step stakeholder management model	Yes	Yes	Yes
Model No. 02 - The semantic model	Yes	Yes	No
Model No. 03 – six step model for comprehensive stakeholder management	Yes	Yes	Yes

In above assessment it was noted that both 10-steps stakeholder management model developed by Simon Colle in 2005 and the six-step comprehensive management model developed by Prebel in 2005 can be used as a suitable model for stakeholder management in a Construction Project.

However, the six step model developed by Prebel, was selected as the suitable model considering its less complexity over the 10- step model developed by Colle.

## **2.5 – Similar construction projects disputed by stakeholders**

In this research, a study was carried out to investigate whether there are any construction projects that have failed to produce expected deliverables expected at the inception, due to stakeholder issues.

### **2.5.1 - Example no. 01 – Road projects in Anambra State in South East Nigeria**

The road construction projects in the State of Anambra in South East Nigeria starting from 2006 to 2009 were reviewed and it's a glaring view that starting from the year 2007 to 2009, that most of the awarded projects were not completed on schedule due to stakeholder issues.

### **2.5.2 - Example no. 02 – Construction of new Wembly stadium in London**

The Wembley stadium project was supposed to start on 2000 and finish on 2003 with a budgeted cost of 332 million pounds. Finally, the project had completed on 2007, four years after the first estimated opening and because of that long delay the costs for the project had raised to 757 million pounds, almost double from the estimated amount. The main cause attributed was the Stakeholder related issues.

### **2.5.3 - Example no. 03 - The East-West Highway megaproject, in Algeria**

The project idea of Algeria East-West Highway megaproject existed since 1975. It was scheduled for completion in the fourth quarter of 2009, but it was delivered behind schedule by five years due to various demands of the Stakeholders involved.

### **2.5.4 - Example no. 04 – Colombo Katunayake Expressway, Sri Lanka**

A four-lane dual-carriageway, designed for 100 kmph traffic (same as today's completed road), 30 km in length, to connect the Free Trade Zone and the airport was estimated to cost Rs. 5,544 million or \$ 110 million in 1991 and that was not implemented due to Stakeholder issues.

The cost of the currently completed expressway amounts to over Rs. 45,000 or US\$ 342 million. Thus the total costs amount to over Rs. 50,444 million or Rs. 50 billion, almost a 10-fold increase, compared to its initial estimate.

### **2.5.5 – Example no. 05 – Norochcholai Coal power plant (Lakvijaya Power Station), Sri Lanka**

Though the Construction of the facility began on 11 May 2006, with the first unit commissioning on 22 March 2011, the initiation of the Project goes as old as 1968. Since then, implementation of the project had been kept postponing due to various concerns of stakeholders, such as villagers, religious and environmental activists.

### **2.5.6 - Example no. 06 – Upper Kothmale Hydropower Plant (UKHP), Sri Lanka**

This project was initially planned in 1968 by the local authorities. Even after finalizing location at Thalawakele, in 1992 and completion of Environmental Impact Assessment in 1994, the construction works were started only in 2006 after obtaining court clearances and the plant commenced commercial operations in 2012 after overcoming the adverse involvement of Stakeholders.

### **2.5.7 - Example no. 07 – Construction of new Atomic Energy Board of Sri Lanka at Orugodawatta, Sri Lanka**

One of the most recent construction projects which has got affected due to stakeholder intervention is the construction of proposed building for Sri Lanka Atomic Energy Board at Orugodawatta.

Construction works has been suspended for more than a year without any decision on its way forward merely for the stakeholders protest against the proposed establishment.

#### **The common feature**

It is very evident that there is a very common salient feature of above seven projects which is implementation process had either been suspended or delayed due to issues raised by relevant stakeholders of the particular project.

Therefore Stakeholder Management has become a very critical to be dealt with at any stage of construction projects.

## **2.6 - Summary of the chapter**

This chapter mainly discussed the literature reviewed for identifying various types of models developed for stakeholder management of a project.

Majority of the models were found to be merely graphical presentations whereas there were 3 models presented by Prebel (2005), Colle (2005) and EI-Gohai et.al (2006) were of more significance in investigating the models for stakeholder management of Projects.

The six step model developed by Prebel (2005) was selected as the suitable model for project stakeholder management.

During the latter part of the chapter it was revealed that there are enough examples for projects that have been disputed due to intervention of stakeholders in Sri Lanka as well as overseas.

Therefore it was found that Stakeholder Management is a very important factor in effective Project Management.



## **3.0 - Research Methodology**

### **3.1 – Introduction**

The Chapter commences with a brief description on different research methodologies used in studies and the reason for selection of a qualitative type research methodology in this study.

As explained in the previous chapter, the six-step model developed by Prebel (2005) has been selected as the suitable model for stakeholder management in construction projects.

Out of seven example projects identified as disputed by stakeholders, during the previous chapter, the construction project of proposed building for Sri Lanka Atomic Energy Board has been selected as the case study for the study.

Under data collection section of this Chapter, a brief description has been given regarding the means of data collection.

The latter part of the chapter is dedicated to describe how the collected information were analyzed against the guidelines of the selected six-step model for stakeholder management.

### **3.2 – Theoretical background for the research methodology**

Research in common parlance refers to a search for knowledge. Meaning given by Oxford Dictionary for the term research is “a careful investigation or inquiry specially though search for new facts in any branch of knowledge”. Some people consider it as a movement: A movement from the known to the unknown”

In an academic context, the term Research is used in a technical sense. According to Woody (Kothari 1988) research comprises "defining and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating

data; making deductions and reaching conclusions; and finally, carefully testing the conclusions to determine whether they fit the formulating hypothesis".

There are currently three major research paradigms in the social and behavioral sciences. They are,

- Quantitative research – research that relies primarily on the collection of quantitative data.
- Qualitative research – research that relies on the collection of qualitative data.
- Mixed research – research that involves the mixing of quantitative and qualitative methods or paradigm characteristics.

Being a social research where outcomes/findings cannot be arrived at by means of statistical procedures or other means of quantification" (Strauss and Corbin, 1990, p. 17), in this study, a qualitative type case study based research methodology was used.

### **3.3 – Research Methodology**

Followings are the main step of the research methodology selected for this study.

- a. Selection of case study
- b. Data collection
- c. Data analysis & discussion

Each step will be briefly described as follows.

#### **3.3.1 - Selection of case study**

Under literature review, a number of construction projects were identified as disputed by the intervention of stakeholders.

Out of them, construction of new building for Sri Lanka Atomic Energy Board was selected as the case study project of the study for following reasons.

- Being a contemporary project
- Continuation of Stakeholder issues
- Convenience in obtaining data

### 3.3.2 - Data Collection

Data relevant to the selected Case study project was collected mainly through following three means.

a. Documentary analysis

All the documents were reviewed from the inception of the project till date with distinct focus on its inception

b. Event analysis

All the events which have taken place till date have been studied and listed down in chronological order for easy reference.

c. Analysis of stakeholder views

The views of relevant stakeholders were obtained from minutes of meetings, press conferences attended etc.

### 3.3.3 - Data Analysis & Discussion

Data gathered in different means described above, was compared with the selected Six-step Stakeholder Management model to identify the main issues encountered in construction projects and to make recommendations accordingly.

A sample of table was developed as shown below, in order to analyze the requirement of the model in each step and the application of the same in the case study project with remarks, if any.

Table 3.1 – Sample for data analysis

<b>Requirement as per the Model</b>	<b>Application in the Case study</b>
Requirement (Describe here)	Shall be discussed how the particular requirements have been applied or not in the case study taking the data collected into consideration

### **3.4 – Summary**

In this study, being a social research, a qualitative type of research methodology was used.

In this Chapter, the methodology to be adopted for data collection was discussed. Data was collected by three main modes namely, by documentary analysis, events analysis and by analysis of relevant stakeholders' views.

The latter part of the Chapter describes how the collected data was analyzed by means of the guidelines of each & every step of the selected six-step model for stakeholder management.

## **4.0 - Data collection and analysis**

### **4.1 – Introduction**

This chapter discusses the details of the selected case study, data collection and analysis of the research study.

At the outset of the chapter, the background of the selected case study project has been discussed.

In the next part of the chapter, focus was given to collection of data related to the case study project. The qualitative data collected by means of documents & events analysis, and analysis of stakeholder views have been recorded in chronological order, as described in the earlier chapter of Research methodology.

Above data was analyzed against the guidelines recommended in selected six-step model for stakeholder management

## **4.2 - Background of the case study project**

### **4.2.1 - New bridge construction project on Kelani river**

With the opening of Colombo-Katunayake Expressway (CKE) connecting the Sri Lankan capital to Bandaranaike International Airport, at Katunayake in October 2013, there is a considerable increase in the traffic entering the Colombo city. The capacity of existing New Kelani Bridge will not be sufficient to cater to such heavy traffic volume.

Major developments in Colombo city and Colombo Port will further increase the traffic in this area (Ohashi, 2014). Therefore, Road Development Authority has decided to implement a project to construct a new elevated bridge adjoining the existing bridge with six lanes together with related elevated approach bridges and interchanges,

Due to the construction of this new bridge, mainly two government buildings, some of the residents and utilities had to be relocated. Those two government buildings were identified as Sri Lanka Atomic Energy Board (SLAEB) and the Automobile Engineering Training Institute (AETI).

Sri Lanka Atomic Energy Board is located at Orugodawatta, closer to Kelanitissa power station. This land was proposed to be acquired by Road development authority to construct the above proposed new bridge over Kelani River connecting the Colombo – Katunayake expressway and the Orugodawatta junction.

Accordingly, the Sri Lanka Atomic Energy Board (SLAEB) building was planned to be relocated and reinstated at a new location selected by relevant authorities in Thaladena area, Malabe, Sri Lanka.

#### **4.2.2 - Sri Lanka Atomic Energy Board (SLAEB) in brief**

The precursor to the establishment of the Atomic Energy Authority (AEA) is the Subcommittee on Atomic Energy established in 1957 under the Planning Council of the Government of Sri Lanka. Sri Lanka became a founder member of the International Atomic Energy Agency (IAEA) of the United Nations during the same year. The Radioisotope Centre of the University of Colombo was established in 1962 on the advice of IAEA experts who visited Sri Lanka in late 1950s.

The Atomic Energy Authority (AEA) was established in 1969 by the Act. No. 19 of 1969.

In twenty year period since 1969, the AEA developed to an organization of about 35 staff members with a Scientific Staff of about 10 specializing in Radiation Protection, Non-destructive Testing, Nuclear Medicine, X-ray fluorescence Analytical Methods, Food Irradiation, Rubber Vulcanization by Radiation, and Nuclear Electronics as described in their website [www.aeb.gov.lk/web](http://www.aeb.gov.lk/web)

However, even at this stage the AEA had no laboratory facilities of its own and used the facilities at the Radioisotope Centre on an informal basis. The other main drawback was the number of areas the AEA was involved, when compared to its Scientific Staff strength.

In early 90's, a firm decision was taken to establish laboratory facilities for AEA and a detailed Corporate Plan was prepared for the future development of the AEA. Funds were obtained from the Government to construct an office and a laboratory building for the AEA, improvements were made to organizational structure of the AEA by creating 5 new divisions, and the Scientific Programmes were significantly improved. The construction of the new building of the AEA was completed in 2001 and laboratory facilities were established for external monitoring of radiation workers, for calibration and maintenance of nuclear electronic equipment, non-destructive testing, radiation processing, gamma spectroscopic analysis, X-ray fluorescence analysis, radiation processing, and applications of nuclear tracers.

On 26<sup>th</sup> August 2002 Sir Arthur C Clarke opened the AEA new building officially, at its present location, Orugodawatta.

In 2015, The Atomic Energy Authority (AEA) has been repealed and two institutions namely "Sri Lanka Atomic Energy Board (SLAEB)" and "Sri Lanka Atomic Energy Regulatory Council (AERC)", have been established by the Sri Lanka Atomic Energy Act, No. 40 of 2014.

AERC was relocated in the new premises of National Center for Non-Destructive testing located in Kelaniya in 2015. Atomic Energy board of Sri Lanka remained their offices and other laboratories at Orugodawatta.

#### **4.2.3 - Proposed location of Atomic Energy Board of Sri Lanka at Halbarawa, Malabe**

As explained above, due to construction of new bridge over Kelani River, the Sri Lanka Atomic Energy Board was officially informed that they would be relocated to a new location allowing the RDA to acquire the present land for construction of land. Accordingly Urban Development Authority had proposed two lands to SLAEB, one from Pitipana, Homagama area and the other one from Halbarawa, Malabe.

Atomic Energy Board of Sri Lanka selected the land in Halbarawa, Malabe proposed by UDA as their new location.

Road Development Authority in the capacity of Client selected a Consultancy firm through National Competitive bidding procedure in 2014 and design responsibility was assigned to the Consultants.

Consultants submitted bidding documents for calling tenders for construction of above building through national competitive bidding procedure.

A contractor was also selected through national competitive bidding procedure and construction works were entrusted to a C1 grade contractor who commenced construction works on 02.04.2015.



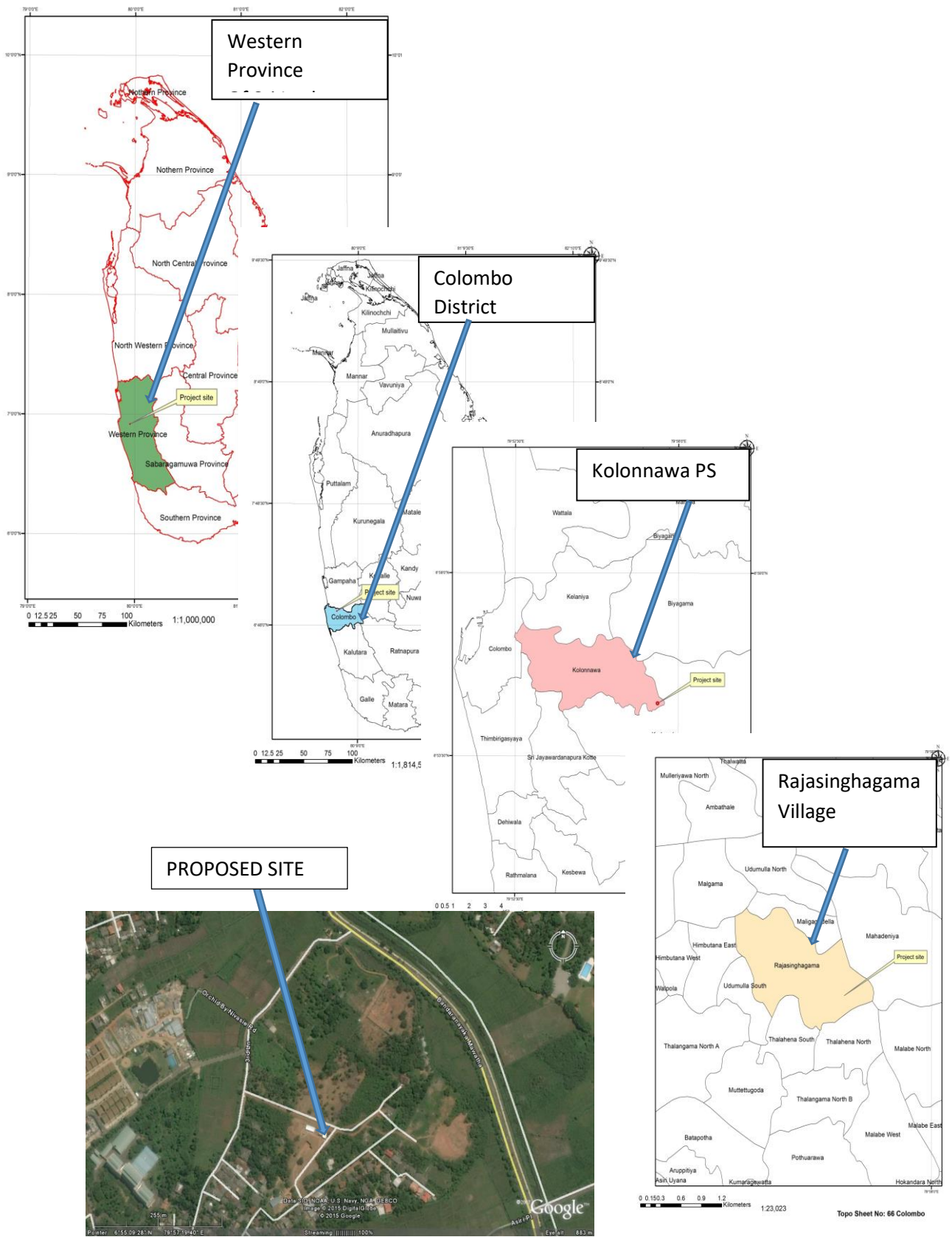


Figure 4 : Location of the project site

However, construction works could be continued only up to three months and Contractor was compelled to stop works due to protests of the villagers. The main demand of the villagers was that authorities are planning to establish a lab dealing with radioactive material which could cause lethal effects to the surrounding and peoples. They further objected that necessary approval had not been taken from relevant authorities for building construction.

It has been more than a year since temporary hold of construction work which has in turn incurred a significant effect on the master construction schedule for main contract for construction of new bridge over Kelani River.

#### **4.3 – Collection of data related to case study project.**

As it was previously described data related to selected case study project was collected by means of following sources.

- i. Documentary analysis
- ii. Events analysis
- iii. Analysis of stakeholder views

##### **4.3.1 – Documentary evidences related to initiation of the main project, the construction of new bridge over Kelani river**

- Road Development Authority (RDA) of the Ministry of Ports and Highways (MoPH) initiated a study with the assistance from the Government of Japan to improve the traffic condition around the New Kelani Bridge
- It was decided that a six lane bridge across the Kelani River adjacent to the existing New Kelani Bridge, and associated ramps structures, will be constructed to ease the above traffic conditions.
- Central Environmental Authority (CEA) had issued a Terms of references (TOR) on which an Environmental Impact Assessment (EIA) to be carried out.
- The EIA study is based on desk studies, field studies, stakeholder meetings and household surveys to obtain relevant latest field data and to assess project impacts on the Physical, Physio-chemical, biological and Social environments.

- The EIA report submitted by RDA conforms to the ToR issued by CEA.

#### **4.3.2 – Documentary evidences related to construction of Atomic Energy Board of Sri Lanka**

Documentary evidences related to procedure adopted to obtain approval from relevant government authorities are listed below in chronological order is as follows

Table 4.1 - Approval from Central Environmental Authority (CEA)

<b>DATE</b>	<b>DESCRIPTION</b>
2013.08.13	Sri Lanka Atomic Energy Authority (AEA) sent a letter to CEA seeking approval for the Project
2013.08.14	CEA informs AEA that Environmental Impact Assessment (EIA) is not required but requested to submit a project proposal
2014.03.07	AEA submitted Basic information questionnaire (BIQ)
2015.01.23	CEA carried out a site visit prior to granting approval.
2015.01.30	CEA requested further details of activities to be carried out from Consultants
2015.03.20	Consultants forwarded above details to CEA received from SLAEB on 19.03.2015
2015.05.05	CEA informs SLAEB that Initial Environmental Examination Report (IEER) is needed to be prepared
2015.05.21	A scoping meeting and site inspection were held in order to finalize the TOR of the IEER.
2015.06.16	CEA informs SLAEB that IEE should be carried out as agreed on 21.05.2015 – scoping meeting. Till then construction works should be stopped
2015.06.24	RDA requested CEA to allow the construction of boundary walls as a protective measure.
2015.07.29	Draft IEE report was submitted by SLAEB to CEA

2015.08.19	CEA issued their observations on the draft IEER submitted on 29.07.2015
2015.09.14	RDA requests CEA to grant approval for the construction works of the administration and laboratory buildings only excluding waste storage building
2015.09.15	SLAEB assures CEA that Waste storage building will not be constructed at Malabe
2015.09.17	CEA issued no objection letter to go ahead excluding the waste storage building facility as requested by SLAEB.

Table 4.2 - Approval from Urban Development Authority (UDA)

<b>DATE</b>	<b>DESCRIPTION</b>
2014.11.27	Sri Lanka Atomic Energy Authority (AEA) submitted application for obtaining preliminary clearance.
2015.02.02	UDA granted preliminary clearance subject to certain conditions
2015.03.03	RDA requested to proceed with construction prior to payment of balance amount of land
2015.03.09	UDA issued their No Objection for commencing Preliminary site works UNTIL full possession of site is handed over after making balance payment
2015.09.25	UDA issued building permit for construction

Table 4.3 - Approval form Atomic Energy regulatory Council (AERC)

<b>DATE</b>	<b>DESCRIPTION</b>
2015.02.26	AERC granted approval

Table 4.4 - Clearance from National Water Supply & Drainage Board (NWS&DB)

<b>DATE</b>	<b>DESCRIPTION</b>
2014.11.12	Application was submitted for clearance from NWS&DB
2015.09.16	Additional project details were submitted to NWS&DB
2015.09.18	Payment for clearance certificate was made at NWS&DB
2016.09.25	Clearance certificate was issued by NWS&DB

Table 4.5 - Clearance from Ceylon Electricity Board (CEB)

<b>DATE</b>	<b>DESCRIPTION</b>
2015.08.07	Clearance certificate was issued by CEB

Table 4.6 - Approval from Kotikawatta- Mulleriyawa Pradeshiya Sabha

<b>DATE</b>	<b>DESCRIPTION</b>
2015.07.14	Kotikawatta- Mulleriyawa Pradeshiya Sabha approved the survey plan
2015.08.07	Kotikawatta- Mulleriyawa Pradeshiya Sabha issued Street line certificate

Table 4.7 - Clearance from Fire Department

<b>DATE</b>	<b>DESCRIPTION</b>
2015.06.08	Received fire clearance for revised layout plans

### 4.3.3 - Events analysis related to construction of Atomic Energy Board of Sri Lanka (SLAEB)

Table 4.8 - Events related to construction of SLAEB at Malabe

EVENT NO.	DATE	DESCRIPTION
1	2015.03.19	<ul style="list-style-type: none"> <li>• Site was officially handed over to Contractor.</li> <li>• Contractor mobilized and commenced works</li> </ul>
2	2015.04.02	<ul style="list-style-type: none"> <li>• Foundation Stone laying ceremony was held.</li> <li>• During this event, some villagers came and inquired the Client about the activities of the proposed building and demonstrated a minor protest over any harmful construction.</li> </ul>
3	2015.06.15	Protest from Villagers over storm water discharging system to the surrounding area.
4	2015.06.15	CEA had informed through SLAEB to stop construction works of the project
5	2015.06.17	Construction works of the Project were temporarily suspended
6	2015.06.22	A complaint has been lodged by Villagers at Human Rights Commission
7	2015.06.30	Public awareness program was held at SLAEB for villagers
8	2015.08.06	Meeting was held with Client regarding the suspension of works at site
9	2015.09.25	Meeting held with participation of all members of Kotikawatta- Mulleriyawa Pradeshiya sabha at site
10	2015.10.09	<ul style="list-style-type: none"> <li>• Meeting was held at Maganeguma /RDA with participation of Hon. Minister of Highways and other stakeholders including Villagers.</li> </ul>

		<ul style="list-style-type: none"> <li>• Despite the explanations given by SLAEB and CEA, Villagers kept on opposing the setting up labs in the premises.</li> <li>• CEA was asked to take lead role in educating people and instructed RDA to revisit the option for re-routing the bridge.</li> </ul>
11	2015.10.21	<ul style="list-style-type: none"> <li>• Meeting was held with Chairman/CEA at the CEA head office.</li> <li>• CEA explained how this project was excluded from the requirement of EIA.</li> <li>• Chairman/CEA suggested to arrange ground level discussions to educate people</li> <li>• He further informed SLAEB to get the expert advice from AERC, being the regulatory body of this subject in above awareness meetings</li> </ul>
12	2015.10.23	<ul style="list-style-type: none"> <li>• Awareness meetings with Divisional Secretariat and chief incumbent of the temple of the area was held.</li> </ul>
13	2015.10.30	Public awareness program at SLAEB for villagers regarding the recommencement of construction of works
14	2015.12.28	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> hearing of the Human rights commission was held.</li> <li>• After hearing to both parties Inquirer/HRC suggested to call independent reports firstly from UDA to see whether the proposed location is suitable for the purpose as per their zoning arrangement and secondly from CEA on their approval for this construction.</li> <li>• Villagers were not in agreement to base the final decision of the commission based on only the AERC claiming that AERC cannot be considered neutral even though they are the regulatory body in Sri Lanka.</li> </ul>

15	2016.02.03	Meeting with Consultants to relocate the Storage building to Orugodawatta present land
16	2016.02.06	<ul style="list-style-type: none"> <li>• Meeting with senior advisor to the Hon. Prime Minister was held.</li> <li>• A firm decision was taken not to construct the building at Malabe but it will be constructed at an adjacent land in Orugodawatta.</li> </ul>
17	2016.02.08	Meeting with Consultants to relocate the main building s to Orugodawatta new land
18	2016.02.12	A meeting was held with the member of parliament of the area to discuss construction at Orugodawatta
19	2016.02.29	Meeting with Consultants to discuss construction at Orugodawatta
20	3016.03.02	Meeting with Consultants, SLAEB and RDA – Agreed to finalize the brief for main building at Orugodawatta
21	2016.03.09	Meeting with Consultants to agree on a time schedule for constructing on a new location
22	2016.04.11	Colombo district development committee meeting was held where the relocation of SLAEB was discussed. Villagers protested over the construction.
23	2016.05.18	Cabinet Committee on Economic Management held on 18.05.2016, it was decided to go ahead with the project as planned and recommence construction activities at Halbarawa Malabe.
24	2016.06.08	The Cabinet Committee on Economic Management held on 08.06.2016 at the Parliament presided over by Hon. Prime Minister confirmed the decision taken at the previous meeting



25	Date was not found	<ul style="list-style-type: none"> <li>• A committee was appointed by Secretary to the Ministry Power &amp; Renewable Energy that will be chaired by a Senior Professor in Nuclear Science as the technical expert</li> </ul>
26	2016.06.10	1 <sup>st</sup> committee meeting was held Maganeguma/RDA
27	2016.06.24	2 <sup>nd</sup> committee meeting was held at Maganeguma/RDA
28	2016.07.03	<ul style="list-style-type: none"> <li>• Public awareness program scheduled at Village temple.</li> <li>• Not successful due to protest from Villagers</li> </ul>

#### 4.3.4 – Analysis of stakeholder views

(a) Road Development Authority as the Client of the Project is in the view that with the opening of Colombo-Katunayake Expressway (CKE) connecting the Sri Lankan capital to Bandaranaike International Airport in October 2013, there has been a considerable increase in the traffic entering the Colombo city and the capacity of existing Kelani Bridge will not be sufficient to cater to such a heavy traffic volume.

Having examined this necessity, RDA initiated the project for construction of a new bridge over Kelani River adjacent to the existing bridge includes followings

It was noted that a number of buildings had to be relocated and lands to be acquired prior to commencing construction of main project. Atomic Energy board is one of the buildings identified as to be relocated accordingly.

(b) According to the villagers' points of view the proposed Atomic Energy Board facility should not be established in Halbarawa because it may create many health hazards to the area.

Villagers further made allegations that they were not adequately educated/disclosed regarding the facilities to be constructed initially. They further claimed that by the time of commencing construction works any of due approval had not been obtained from relevant authorities.

As the End User of the Project, the Atomic Energy Board of Sri Lanka strongly believe that protests are being made with no proper technical basis but purely due to baseless fears. They assure that there is no possibility of a radiation leakage to the environment due to the activities of laboratories, as villagers fear.

(c) Central Environmental Authority as the responsible institute for giving environmental clearance for the project believes that they had not been sufficiently informed of the activities of the institution.

However, with subsequent developments, they had decided to obtain a comprehensive report regarding the activities of the Atomic Energy board and materials being used.

#### **4.4 – Data Analysis**

Data collected above will be analyzed against the guidelines recommended by each step of the selected six step model for stakeholder management and the same will be described as follows

##### **4.4.1 - Analysis of Step 1: Stakeholder Identification**

It was very evident that primary stakeholders had been very clearly identified. RDA as the client of the project, had identified SLAEB as the End user, Consultant for design and construction supervision, the Contractor for construction of the building and finally both JICA and GoSL as Donor agencies etc.

Secondary stakeholders were identified as villagers and their representatives including political authority of the area those who are not directly involved in the operation of the project activities but assumed to be affected by the activities of the Project.

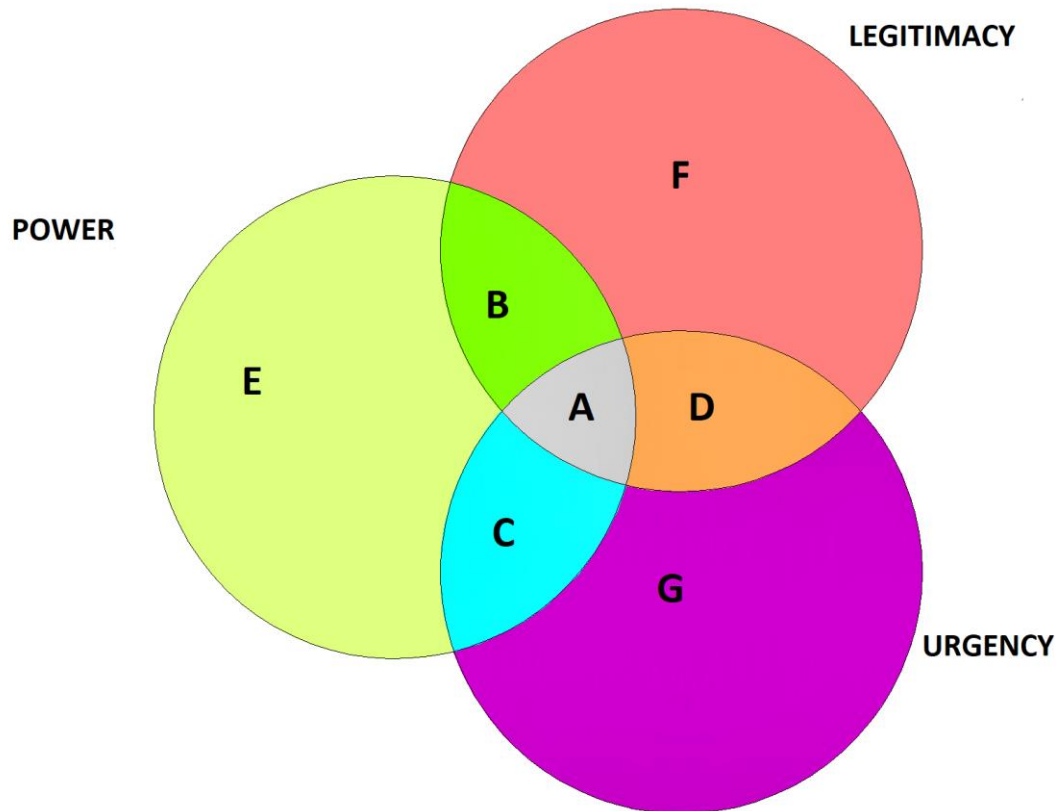
Client had identified public stakeholders of the project with whom primary stakeholders were directed to deal in obtaining required approvals for construction works. They included Central Environmental Authority (CEA), Urban Development Authority (UDA) Atomic Energy Regulatory Commission (AERC) etc.

Above analysis can be summarized into a table as follows.

Table 4.9 - Step 01 : Identification of Stakeholders

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
<p>Identification of Primary Stakeholders</p>	<p>Following Primary stakeholders were identified as confirmed and described by Client’s representative as follows.</p> <ul style="list-style-type: none"> <li>a. Client - Road Development Authority (RDA)</li> <li>b. End User - Atomic Energy Board (AEB)</li> <li>c. Consultants</li> <li>d. Contractor</li> <li>e. Donor agencies (JICA)</li> </ul> <p>It is evident that Project had been approved by donor agency and relevant Procurement committees since Primary stake holders have been clearly identified.</p>
<p>Identification of Secondary Stakeholders</p>	<p>Following Secondary stakeholders were identified by End User.</p> <ul style="list-style-type: none"> <li>a. Villagers</li> <li>b. Customer companies</li> </ul> <p>Having identified these stakeholders only, End User had selected the land in Malabe due to easy access</p>
<p>Identification of Public Stakeholders</p>	<p>Following public stakeholders were identified during the initial tag as confirmed by representatives of Client ,End User and Consultants</p> <ul style="list-style-type: none"> <li>a. Local Government bodies</li> <li>b. Central Environmental Authority (CEA)</li> <li>c. Atomic Energy Regulatory Council (AERC)</li> <li>d. Political Authority</li> </ul> <p>Relevant approvals from regulatory bodies had been applied and received, accordingly.</p>

Above identification of Primary, Secondary and Public stakeholders can be further categorized based on their possession of three attributes of Power, Legitimacy and Urgency.



- Group A – Definitive Stakeholders [e.g. Client (RDA), End User (AEB), Contractor, Consultant, Donor (JICA)]
- Group B - Dominant Stakeholders [e.g. Central Environmental Authority (CEA), Urban Development Authority (UDA)]
- Group C – Dangerous Stakeholders (e.g. Local political authority)
- Group D – Dependent Stakeholders (Not identifiable in this case study)
- Group E – Dormant Stakeholders (e.g. Local Government bodies, Public)
- Group F – Discretionary Stakeholders [e.g. Atomic Energy Regulatory Council (AERC), CEB. NWS&DB]
- Group G – Demanding Stakeholders (Villagers, food importers)

Figure 5 : Project Stakeholders based on possession of attributes

#### **4.4.2 - Analysis of Step 2: General Nature of Stakeholder Claims**

Even though the stakeholders have been definitely identified in the Step 1, it was not very clear to analyze how the general nature of their claims were categorized into 3 groups of equity, economic and influencer nature as described in the 2<sup>nd</sup> step of the model.

##### **a. Claims of equity stakeholders**

Equity stake claims which arise from primary stakeholders were clearly identified. The scope of the project had been formed based on the stakeholder claims with equity power since they are key stakeholders of the project.

##### **b. Claims of economic stakeholders**

The primary customer of the SLAEB is the government for whom the institute is responsible and accountable. However there are a number of other customers with whom the organization deals with, e.g. the food importers.

Thus, the stakeholder claims with economic stakes have been considered especially in selection of land. Generally, food items are imported through port and until safety clearance is issued from SLAEB, customs will not allow importers to clear their imported goods. For this purpose, it is essential that this institute is located at a place with convenient access to and from Ports. This is the reason SLAEB has more preference on Halabarawa more than the other alternative of Pitipana, Homagama.

However, it was not observed that the claims of the main economic stakeholders, i.e. villagers were not identified. Villager's allegations was that their interests and claims were not taken into consideration in this Project.

##### **c. Claims of Influencer stakes**

Assessment of claims from influencer such as government organizations have been taken into significant consideration by initiating approval procedures in advance. However, claims from environmental and social groups have not apparently been addressed with equal importance.

Above analysis can be summarized into a table as follows.

Table 4.10 - Step 02: General Nature of Stakeholder Claims

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
Equity claims of primary stakeholders	By Data analysis, it was revealed that claims of primary stakeholders have been clearly identified. For examples, End user’s requirements had been well addressed in the designs prepared by Consultants. Client’s interests have been identified and addressed by selecting a capable contractor to construct the building.
Claims of economic stakeholders	<p>During the documentary analysis it was revealed that some of the economic stakeholders have been clearly identified whereas some of the stakeholder claims have not been identified.</p> <p>For examples claims of food importers who are the main customers of SLAEB have been identified by selecting a location with easier access for them to reach, as confirmed by SLAEB.</p> <p>At the same time, claims of neighboring villagers’, as they voiced during their protest campaigns, seems to have not been very clearly identified and they had not been enough involved in the project.</p>
Claims of Influencer stakeholders	Claims of Influencer stakeholders such as regulatory bodies (e.g. local authorities, Urban Development Authority) had been clearly identified. Documentary analysis proved that all the requirements of these stakeholders had been identified and fulfilled. However, it was also revealed that Due to some communication gaps, some stakeholders claimed that their requirements had to be re-attended.

#### 4.4.3 - Analysis of Step 3: Determine Performance Gaps

Under this step of determination of performance gap, there are four sub activities to be carried out, as follows.

- Define stakeholder expectations
- Conduct performance audits
- Reveal gaps
- Explore stakeholder influence strategies

From the data collected in this project, it was revealed that there had been performance gaps in certain activities of the project due to various reasons.

Followings are only two of them.

- a. Issues related to Approval from Central Environmental Authority (CEA)
  - It was very evident that there were some communication gaps when dealing with some of the key government organizations such as Central Environmental Authority (CEA).
  - The initial requirement of CEA was a simple appraisal but not a detailed environment impact assessment (EIA).
  - However, when the when the public protest erupted, CEA requested to carry out a detailed EIA study.
  - CEA claims that they had not been provided with proper information about the project and based on available data they noticed that this project can be exempted from EIA required projects list.
  - However, delay in issuing CEA clearance made Urban Development Authority (UDA) not to issue the building permit prior to commencing the project. Client had obtained only a no objection letter from UDA to carry out preliminary site works and based on this, client made arrangements to proceed with the project due to urgency of this national project, with pending building approval.
  - When the construction works were on hold due to protest, Client requested approval from Local government authority to construct the boundary wall for protection of site. This was also rejected referring the public protest.

- Thus a clear gap between expectations of approving authorities and the project objectives was observed.

b. Public protest from Villagers

- One of the main allegations of the protestors was that this facility should have been established in a remote area but not in a populous area like Malabe.
- People were in the opinion through-out the protest that this will create a huge environmental impact during the functional stage.
- Accordingly a gap between project core team and the villagers was also observed.

Above analysis on two events can be summarized into a table as follows.

Table 4.11 - Step 03: Determine Performance Gaps in obtaining approval from CEA

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
Define stakeholder expectations	Documentary analysis revealed that there was a gap in defining the expectations of CEA. The initial requirement of a simple appraisal was not sufficient to grant clearance for the project, when the public protest had commenced.
Conduct performance audits	According to End User, there was no reason to carry out audits since initial requirements were very obvious to the project team. However, the gap was revealed only when the CEA requested for an EIA to be carried out.
Reveal gaps	
Explore stakeholder influence strategies	During documentary analysis, it was noted that Client, End user and Consultants had identified the influence strategy of CEA at the beginning of the project and however, with changes in initial requirements, Project deliverables had been delayed by influence strategy of CEA.



Table 4.12 - Step 03 : Determine Performance Gaps in dealing with Villagers' protest

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
Define stakeholder expectations	During documentary analysis, it was not revealed that Villagers' expectations were clearly identified/defined. However, Client informed that formal notifications had been forwarded to divisional secretary which had not effectively conveyed to the villagers.
Conduct performance audits	No audits were carried out to reveal gaps of expectations and deliverables of the villagers
Reveal gaps	
Explore stakeholder influence strategies	Influence strategy of villagers was not identified since beginning of the project.

#### 4.4.4 - Analysis of Step 4: Prioritize Stakeholder Demands

In this step, Stakeholder salience in the project should be determined based on three attributes of Power, legitimacy and urgency.

Accordingly, the importance of the Stakeholders are assessed and their demands should be identified and prioritized.

It is not clear that sufficient effort has been made to determine stakeholder salience/importance based on above 3 attributes and prioritize them as suggested in the Step 4.

However, the priority order of different stakeholders attached to this project were identified and listed in the descending order as follows.

Priority No. 01 - Demands of Interest groups with the three attributes

-Core Stakeholders e.g. Client, End User, Consultants, Contractor

Priority No. 02 - Demands of Expectant Stakeholders (two attributes only)

- Dominant stakeholder (those who have power and legitimacy, but no urgency)
- Dependent stakeholders (legitimacy and urgency, but no power)
- Dangerous stakeholders (they have urgency and power, but no legitimacy).

Priority No. 03 - Demands of Latent Stakeholders (only one attribute)

- Inactive /Dormant stakeholders (power only, but no legitimacy or urgency)
- Discretionary stakeholders (legitimacy only, but no power or urgency)
- Demanding stakeholders (urgency only, but no power or legitimacy)

It is noted that due to complexity of the project and involvement of the stakeholders, it is quite difficult to clearly identify the exact category of each stakeholder based on its salience.

Because of this, the assessment on the importance of various stakeholders has not been very successful. For example, Villagers have not been considered a very significant stakeholder in this project.

According to the model, they would have fallen into demanding stakeholder category whose demands should have been taken into consideration. However, ultimately they had become frustrated and ultimately were disastrous to the project.

Other important factor to be considered is that some insignificant stakeholders may transfer to a different and significant category by gaining an attribute of aligning with another stakeholder category.

Above analysis can be summarized into a table as follows.

Table 4.13 - Step 04 : Prioritize Stakeholder Demands

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
Determine stakeholder salience (Power, legitimacy, Urgency) and Prioritize demands	Documentary analysis reveals that salience of stakeholders had been identified and their importance had been assessed. For example in order to obtain statutory approvals, the priority order had been followed. However, as Client informed, being a national priority project with a number of key stakeholders, the salience of villagers as a stakeholder had not been identified. Hence, their demands had not been prioritized at the initial stage.
Assess the importance of various stakeholders	

#### **4.4.5 - Analysis of Step 5: Develop Organizational Responses**

Having identified performance gaps and prioritized demands to a certain extent, Client had taken various measures to develop organizational responses especially at the latter stage of the project.

Various platforms had been organized to initiate direct communication with relevant stakeholders specially protesting villagers.

Some of the initiatives taken by the Project are described below.

1. A number of awareness program had been organized for which villagers had been invited to take part.  
Protestors never bothered to change their pre-determined mind set to accept technical explanation from experts.
2. Contractor was ready to grant certain job opportunities for the villagers in the project but it was not accepted.

3. The Client, at a certain stage, agreed to arrange some foreign educational tours for some identified educated group of people from the village to visit similar establishments in the world to witness how they operate.  
Such partnering and collaborative efforts had been taken by the Project but they were not successful for poor response from the protestors.
4. As identified during this process, the project had taken initiatives to revise project objectives as well. e.g. source storage buildings that were critically highlighted by protestors were withdrawn from the scope of project.
5. Finally, a committee had been appointed by the Ministry to educate villagers and to partner with them to collectively set goals & develop policies and strategies to re-define project goals.

Above information clearly proves that enough actions had been taken at the latter stages of the project to develop organizational responses to suit stakeholder's demands.

Above analysis can be summarized into a table as follows.

Table 4.14 - Step 05 : Develop Organizational Responses

<b>Requirement as per the Model</b>	<b>Application in the Project</b>
Develop Organizational Responses	<p>During analysis of events and stakeholders views, it was evident that various steps have been taken to develop organization response to suit the prioritized Stakeholder demands.</p> <p>For example, scope of the project had been revised by removing certain units and then many awareness programs had been arranged to educate people.</p> <p>Also many collaborative initiatives had been proposed to work together with Villagers and a special committee had been appointed to cater the demands of the villagers.</p>

#### **4.4.6 - Analysis of Step 6: Monitoring and Control**

The main objective of this step was to monitor and control the set performance goals and agreed objectives of the Project up to step no. 05.

Unfortunately, the project never reached to this stage due to suspension of work activities at site.

## **5.0 – Summary, Conclusion & Recommendations**

### **5.1 – Summary**

Stakeholder Management has become a vital factor in successful completion of any construction project irrespective of its nature, scale or geographical location etc.

Literature reveals that there are plenty of national and international projects which have ended up as failures after being victimized to poor Stakeholder Management in projects. Some of the examples include construction of Wembly stadium in United Kingdom, Construction of East-West Highway in Algeria, Colombo Katunayake Express way & Norochcholai coal power plant in Sri Lanka. The common salient feature of all the above projects was observed as the issues related to stakeholders involved in the respective project.

Under circumstances, it was very important to investigate whether the Stakeholder Management is being effectively implemented in construction projects in Sri Lanka.

Accordingly, the research objectives were set as follows.

- a. To identify a suitable model for Stakeholder Management in construction projects.
- b. To apply the selected model in a construction project disputed by stakeholders in order to identify the main issues in stakeholder management in construction industry.
- c. To recommend how to avoid above issues in future similar projects

In a social research, outcomes/findings cannot be arrived at by means of statistical procedures or other means of quantification. Therefore, in order to achieve above objectives a case study based qualitative type research was selected with a methodology as described below.

1. Literature review

A literature review was carried out to identify different models developed for stakeholder management and to select a suitable model for stakeholder management in construction projects.

2. Selection of a model

A suitable case study project was selected to apply the selected management model to achieve project objectives.

3. Data Collection

Data collection was mainly carried out in three streams in order to identify the gaps in stakeholder identification in the case study project.

They are,

a. Documentary analysis

Documents were reviewed from the inception of the project till date with distinct focus on its inception.

b. Event analysis

Events which have taken place till date were studied and listed down in the chronological order for easy reference.

c. Analysis of stakeholder views

The views of relevant stakeholders were obtained from minutes of meetings and press conferences attended etc.

4. Data Analysis & Discussion

Data gathered in different means described above, was compared and analyzed using the guidelines of the model selected during the literature review in order to investigate achieve research objectives.

During the literature review, it was revealed that despite the fact that sufficient theoretical knowledge has been gained on this subject, not much effort has been taken to integrate this knowledge and to formulate a process model for Stakeholder Management for construction industry. Almost all the models developed are for the business industry only and most of the models are merely the graphical interpretations of the stakeholder management theories.

However, following three models were identified during the literature review for further analysis as a suitable management model.

Model No 01 - 10-step stakeholder management model for ethical decision making

Model No 02 – The semantic model developed for stakeholder inputs

Model No 03 – The six step model for comprehensive stakeholder management

It is noted that all three models identified during the literature review were developed for managing stakeholders in business industry but not in projects. Therefore, it is very important to select a model that can be applied in the construction projects.

However, there was no prior studies carried out to identify criteria for selection of a more suitable model out of the available models. Therefore, following criteria were used for the evaluating and selection of the most suitable model

- a. The selected model shall have a logical presentation of activities (not merely a graphical explanation).
- b. It shall comply with basic Project Stakeholder Management aspects described in PMBOK (Project Management Body of Knowledge)
- c. Shall be able to apply in any general project

Based on above assessment, it was noted that both 10-steps stakeholder management model developed by Simon Colle in 2005 and the six-step comprehensive management model developed by Prebel in 2005 can be used as a suitable model for stakeholder management in a Construction Project.

However, the six step model developed by Prebel, was selected as the suitable model considering its simplicity over the 10- step model developed by Colle.

During literature review it was identified that there are many Projects internationally as well as locally that failed to produce expected deliverables due to stakeholder issues. Of those many projects, Construction of new building for Sri Lanka Atomic Energy Authority was selected as the case study for following reasons.



- i. Being a contemporary project
- ii. Continuation of stakeholder issues
- iii. Convenience in obtaining data

In next step, data relevant to the selected case study project was collected mainly through,

- i. Documentary analysis
- ii. Event analysis
- iii. Analysis of stakeholder views

During analysis of data, data gathered above was compared with the guidelines of the above selected 6 step comprehensive stakeholder management model.

Prebel in his model under Step 4 : Prioritization of Stakeholder Demands, states that Latent stakeholders with only one attribute (e.g. Dormant stakeholders, Discretionary stakeholders & Demanding stakeholders) will have little salience to management of the project whereas more attention is to be paid only to key Stakeholders those who possess more than one of the attributes of power, urgency and legitimacy.

In this study, it can be clearly observed that Stakeholders have been identified based on their possession of attributes and their salience towards the Project has been assessed accordingly.

However, even with the strict adherence to the guidelines of Prebel Model in identification and prioritization of Stakeholders, the Project could not be continued smoothly due to enormous pressure exerted against the Project. They didn't have any power or legitimacy to challenge the Project but they had a great concern only. Their strength as at 02.04.2015 was remarkably low.

However, when the villagers made their second protest against the Project on 15.06.2015, it appeared that villagers approach had been strengthened by their effort

to access the other stakeholders such as Central Environmental Authority (CEA), Urban Development Authority (UDA) etc.

This dynamic approach was continued throughout the Project, making such less significant individual groups into stronger and more influential.

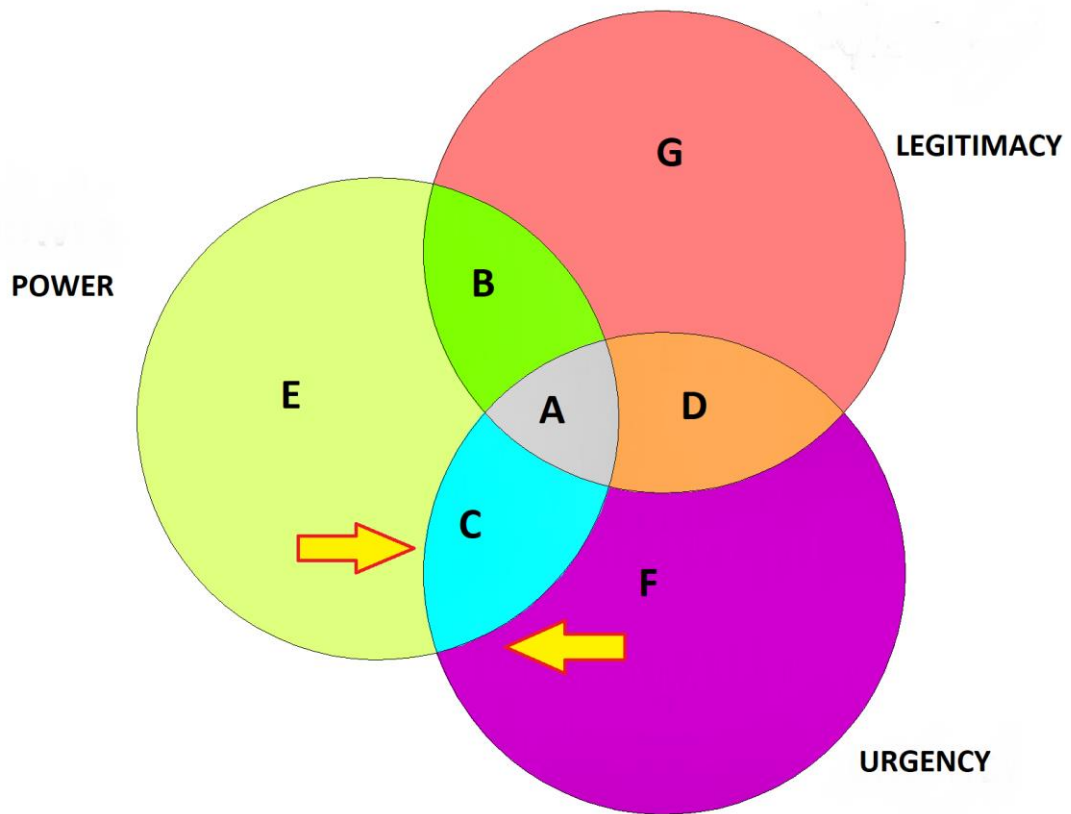
It was very clear that at the initial stages of the Project, all the single attribute stakeholders were managed as individuals. For example, when villagers demonstrated their first protest on 02.04.2015, they appeared to be an isolated group.

In other words, the main issue in Stakeholder Management of this case study Project was that stakeholders with only one attribute were not isolated throughout the project duration but they joined with other stakeholders to become stronger and more influential.

This risk of one attribute stakeholder gaining access to another attribute was well defined under the Step 04 – Prioritization of stakeholder demands of Preble's model and this aspect had not been identified and monitored effectively in the case study.

This dynamic tendency of the single attribute stakeholders gaining access to other stakeholders fall into three main categories as follows.

CASE NO. 01 - Stakeholders with only Power attribute (Dormant) and Urgency attribute (Demanding) moving towards each other.



Group A – Definitive Stakeholders [e.g. Client (RDA), End User (AEB), Contractor, Consultant, Donor (JICA)]

Group B - Dominant Stakeholders [e.g. Central Environmental Authority (CEA), Urban Development Authority (UDA)]

Group C – Dangerous Stakeholders (e.g. Local political authority)

Group D – Dependent Stakeholders (Not identifiable in this case study)

**Group E – Dormant Stakeholders (e.g. Local Government bodies, Government)**

**Group F – Demanding Stakeholders (Villagers)**

Group G – Discretionary Stakeholders [e.g. Atomic Energy Regulatory Council (AERC), CEB. NWS&DB]

Fig 6 (a) – Combination of stake holders - Power & Urgency attributes

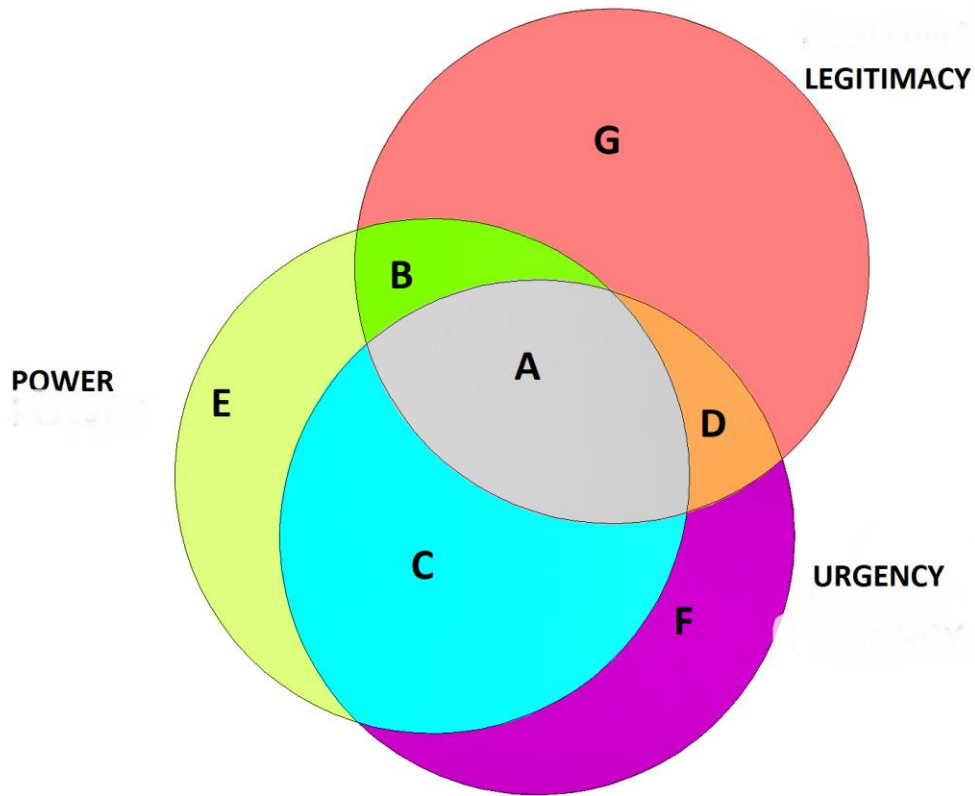
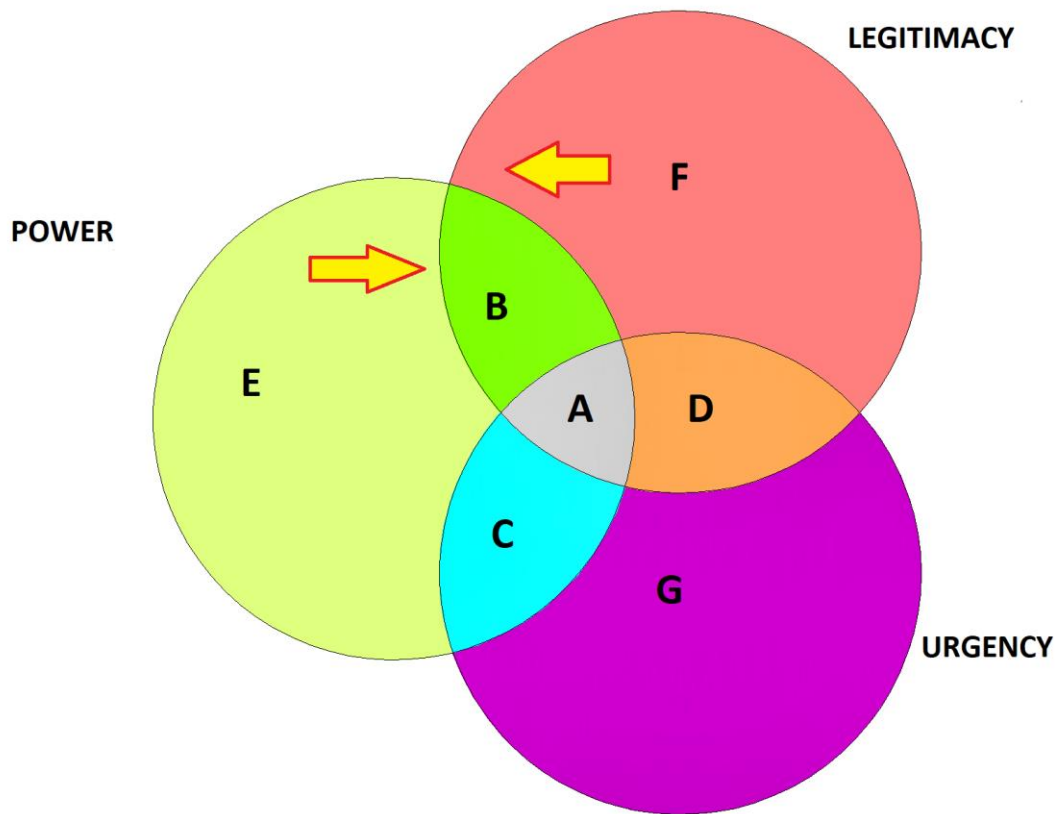


Fig 6 (b) – Combination of stakeholders - Power & Urgency attributes

As a result, the combination of two attributes of Power & Urgency makes the Group C : Dangerous stakeholders stronger and higher in numbers while diminishing the number of Dormant and Demanding stakeholders.

In the case study it was observed that when villagers were isolated at the beginning of the Project they were not very strong but when they got access to higher political authority through their representatives Villagers created a huge impact on the Project. Villagers were so strong after they made this combination that they could take up this matter to the ministry level and above which made a huge adverse impact on the Project.

2. CASE NO. 02 - Stakeholders with only Power attribute (Dormant) and Legitimacy attribute (Discretionary) moving towards each other.



Group A – Definitive Stakeholders [e.g. Client (RDA), End User (AEB), Contractor, Consultant, Donor (JICA)]

Group B - Dominant Stakeholders [e.g. Central Environmental Authority (CEA), Urban Development Authority (UDA)]

Group C – Dangerous Stakeholders (e.g. Local political authority)

Group D – Dependent Stakeholders (Not identifiable in this case study)

**Group E – Dormant Stakeholders (e.g. Local Government bodies, Government)**

Group F – Demanding Stakeholders (Villagers, food importers)

**Group G – Discretionary Stakeholders [e.g. Atomic Energy Regulatory Council (AERC), CEB. NWS&DB]**

Fig 7 (a) – Combination of stakeholders - Power & Legitimacy attributes

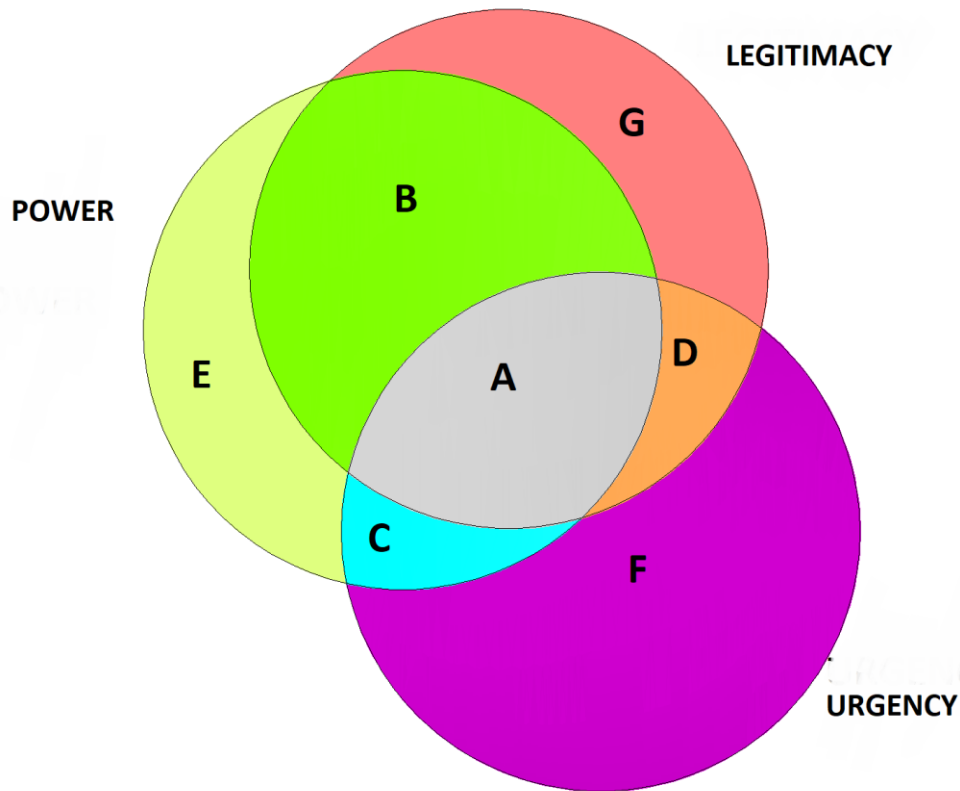


Fig 7 (b) – Combination of stakeholders - Power & Legitimacy attributes

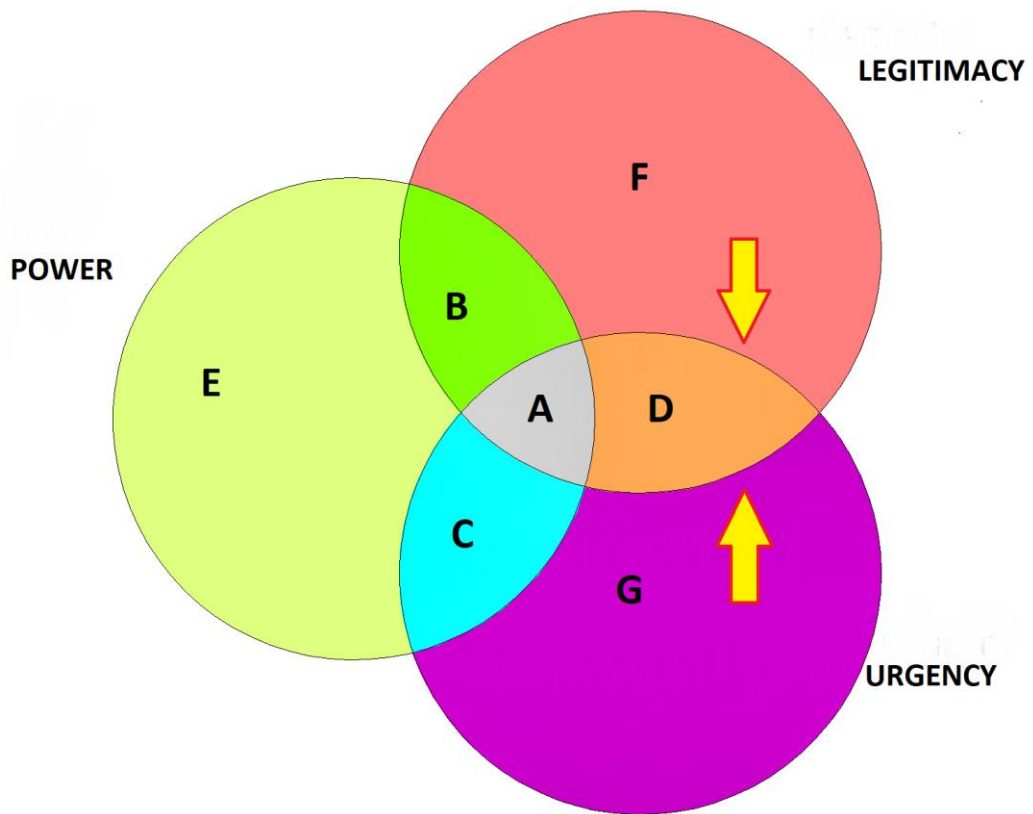
As a result, the combination of two attributes of Power & Legitimacy makes the Group B : Dominant stakeholders stronger and higher in numbers while diminishing the number of Dormant and Discretionary stakeholders.

In the case study, at its beginning two groups of Dormant and Discretionary Stakeholders e.g. Pradeshiya Sabha and other regulatory bodies were communicating with the Project independently. However, as the villager’s protests arise it was observed that those institutes start depending more on one other to issue necessary approvals.

Accordingly, the significance of individual stakeholders started diminishing whereas the adverse impact due to more interdependent relationship of stakeholders became more critical for the Project

This delayed adversely affected the continuation of the Project.

3. CASE NO. 03 - Stakeholders with only Legitimacy attribute moves towards Urgency only attribute stakeholders.



Group A – Definitive Stakeholders [e.g. Client (RDA), End User (AEB), Contractor, Consultant, Donor (JICA)]

Group B - Dominant Stakeholders [e.g. Central Environmental Authority (CEA), Urban Development Authority (UDA)]

Group C – Dangerous Stakeholders (e.g. Local political authority)

Group D – Dependent Stakeholders (Not identifiable in this case study)

Group E – Dormant Stakeholders (e.g. Local Government bodies, Government)

**Group F – Demanding Stakeholders (Villagers)**

**Group G – Discretionary Stakeholders [e.g. Atomic Energy Regulatory Council (AERC), CEB. NWS&DB]**

Fig 8 (a) – Combination of stakeholders - Urgency & Legitimacy attributes

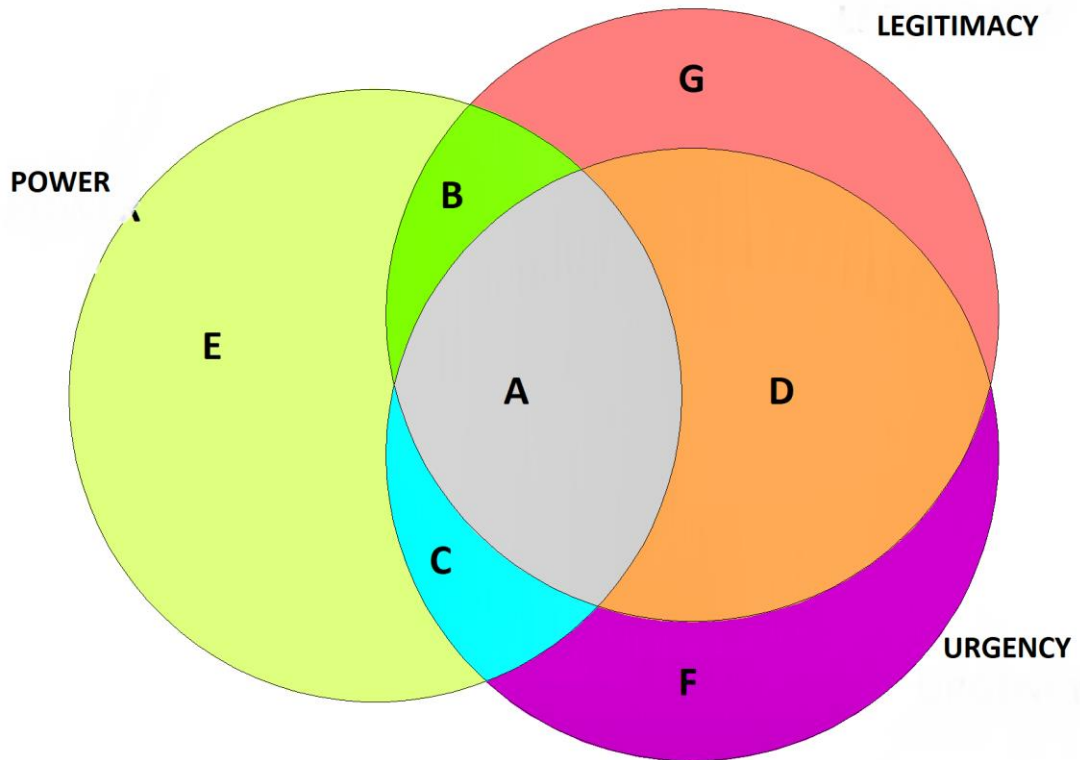


Fig 8 (b) – Combination of stakeholders - Urgency & Legitimacy attributes

As a result, the combination of two attributes of Urgency & Legitimacy makes the Group D : Dependent stakeholders stronger and higher in numbers while diminishing the number of Demanding and Discretionary stakeholders.

In the case study it was observed that when villagers were isolated at the beginning of the Project they were not very strong but when they got access to legitimate institutes like CEA, UDA etc. Villagers became more informative and could impose a huge impact over the Project. Villagers were so strong after they made this combination that they could take up this matter to the ministry level and above which made a huge adverse impact on the Project.



## **5.2 – Conclusion**

Out of many management models developed for Stakeholder management in business firms, the six step model introduced by Prebel (2005) could be considered as a more suitable model to be applied for Stakeholder management in construction projects.

Based on the findings of the case study, it was observed that the guidelines given in Prebel Model, i.e. Step 01 to Step 06 are only partially applied in construction projects in Sri Lanka.

The main issue in Stakeholder management of construction projects, as identified in this study is that more attention is usually paid on the key stakeholders with all three attributes of Power, Legitimacy & Urgency whereas latent stakeholders are given less significance.

However, with the finding of the study it was noted that there is a tendency of latent stakeholders to behave dynamically to gain access to other stakeholders and become more powerful and influential towards the Project.

In order to overcome similar issues in future Projects, it is recommended not only to study the individual impact of each latent stakeholders but to analyze their impact with every possible combinations of other stakeholders.

Once their combined impact is analyzed, appropriate measures should be taken to minimize their impact as given in the Preble Model.

## **5.3 – Limitations of the project**

Construction industry has a vast scope from buildings to infrastructure ranging from small scale to mega scale projects. Due to limited time availability, the study was limited to only one number of medium scale case study. The results would have been more generalized if the study could have been expanded to minimum two more construction project of similar scale.

## **5.4 – Recommendation on future projects**

It is recommended to expand the research scope to other construction projects of different types in nature, scale etc. to arrive at a more generalized conclusion on major issues encountered in project Stakeholder management and recommendations to overcome the same.

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