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**ROADS INVESTMENT AND ECONOMIC GROWTH:
SIMILARITY OR DIVERGENCE BETWEEN DEVELOPED AND
DEVELOPING COUNTRIES**

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Abstract

This research investigates how arguments for economic growth are perceived and advanced to promote road investment. In particular, it addresses the question of whether there is similarity or divergence between developed and developing countries given their different growth trajectories. In literature, the relationship between building roads and achieving economic growth is heavily reliant on quantitative tools while ignoring the socio-economic and political contextual details of developed and developing countries. Using the Aristotelian concept of *phronēsis*, the research undertakes a comparative case study involving New Zealand and Pakistan. *Phronēsis* is an intellectual virtue capable of incorporating practical problems and contextual issues in everyday life. The concept was operationalized for this thesis by devolving it into three main questions in which the roads policy direction, the associated processes and discursive pragmatism was explored. Detailed analysis of two major roading infrastructure projects, MacKays to Peka Peka (M2PP) in the Wellington region of New Zealand and a Ring Road in Lahore, Pakistan, shows that roads investment is promoted on the basis of national visions and policies without robust evidence of how economic growth will be achieved. The findings indicate that the national visions, related to case study projects, are not based on robust analyses and research but rather on strategic needs that advance the agenda of the powerful. The research found that the discourse of economic growth in each project was based on similar arguments about travel time saving, efficiency and employment growth regardless of public consultations. The research concludes that 'economic growth' is a niche created, advanced, and interpreted by power to achieve its strategic objectives in road development without contextual differences being considered in developed and developing countries.

Dedication

To my loving father Yaseen Chohan (late).

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Abbreviations

ACF	Advocacy Coalition Framework
ADP	Annual Development Programme
AMP	Asset Management Plan
ANT	Actor-Network Theory
AP	Assistant Professor
BCR	Benefit-Cost Ratio
BGA	Business Growth Agenda
BIM	Briefing to Incoming Minister
BOI	Board of Inquiry
BOT	Build, Operate, Transfer
BRT	Bus Rapid Transit
C&C	Command and Control
C&W	Communications and Works
CBA	Cost-Benefits Analysis
CBD	Central Business District
CE	Chief Engineer
CEO	Chief Executive Officer
CGE	Computable General Equilibrium
CM	Chief Minister
CMS	Critical Management Studies
CNZ	Connecting New Zealand
CPEC	China-Pakistan Economic Corridor
CRP	City and Regional Planning
CSTSL	Comprehensive Study on Transportation System of Lahore
DD	Deputy Director
DETR	Department of the Environment, Transport and the Regions
DHA	Defence Housing Authority
DIDR	Development-induced Displacement and Resettlement
EAD	Economic Affairs Division
EEM	Economic Evaluation Manual
EIA	Environmental Impact Assessment
EIC	Evidence-in-Chief
EIRR	Economic Internal Rate of Return
EPA	Environmental Protection Authority
EPD	Environment Protection Department
ESP	Economic Survey of Pakistan
FEF	Framework for Economic Growth
FWO	Frontier Works Organisation
GHG	Green House Gases
GM	General Manager
GOPB	Government of the Punjab
GPS	Government Policy Statement on Land Transport
GWRC	Greater Wellington Regional Council
HDI	Human Development Index
HEC	Higher Education Commission
H+T	Housing and Transportation
IBP	Incentive-based policies
IMPL	Integrated Master Plan for Lahore
IPENZ	Institution of Professional Engineers New Zealand
IRS	Investment and Revenue Strategy
ISDP	Integrated Strategic Development Plan (for Lahore Region)
ITP	Integrated Transport Planning
ITS	Intelligent Transport Systems
JHB	Jobs-housing balance
JHI	Jobs-housing imbalance
JICA	Japan International Cooperation Agency

Abbreviations

JV	Joint Venture
KCDC	Kapiti Coast District Council
LCCI	Lahore Chamber of Commerce and Industry
LDA	Lahore Development Authority
LGA	Local Government Act
LRN	Low Risk Notification
LRRRA	Lahore Ring Road Authority
LRR-NL	Lahore Ring Road – Northern Loop
LRR	Lahore Ring Road
LRR-SL	Lahore Ring Road – Southern Loop
LTDP	Long Term District Plan
LTMA	Land Transport Management Act
LUTMP	Lahore Urban Transport Master Plan
M2PP	MacKays to Peka Peka
M&A	Merger and Acquisition
MOT	Ministry of Transport
MP	Member of Parliament
MPA	Member of Provincial Assembly
MSSM	Making Social Science Matter
MTDF	Medium Term Development Framework
NDP	National Development Programme
NEC	National Economic Council
NESPAK	National Engineering Service Pakistan
NIP	National Infrastructure Plan
NLC	National Logistic Cell
NLTP	National Land Transport Plan
NOC	No Objection Certificate
NPV	Net Present Value
NTRC	National Transport Research Centre
NZCID	New Zealand Council for Infrastructure Development
NZEECS	New Zealand Energy, Efficiency and Conservation Strategy
NZG	New Zealand Government
NZRTF or RTF	New Zealand Road Transport Forum
NZTA	New Zealand Transport Agency
NZTS	New Zealand Transport Strategy
ONRC	One Network Road Classification
PAC	Public Accounts Committee
P&D	Planning and Development
PADT	Path Dependence Theory
PDWP	Provincial Development Working Party
PGS	Punjab Growth Strategy
PIAF	Pakistan Industrial and Traders Association
PML (N)	Pakistan Muslim League (Nawaz)
PML (Q)	Pakistan Muslim League (Quaid-e-Azam)
PMU	Project Management Unit
PODT	Power Dependence Theory
PPP	Pakistan People’s Party
PPP	Public-Private Partnership
PPR	Phronetic Planning Research
PSC	Project Steering Committee
PSDP	Public Sector Development Programme
PSS	Phronetic Social Science
PTI	Pakistan Movement for Justice Party (Pakistan Tahreek-e-Insaaf)
PTOM	Public Transport Operating Model
PTPS	Pakistan Transport Plan Study
PV	Present Value
QE	Queen Elizabeth
RDT	Resource Dependence Theory
RGNDI	Real Gross National Disposable Income
RLTP	Regional Land Transport Plan

Abbreviations

RLTS	Regional Land Transport Strategy
RMA	Resource Management Act
RONS	Roads of National Significance
RPC	Richard Paling Consulting
RPS	Regional Policy Statement
RPTP	Regional Public Transport Plan
RTC	Regional Transport Committee
RTF	Road Transport Forum
SACTRA	Standing Advisory Committee on Trunk Road Appraisal
SAHA	Saha International (Infrastructure Advisors)
SCMP	Stakeholder and Communication Management Plan
SET	Social Exchange Theory
SH1	State Highway 1
SID	Similarity, Identity and Difference
SJS	Safer Journeys Strategy
SOI	Statement of Intent
TR	Transport Representative
UET	University of Engineering and Technology, Lahore
UGS	Urban Green Space
UNDP	United Nations Development Programme
UOS	Urban Open Space
VFM	Value for Money
VOC	Vehicle Operating Cost
VTT	Value of Travel Time
WEB	Wider Economic Benefit
WLR	Western Link Road
WNC	Wellington Northern Corridor
WRS	Wellington Regional Strategy

CHAPTER ONE

Introduction

“In some remote corner of the universe”, begins Nietzsche in one of his early essays, “there once was a star on which clever animals invented knowledge. That was the most arrogant and most untruthful moment in ‘world history’” (Flyvbjerg, 1998b, p. 1).

1.1. A little boy and the experts

Shonka was my family servant. He was completely illiterate and lived with me in Lahore in the 1970s (Appendix One). He told me a story when I was ten. A truck got stuck under a bridge. The driver put his best efforts to drive it out but in vain. Some civil works experts, well-known for their competence, reached the spot. They started measuring various engineering parameters of the truck and the bridge so that it could be pulled out. They observed that, if the height of the truck could be reduced by two to three inches, it could be driven out. However, they remained unsuccessful in reducing the height of the truck by following their technical rules. An expert even suggested demolishing some parts of the bridge. A little boy of my age was watching the entire scene. He innocently spoke: “uncle, why don’t you puncture the tyres of the truck?” The experts punctured the tyres. It reduced the height of the truck and it came out. The experts were very surprised at the little boy’s practical wisdom and common sense but even more embarrassed at their stupidity for ignoring such a “little thing” despite being so competent.

Some lessons may be learnt from this story. Shonka was probably making a point that children, being non-experts, have more practical and informal knowledge than experts because experts mostly deal with problems according to their specialised knowledge. I will analyse this point in this thesis. The questions that arise include: How did the experts and the little boy perceive the problem? What process did they adopt in their respective approaches to resolve the problem? What arguments did they have in support of their respective approaches? And what solution did they suggest?

1.2. Background

With this story in the backdrop, Banister and Berechman (2001) attracted my attention in their discussion of the connection between transport investment and economic growth in developed countries. They divided their analysis at the national, regional and local levels. Their main finding suggested that positive economic externalities, scale and location of investment supported by effective policy, political, and institutional support can bring economic development (ibid). However, their approach was focused on developed countries only in which additional economic development was advocated in a context of already well-established roads infrastructure. In addition, they suggested that transport investments can complement the underlying political, policy and institutional conditions. This factor underscores how roads investment, politics, policy and decision-making are mutually conjoined. Banister and Berechman's (ibid) approach has three main limitations. First, they cannot generalize their investigation from developed to developing countries. Second, they do not adequately explain the relation between transport investment and economic growth, in the presence of an already well-developed infrastructure, because of competing economic, political, policy and institutional factors. Third, they even thought of de-coupling transport investments from economic growth, thus, suggesting that the relation between transport investments and economic growth remains unsettled. This makes the entire premise of connecting transport investment with economic growth dubious.

The authors do identify a social issue but they seem to address this issue on the basis of technical reasons only, similar to the experts' approach in the little boy's story. It is possibly because they attempted to model the relationship among various economic, political, social, environmental and spatial externalities in a deterministic manner rather than developing case-based contextual knowledge. As a result, they ended-up with a kind of paradoxical analysis – calling it a 'Catch 22 situation' (ibid, p.215) - marred by contradictions among various contextual urban forces in relating transport investment with economic growth. Metaphorically, they

may also be forgetting puncturing the truck tyres. This suggests they perhaps underestimated the context. They, therefore, investigate a case of developed countries only where there is already a well-established transport infrastructure. If context is included, this suggests two different investigations in developed and developing countries. This approach is better in the sense that it raises case-based contextual issues in developed and developing countries, compares and contrasts them and identifies the grey area between them. This approach is not intended to produce theory but aims to generate a thick narrative usually referred to as praxis (Flyvbjerg, 2001, pp. 25-37).

As Gauthier (1970) pointed out, there are competing claims about the relationship between roads investment and economic growth . Some authors (Hunter, 1965; North, 1955; Owen, 1964) suggest that the relation between roads investment and economic growth is positive. Other authors (Cootner, 1963; Fogel, 1964; Hawkins, 1962) argue that the relation is permissive. And others (Hirschman, 1958; Wilson, Bergmann, Hirsch, & Klein, 1966) argue that relation is negative. In this regard, Black (2001) argued that some myths and beliefs are very strong in positively linking roads investment with economic growth. He argues that planners 'look at what they suspect will occur' creating dubious practices in planning to justify roads investment for achieving economic growth (ibid). This thesis investigates the relation between building roads and achieving economic growth in developed and developing countries. In order to better define the context, Banister and Berechman's (2001) notion of 'transport investment' was replaced by 'roads investment'. Two road projects, one each from New Zealand and Pakistani cities, were selected, thus making them a dual case study research with the aim to generate contextual knowledge derived from two different perspectives [see, for example, Flyvbjerg (2006)]. This approach is better-suited for cases, such as New Zealand and Pakistan, very different in sizes, organizational cultures, locations and project budgets (ibid, p. 230).

1.3. The key terms and conceptual framework

It is observed that the social sciences have not contributed much to explanatory and predictive theory and the natural sciences have not contributed much to reflexive analysis and the discussion about norms, values and interests (Flyvbjerg, 2001, p. 3). In this regard, Aristotle's three virtues need attention: *episteme*, *techne* and *phronēsis*. *Phronēsis* usually refers to 'practical wisdom' or common sense (Flyvbjerg, 2004, p. 287). The term *episteme* mainly refers to scientific knowledge which is universal, invariable and context-independent (ibid). The term *techne* or technology is a craft and art which is pragmatic, concrete, variable and context-dependent as an activity (ibid). *Praxis* usually means a thick contextual narrative based on the logics and arguments encountered in power relations in a society.

This thesis is shaped conceptually by Flyvbjerg's (2004) Phronetic Planning Research (PPR) framework which focuses on four questions: Where are we going?, Who gains and who loses?, Is this development desirable? And, what should be done? The main discourse of the thesis presents an analysis of technical expertise vis-à-vis common sense, based on ground realities, in linking economic growth with roads investment in New Zealand and Pakistani cities using *phronēsis*.

1.4. The research questions and aim

The primary research question that this thesis examines is: *How are arguments for economic growth advanced to promote new road projects?* This question is examined through a study of two large transport infrastructure projects, one in a developed country and one in a developing country. Selecting two cases has many advantages such as producing cross-case analysis and drawing similarities and dissimilarities (Yin, 2004, pp. 55-85). In contrast to Banister and Berechman (2001), focusing on developed countries only, the two cases from developed and developing countries were selected to understand contextual variations in different contexts [see, for example, Flyvbjerg (2006, p. 230)]. In this perspective, contextual challenges refer to those case-based and context-dependent factors posing threats

to the practical implementation of large projects, particularly on economic, social, environmental and spatial fronts. Generalising contextual challenges for developed and developing countries is, therefore, misleading because they are determined by several competing forces such as project size, planning culture in an organisation, and the location and budget of a project (ibid).

The research investigates local planning issues and contextual realities, in New Zealand and Pakistani cities, to understand how arguments for economic growth are advanced by promoting new road projects in developed and developing countries. It presents policy and discourse analyses with a view to understanding those contextual challenges which inhibit economic growth despite massive investments in roads in two different contexts. The two road projects were chosen from New Zealand and Pakistan making them cases for developed and developing countries. As defined by the 2011 Human Development Index, New Zealand and Pakistan were treated as developed and developing countries (UNDP, 2011, p. 126). The PPR framework is also very supportive of conducting case-based studies, in developed and developing countries, with a view to generating contextual knowledge (Flyvbjerg, 2006, 2011).

1.5. The structure of the thesis

The thesis consists of ten chapters including this introductory chapter. Chapter 2 reviews literature on the link between roads investments and economic growth. Chapter 3 develops a conceptual framework based on PPR for addressing the research question. PPR, as an extended concept of *phronēsis*, not only provides a theoretical framework but also helps in developing methodological approach for this thesis. Chapter 4 outlines the research design. Using qualitative methods, this research investigates two roading projects in New Zealand and Pakistani cities. Chapter 5 presents data drawn from analysis of New Zealand transport policy documents to evaluate arguments on roads investment and their assumed link to enhanced economic growth and productivity. Chapter 6 explores the policy process by carrying out stakeholder analysis of the MacKays to Peka Peka (M2PP)

expressway project in the Wellington region. Chapters 7 and 8 present similar data for the Lahore Ring Road-Southern Loop (LRR-SL) project in the context of transport policy and planning in Lahore, Pakistan. Chapter 9 discusses the results by comparing the contextual challenges of M2PP and LRR-SL. It extends the theoretical understanding of *phronēsis*. It is argued that economic growth is not a quantitatively predictable phenomenon but is, rather, a weak argument or niche created by power. The practical reality of economic growth is, therefore, defined by ever-changing and contextually determined power relations. The rationality-power relational balance also constructs this niche. Therefore, promoting economic growth through roads investments, which is currently the practice in neoclassical economics, is not only context-insensitive but also misleading. Highlighting varying contextual transport policy issues in developed and developing countries, Chapter 10 concludes the research by stressing the need to introduce better practices in planning capable of mitigating the role of power in the roads decision-making.

CHAPTER TWO

Roads investment and economic growth

... the justification for discounting future consequences is based on expectations of continuous economic growth: If we will be ten times richer in the future, paying a cost of 1000 dollars will impact our welfare much less than paying the same amount of money today (Næss, 2006, p. 6).

2.1. Introduction

This chapter reviews the literature that explores the link between the notions of roads investment and economic growth. The chapter is divided into three main parts. The first part presents a summary of epistemological and technological approaches in linking roads investment with economic growth. This part critically reviews the concept of economic growth and its claimed link with roads investment by focusing on urban planning and economic theories. The second part summarises the concept of externalities as economic growth hindering agents. These externalities are usually treated as minor or insignificant aspects of economic, social, environmental, and spatial dimensions. This part also examines how externalities shape economic, social, environmental and spatial aspects of road projects. The third part reviews the literature focusing on practical issues in linking roads investment and economic growth. In this part, it is argued that the benefit-cost ratio (BCR) is currently the main criterion in linking roads investment with economic growth. Therefore, it is imperative to understand the real meaning of economic growth through discussions, dialogue and practical understanding of the ideological and political agendas that present economic growth as a justification for building roads. This part presents the Aristotelian concept of *phronēsis* as the missing link which the current dominant urban planning practice has understudied in relating roads investments with economic growth.

2.2. The struggling experts

In the last two decades, the relationship between roads investment and economic growth has been a matter of debate among politicians and planners (Blum, 1982; Linneker & Spence, 1996). In this regard, Linneker and Spence (1996) argue that roads support an entire variety of economic activity that integrates the economic system alongside facilitating its transaction in geographical space. In this context, according to Samuelson and Nordhaus (1992), the term 'economic growth' generally refers to an increase in income per capita or an increase in the volume of goods and services produced in a given time. The dominant approach in economics in defining the term 'economic growth' follows quantitative modelling by employing dependent and independent variables to calculate growth over time (Domar, 1946; Harrod, 1948; Solow, 1956). Due to higher predictability levels, quantitative models of economic growth in terms of sophisticated mathematical equations have been widely used over the last eight decades [see, for example, Capello (2011)].

Cost-benefit analysis (CBA) is one of the techniques used in calculating the benefits and costs of a project (Næss, 2006). It quantifies costs and benefits of a project by applying a discount rate to its associated present values. The discount rate is a value expressed as a percentage of the total project cost that reflects the future costs or benefits of a project at today's equivalent value (Phaneuf, 2005). Originally based on the ideas of a French engineer Jules Dupuit, the CBA technique was first applied in the United States (US) in the 1930s to control the federal government's spending (ibid). The CBA discount rate varies across developed and developing countries. For example, annual discounting rates for road projects in the United Kingdom (UK), the US, Norway and Canada are 6, 7, 8 and 10 per cent respectively (Small, 2011). The World Bank sponsored road projects (mostly in developing countries) use an annual 12 per cent discounting rate (World Bank, 2005). Although these rates keep varying, the main reason for this variation lies in discounting future monetary benefits and costs (Næss, 2006) which invariably vary in developed and developing countries' due to prevailing socio-political conditions. Due to greater risk, the international

development agencies use a higher discounting rate for developing countries (World Bank, 2005).

Establishing a link between roads investment and economic growth has been a feature of economic analysis for several decades. In the early twentieth century, location and land values were important in determining economic growth. Alonso (1964) argued that investment in roads provides accessibility to land which increases land value and brings benefits causing economic growth. These benefits are evaluated through various land use models¹ which are generally recognised as a useful tool for analysing the land use effects of road projects (Gregor, 2015). However, Black (2001) argues, it is hard to prove that investment in highways accelerates economic growth and development. In this regard, it was argued that transport planning generally ignores the effects of transportation improvements on land use during the project and plan evaluation (Waddell, Ulfarsson, Franklin, & Lobb, 2007).

Three views about the relationship between transport and economic growth can be identified: positive, permissive and negative (Gauthier, 1970). The first view states that transport investment promotes economic growth and their mutual relation is thus positive because transport facilities expand production activities (Hunter, 1965; North, 1955; Owen, 1964). The permissive view treats this relation as conditional arguing that economic development is not a deterministic process and that transportation does not generate directly productive activities (Cootner, 1963; Fogel, 1964; Hawkins, 1962). The third view is that transport investment has negative impacts on economic growth (Hirschman, 1958; Wilson et al., 1966). This view argued that overinvestment in transport infrastructure inhibits economic growth by relocating economic activities, from the core to the periphery of cities leading to drastic decline in per capita income of the original area.

¹ Land use models incorporate economic theories and statistical methods to predict urban land use layouts under given conditions. Some examples of the land use models are spatial input-output models and Computable General Equilibrium (CGE) model.

Mohring's (1961, 1976) classical argument suggests that the economic benefits of transport projects are a result of increased travel demand which help individuals and firms to perform their activities. For example, the rapid growth of Chinese and Indian cities has dramatically increased the demand for travel because of increased average incomes of individual and firms (Pucher, Peng, Mittal, Zhu, & Korattyswaroopam, 2007). However, the experience of London's orbital road (M25) shows that expected benefits of roads investment are eroded away by additional traffic which increases congestion (Williams & Lam, 1991). The reason is that every location has its own overt and covert dynamics called location externalities (Martinez & Araya, 2000) which impact positively or negatively on economic growth. For example, Mohring (1976, p. 119) argued that transportation improvement may change the land values resulting in transfer of income among the members of the population living there. These arguments suggest that every road project has to be treated differently because various planning and economic conditions in all locations cannot remain *ceteris paribus*.

At the level of macro, therefore, analysis of road projects requires specific attention to the characteristics of developed and developing countries. Even within developed and developing countries, the location dynamics may change altogether. With this understanding, the following sections critically review the link between roads investment and economic growth from the perspectives of location theories, regional economic growth theories, local development theories and local economic growth theories.

2.2.1. Roads investment and economic growth – the location theories' perspective

Early twentieth century urban planning and economic growth theories [see, for example, Weber (1929) and Hoover (1936)] were focused on localism and contextual issues. This formed the basis of location theories. Weber (ibid) and Hoover (ibid) assumed that there are no geographic changes in the prices or qualities of inputs (cost of investment) at different sources of production. They suggested that, at the macro level, the cost of investment may be assumed to be

constant across developed and developing countries. Based on this assumption, they concluded that production costs are not related to geographic differentials and the optimum location is the point of minimum transportation costs. According to Weber (1929), an industry will, therefore, be located where the transportation cost is least. This suggests that, in both developed and developing countries, roads investment may be necessary to achieve the optimal location of a firm by lowering transportation costs. Roy (2011) argues that, as location theories have been site-specific, most planning models emerged from the struggles and dilemmas of particular locations. March (2010) similarly argues that the value of planning theories usually depends on the nature of governance in particular locations. Therefore, the location theories considered transportation cost as a determinant of a firm's income generation by distributing activities in space and location mainly through quantitative methods (Capello, 2011). The idea of 'location' is not confined to geography only; it also involves several managerial and economic dimensions. For example, Hillier (2008) supports a case of performance-based planning vis-à-vis performance-measured planning arguing that spatial planning practice requires a new theoretical base to confront complex challenges of today's world.

Moses (1958) extended Weber's (1929) location theory by concluding that profit maximisation needs an adjustment of output, input combination, location and price. Miller and Jensen (1978) applied varying transport costs and their impacts on profit maximisation (economic growth) conditions concluding that if the transport rates/cost do not depend on quantities, then the location remains independent of output/income generation. This suggests that it is possible to have lesser connectivity (roads, train, air, and, digital) and still have higher profits.

Against this background, the contextual and local sensitivities of a firm's location and its relation with transportation costs and income generation led to several questions of production quantity versus transportation cost, and optimum location versus income generation. Mathur's (1979) work was, perhaps, the first of its kind to clearly acknowledge the importance of context and localism in relating transport

costs with profit maximisation and income generation. He divided the notion of location into homogeneous² location and heterogeneous³ location. He suggested that there are certain 'intangibles' or 'little things' which are contextual in nature and hard to quantify. For example, it is hard to claim a rise in the income of a firm or an individual merely by decreasing the transportation costs because many other factors such as geographic location, price inputs and product demands also determine income generation (ibid).

Another group of urban economists (Beckmann, 1969; Fujita, 1989; Wingo, 1961) attempted to relate the notion of economic growth with the allocation of land among producers and residents. This group diverted the focus of location theory from achieving optimal location to alternative production activities. Using quantitative methods, the focus was further diverted from a firm level profit maximisation to the macro level of a city's economic growth in terms of particular patterns of land costs. These findings identify particular land costs patterns at different distances from the city so that location equilibrium for all firms and individuals could be achieved. As this concept took a macro view of a city's economic growth, the construction of more roads was possibly justified so as to achieve location equilibrium for all. Fujita (1989) expanded this idea by presenting an integrated theory of urban land use and city size arguing that people choose to live at locations where they could earn higher per capita incomes. Capello (2011) notes that location theories were unable to acknowledge the existence of several other activities and stakeholders/individuals and dichotomous location alternatives such as urban/non-urban areas, central/peripheral areas with varying local and contextual activities. He identifies an urban system or hierarchy of centres which influence location issues and their possible connection with economic growth. Location theories, in general, have viewed location as an income-generating factor through increased production (see, for example, Fujita, 1989).

² In homogeneous locations, consumers are better organised and demand considerations are an intrinsic part of market area considerations

³ In heterogeneous locations, free-on-board prices, to be faced by locators, are to be transported at positive cost

2.2.2. How do regional growth theories connect roads investment and economic growth?

The limitation of location theories for explaining location-production local sensitivities in an urban hierarchy led to a change of focus in the 1950s and 1960s from localism to regionalism. Accordingly, regional growth theories deal with spatial aspects of economic growth and territorial income distribution by proposing different stages of development (Capello, 2011). Hoover and Fisher (1949) suggest that regions undergo a five stage economic development process. In the first stage, there is little investment or trade and populations are located according to natural resources distribution. In the second stage, with improvements in transport (through construction of roads or railways), the region develops some trade and local specialisation. The third stage sees agricultural modernisation. In the fourth stage, a region is forced to industrialise because of diminishing returns to agriculture. And, at the final stage, a region specialises in tertiary industry and exports to less developed regions. Isard (1951) observes that the role of transport costs remains critical in these five stages. He found that a reduced transport cost transforms a ubiquitous and scattered production pattern into a concentrated one.

North (1955) severely criticised regional economic growth theory mainly because of its lack of sensitivity to the varying contexts of developed and developing regions. He strongly advocated the coupling of regional economic growth with the economic history of a region because different industries have different transport requirements. This variation is reflected in the planning strategies adopted by developed countries suggesting that a regional focus is required to foster economic and social well-being (Souza & Silva, 2011).

Another group of regional growth theories focus on the supply components with a view to explaining the long-run regional dynamics (Capello, 2011). Apart from North's (1955) stress on exports, these theories incorporate the export capacity of a region and the competitiveness of the local economic system (ibid). However, such local economic systems may be weakened if the urban development work is based

on instrumental rationality which increases regional dependency (Amdam, 2001). Borts (1960) argued that, in fact, regional growth is caused by initial differences in regional endowments of capital and labour. Therefore, roads investment in developed and developing regions may not bring similar economic growth results.

2.2.3. How do local development theories explain the link between roads investment and economic growth?

Local development theories incorporate external and internal factors in enhancing economic growth in local contexts. In the 1970s, these theories identified some factors - called determinants - in which economic development was based on territorial competitiveness (Capello, 2011). These determinants were classified as exogenous and endogenous determinants of territorial competitiveness. The basis of exogenous determinants of territorial competitiveness may be linked to the growth pole theory which, according to Perroux (1955), suggests that economic growth is not uniform over the entire region, but takes place around particular poles or clusters. Because of agglomeration⁴ and scale economics near this particular pole, regional development is unbalanced. As industries tend to move closer to a particular growth pole, transportation plays a pivotal role in such process. Critics, however, argue that confusion exists around the notion of 'growth pole' and the same needs to be viewed in geographic and economic space (Darwent, 1969). Rephann and Isserman (1994) find that the main beneficiaries of economic growth will be the suburban areas close to an industrial growth pole of a large city.

Local development theorists opposed the idea of treating regions as part of a national system (Blomström & Kokko, 1998; Capello, 2011). The place of regions, they argued, has been taken by individual economic actors who could be large or small, public or private, and multinational or local. Their behaviour may be studied in terms of several factors such as productive/innovative capacity, location choice,

⁴ It refers to an economic phenomenon in which firms are located close to each other [see, for example, Parr (2002)].

competitiveness and relations with the local system and international community (Blomström & Kokko, 1998; Capello, 2011; Hagerstrand, 1952; Lipietz, 1980). These factors altogether change the real meaning of economic growth for a region. In such scenario, infrastructure construction is decided by exogenous or external authorities.

Endogenous determinants of economic growth, however, mainly refer to local production resources, entrepreneurial ability, local decision-making capacity, innovation, ability to lead development process and ability to enrich it with external knowledge (Capello, 2011). For example, according to Yao and Zhang (2001), China witnessed a sudden rise in urban economic growth but it was marred by steep regional inequalities between coastal and inland urban areas. India's Jawaharlal Nehru National Urban Renewal Mission also pointed out similar results of urban growth in big cities such as Kolkata and Mumbai (Vidyarthi, Hoch, & Basmajian, 2013). During the 1970s, the sudden and rapid development of certain Italian regions, when the country's industry was in crisis, was possibly a result of endogenous factors (Capello, 2011; Ciciotti, 1979). As a result, several endogenous theories were presented which focused on localism and contextual sensitivities, explaining the phenomenon of rapid economic growth in the countries such as Italy. These included: 'bottom-up development', 'indigenous potential', 'local context' and 'local industrial system' theories (Ciciotti & Wettmann, 1981; Johannisson & Spilling, 1983; Stöhr, 1990; Stöhr & Tödtling, 1977; Vásquez-Barquero, 2002). Endogenous growth theories suggest that local context plays a pivotal role in promoting economic growth in developed and developing countries.

2.2.4. Road investment and economic growth – an evaluation within the local growth theories framework

Local development theories laid a greater emphasis on development than on growth. This changed focus highlighted the importance of context in the complex process of local development. With the advancement of non-linear mathematical models in the 1980s, according to Capello (2011), several local economic growth

theories such as ‘new economic geography theories’ (Krugman, 1991a, 1998) and ‘endogenous growth theories’ (Barro, 1991; Grossman & Helpman, 1991; Rebelo, 1991; Romer, 1990) surfaced. New economic geography theories explain how historical incidents shape economic geography in which several hidden parameters can generate never ending changes in spatial structures (Krugman, 1991a, 1998). Endogenous growth theories suggest that economic growth is a result of internal or endogenous factors and not the external ones (Barro, 1991; Grossman & Helpman, 1991; Rebelo, 1991; Romer, 1990). The endogenous factors include, but are not limited to, innovation and human capital (ibid). As the non-linear mathematical models had the ability to study the qualitative behaviour of some economic issues, these economic growth theories had the ability to include agglomeration economies in local development (Nijkamp & Reggiani, 1993; Reggiani, 2000; Wilson, 1970). With the formulation of imperfect competition, increasing returns became an integral part of development analysis in the local growth theories framework (Dixit & Stiglitz, 1977). In the roads investment scenario, the increasing returns hypothesis applies to the extent that roads will expand the markets which in turn will either increase production or decrease costs with production remaining the same. These theories are similar to endogenous local development theories in which internal factors may cause economic growth even if roads investment is not better decided. In addition, these theories can be applied to seek long term competitiveness through building roads.

In summary, location theories are context⁵-sensitive from several angles because of their ability to incorporate contextual factors such as geographical location, human capital, and innovation. These theories, however, remained unsuccessful in explaining the location-production local sensitivities in an urban hierarchy. Regional growth theories had the ability to link spatial aspects of economic growth to territorial income distribution. These theories are, however, predominantly context-insensitive. Local development theories identified local development determinants

⁵ For definition of context, see section 3.3.

in which development was based on territorial competitiveness. These theories, however, laid greater emphasis on the complex development process rather than economic growth itself. Local growth theories had the ability to study the qualitative behaviour of social issues based on the developments in non-linear mathematics. The approach of local growth theories, however, remains fixed and determined with lesser focus on contextual sensitivities.

2.3. Externalities shape the economic, social, environmental and spatial aspects of road projects

Economists' failure to establish a clear relationship between roads investment and economic growth indicate that there are certain elements beyond the quantitative measures of the economic growth models. This suggests there are some external factors which possibly lie beyond the confines of episteme and techne. Economists call these factors *externalities*. An externality, according to Buchanan and Stubblebine (1962), refers to an unintended cost or benefit. Externalities, sometimes, work in line with the concept of *Pareto efficiency* in which the resources are allocated in such a way that it is impossible to make an individual better-off without making another individual worse-off (Barr, 1993). Externalities are classified as positive and negative. A positive externality imposes a positive impact, such as an increase in land values arising from improvement to a road, on an unrelated third party (Varian & Repcheck, 2010). A negative externality leaves a negative impact such as an increase in air and noise pollution in a street (ibid).

Baumol (1988, p. 26) relates externalities to the absence of property rights. In this regard, Verhoef (1994) also has a similar view arguing that environmental quality is an economic good for which there are no property rights and no market exists for it. This suggests that externalities may be treated as a group of those economic, social, environmental and other spatial and land-use planning 'little things'⁶ hard to be calculated in monetary terms (Baumol, 1988; Himanen, Nijkamp, & Padjen, 1993;

⁶ For definition and details, see section 3.2.2.

Ray, 1998; Verhoef, 1994). By treating externalities as a component of *phronēsis*; the economists' failure may be viewed as parallel to the experts' failure in the little boy's story in Chapter one.

The analysis above of economic growth theories indicates that the concept of externalities is an understudied area that possibly explains the unsettled relation between roads investment and economic growth. The reason is that an external effect (or externality) is not a deliberate action, but an accidental and unintended by-product (Mishan, 1971) of investments. This suggests, apart from internal costs and benefits of road projects, an analysis of external costs and benefits also needs attention. Table 1 summarises various economic, social, environmental and spatial externalities in relating roads investment with economic growth.

There is a broad body of literature concerning the nature and measurement of the economic, social, environmental and spatial implications of road projects. These implications are both general (Banister & Berechman, 2001; Lakshmanan, Nijkamp, Rietveld, & Verhoef, 2001; Rothengatter, 1994) and case study/context based (Albert & Glanzer, 2014; Cravioto, Yamasue, Okumura, & Ishihara, 2013; de Vasconcellos, 2005; Martínez Sánchez-Mateos, Sanz, Francés, & Trapero, 2014; Mees, 2003; Yang, Hao, & Cai, 2014). Positive and negative externalities, therefore, need to be understood both generally and contextually as having economic, social, environmental and spatial dimensions. These dimensions, incorporating both positive and negative externalities, termed as 'development links', will be discussed in the following sections.

2.3.1. Economic externalities

Economic externalities are associated with several factors such as better efficiency, decrease in cost, jobs creation and jobs-housing balance, attraction for private investment and skilled labour and impacts on local and regional economy (Table 1).

Travel time saving, congestion relief and accessibility as determinants of better efficiency

One of the main aims of investment in road infrastructure is to improve travel time by relieving congestion and providing accessibility in order to achieve better efficiency. There are two main views about travel-time saving as a main objective of roads investment. One view treats it as a positive economic externality (Banister & Berechman, 2001; Mohring, Schroeter, & Wiboonchutikula, 1987; O'Fallon, 2004) while the other rates it as a negative economic externality (Gwilliam, 1997; Metz, 2004). Travel-time savings, according to Banister and Berechman (2001), is a positive economic externality because it enables goods to be moved from one place to another in less time thus improving industrial production and efficiency. Travel time savings benefit people particularly those living close to the new or improved roads as they have more productive time to be utilised. However, this benefit is very car-centric. Mohring et al. (1987) note that travel time saving is the main benefit of roads investments in developed countries where time is precious for industries and people. Quantifying the value of time in developed countries, according to Prasetyo, Fukuda, Yoshino, and Yai (2003), is common to estimate the benefits to industries and individuals. Treating travel time saving as a major economic benefit of transport investment (Wallis, Rupp, & Alban, 2015, p. 12), for example, travel time estimation procedures in New Zealand help organisations to assess the economic efficiency of their investment proposals (NZTA, 2016, p. iii).

Some authors treat travel time saving as a negative economic externality (Gwilliam, 1997; Metz, 2004) because improved roads encourage more vehicles to use the route which ultimately increases congestion. Congestion refers to a traffic condition in which drivers are unable to go faster because of the volume of traffic (Downs, 2004). It is also treated as both a positive economic externality (Downs, 2004) and a negative economic externality (Eicher & Turnovsky, 1998; Sen, Tiwari, & Upadhyay, 2010; Weisbrod, 2008). To Downs (2004), congestion is a sign of prosperity and economic success. Eicher and Turnovsky (1998), however, suggest a negative relation between congestion and economic growth. Weisbrod (2008)

argues that congestion increases travel times and costs which reduces reliability and diminishes access thus making it an agent of 'reverse impact' for economic growth. The economic literature, according to Sen et al. (2010), suggests that negative external effects of congestion can be lessened by charging road users during peak travel time.

Roads investment may provide opportunities in terms of better accessibility for people and freight thus enhancing efficiency. Accessibility is also viewed as both a positive economic externality (Taaffe, Morrill, & Gould, 1963) and a negative economic externality (Lakshmanan et al., 2001; Verhoef, 1994). Taaffe, et al. (1963) believe that the improvement of internal accessibility in the form of transportation network expansion is a critical factor in achieving economic growth in developing countries and regions. However, Lakshmanan et al. (2001) argue that improving accessibility in already developed regions provides more choices to travel which increases congestion and reduces economic growth and productivity. In short, there is a lack of consensus that roads investment increases efficiency through travel time saving, congestion relief and improved accessibility depending on the context of investment.

Decrease in cost

It is generally assumed that roads investment will improve economic efficiency which, in turn, will reduce the cost of products for the consumers (Lee & Kim, 2014). Coase (1937), for example, argued that any trade (or business) done in the presence of externalities and low transaction costs has the potential to achieve better efficiency by effectively engaging with the stakeholders. However, negotiations need time which may increase the unit cost of the products. In case of failed negotiations, the enforcement cost may also increase the overall cost of the product. This assumption, furthermore, may not be valid for the people or stakeholders who are not using those particular products. Sen et al. (2010), for example, argue that expanding car culture in developing countries increases the travel cost of individuals and freight alongside leaving negative external effects on

people. Such trends can be effectively curtailed by introducing context-based transport planning interventions such as the concept of shared transport services (Cheyne & Imran, 2016). The relation between roads investment and decrease in business costs is also not straight forward. The travel costs of individuals and freight affect the production costs and public service costs. These effects could be short term or long term depending on the timing of the roads investment (Lee & Kim, 2014). The short-term effects include, but are not limited to, job creations and jobs-housing balance (to be discussed later). The long-term effects include increased production activities, innovation and technological development relying mainly on travel cost of individual and freight, production costs, and public service costs (ibid).

By dividing roads into military and non-military categories, Aschauer (1989) emphasised the importance of context in relating roads investment with production costs. He found a positive association between industrial productivity and non-military roads investment in developed countries such as the United States (ibid). Furthering Aschauer's (ibid) research, most studies have shown a positive relation between roads investment and decrease in production costs (Lee & Kim, 2014). However, some studies suggest a negative relation arguing that roads investment increases production costs (Berechman, 1994; Binswanger, Khandker, & Rosenzweig, 1993). For example, Jiménez (2003) argue, that roads investment can slow down the growth of productivity which, according to Yamano and Ohkawara (2000), cause decline in national incomes and rise in productivity cost.

Dahlman (1979) gave the example of the unintended external impacts of smoke on the linen of a laundry. To understand the relation between roads investment and public service costs alongside its impact on overall decrease in the cost of products, his laundry-smoke example may be slightly modified. Imagine a newly constructed road has a greater influx of heavy traffic resulting in higher rate of lead rich smoke emissions causing fouling of the nearby laundry linen. As a result, clients complain of low quality services. Consequently, there is a decrease in number of clients and an increase in the production costs. The laundry-owner knows that the trucking

lobby is so powerful that the cost of reducing traffic smoke would be too high for him in terms of search costs, bargaining costs and enforcement costs. Under the Pareto-optimality principle (Barr, 1993), if the costs incurred due to fouled linen is less than the cost of smoke emissions, the smoke emissions will not stop and vice versa. As a result, accepting low-quality laundry services will gradually become an informal practice of the clients of this laundry. At the macro or national level, a similar practice of compromising over public services may also take place due to subtly penetrating externalities. The above review indicates that increase or decrease in transaction costs vis-à-vis roads investment depends on three main factors: travel cost of individual and freight, production costs and public service costs.

Jobs creation and jobs-housing balance

There are three views about roads investment and its relation with jobs creation. The first view suggests a positive relationship between roads investment and jobs creation (Duffy-Deno & Eberts, 1991; Pereira, 2001; Seitz, 2000). The second view rates it as a negative relationship (Dalenberg & Partridge, 1995). The third view finds a neutral relationship among roads investment, jobs creation and an increase in per capita income (Crihfield & Panggabean, 1995). Duffy-Deno and Eberts (1991) argue that public investments, such as roads, enhance income per capita and create jobs. Pereira (2001) notes that public investments, including roads, leave a crowding-in effect on private investment in certain sectors of the economy which creates new jobs. Seitz (2000) found an increase in jobs creation due to increased infrastructure supply in the manufacturing and service sectors. Dalenberg and Partridge (1995), however, note that the change in infrastructure stock, such as roads, did not significantly create new employment opportunities. In contrast to the above two views, Crihfield and Panggabean (1995) found that there was an extremely low impact of infrastructure investment, including roads, on income per capita and jobs creation. The three views signify the impacts of roads investment on the jobs-housing balance (JHB). This concept of JHB refers to a balanced community able to both live and work efficiently (Giuliano, 1991).

Against the backdrop of these three views, the JHB becomes a major planning and public policy issue with significant external economic effects (ibid). Jobs creation, for example, may become irrelevant if the work places and residences are located far apart. This argument is based on two main impacts. The first is the increase in number of vehicles on roads, causing congestion, between the far-apart work places and the residences. The second is the resources spent on fuel consumption causing a decline in per capita income. Giuliano (ibid) argues that housing and employment are so dispersed within an urban area that workers frequently change jobs and home locations. There are two main reasons for this trend. First, the jobs-housing imbalance (JHI) creates a gap between actual and minimum commuting flows resulting in *excess commuting* (Loo & Chow, 2011). Some developed countries, therefore, discourage *excess commuting* through the provision of subsidies. In some parts of the United States, for example, cash grants were given to workers who purchased houses close to their work places (Cervero & Duncan, 2006). Second, the JHI creates employment barriers and socio-economic exclusion for workers who do not own a car (Zhou, Wang, & Schweitzer, 2012). The literature suggests three ways to address the JHI-related negative externalities: (i) reducing travel by bringing origins and destinations closer, (ii) encouraging people to walk, bike or use public transit, and, (iii) reducing vehicle trips by capturing travellers at more convenient destinations (Cervero & Duncan, 2006). It is argued that the concept of *traveller-capture* may lessen the effects of JHI related externalities if the local travel demands and contextual challenges are correctly understood. There are three forms of *traveller-capture*: internal capture, pass-by capture and route diversions (ibid). *Internal capturing* takes place when people walk between their work places and retail shops in a well-planned mixed-use urban area. *Passer-by capturing* occurs when motorists make a short stop at a gas station or a food shop, say, along their destination route. *Route diversions* take place when a traveller makes a little detour, say, to buy bread (ibid). The transformation of JHI into JHB, therefore, requires a thorough understanding of the contextual issues associated with the construction of new roads.

Attraction for private investment and skilled labour

Every economic activity, including roads investment, can be classified into two types: (1) those progressive activities which increase output per man hour through innovation, capital accumulation and economies of scale (Baumol, 1967). These activities attract skilled labour, and, (2) those activities that naturally increase productivity in a sporadic manner (ibid). These activities usually attract unskilled labour. Therefore, both public and private investments together determine the quantum and direction of the skilled labour movement.

Accordingly, there are three views about the effects of roads investment on private investment: positive, neutral and negative. The argument of positive effects of roads investment on private investment has been built on Aschauer's (1989) seminal work on the productivity of private economy in the United States. Based on this, it was argued that roads investment acts as a positive externality for private investment by stimulating private factors of production (Pereira, 2001). One such stimulating factor is the creation of jobs during the construction, operation and maintenance phases of road projects. During the construction phase, for example, the engineers and skilled and unskilled workers may get jobs. During the operation phases, mainly office workers and IT professionals may get jobs. Moreover, the operation of a transport facility attracts industries to use this facility and creates employment related sectors such as construction and transport sectors.

Based on Aschauer's (1989, 1990) work, the impacts of roads investment were analysed for investments in particular private sectors as well. For example, Erenberg (1993) saw a rise in private investment in equipment due to public investment including roads. In another study, Erenberg and Wohar (1995) noted backward-forward feedback effects between public investment, including roads, and private investment. For example, investment in roads may encourage developers to build housing schemes or subdivide the land into housing units and ultimately provide housing facilities close to newly established industries.

Rye et al.(2001) argue that transport investments may increase a firm's willingness to pay to achieve overall efficiency. Such a trend will increase incentives for private investment. However, most of the studies, when incorporating unique effects in terms of contextual issues, saw no relationship between roads investment and the private-sector output (Evans & Karras, 1994; Garcia-Mila, McGuire, & Porter, 1996; Holtz-Eakin, 1992). Bartik (1991) also argued that economic benefits on one location, gained through roads investment, are offset by economic losses at another place. These studies, therefore, suggest a neutral relationship between roads investment and the promotion of private investment. The third view argues that street-and-highway investment acts as a negative externality with negative spillover effects on the nearby regions (Boarnet, 1998). These effects, therefore, discourage private investment.

Impacts on local and regional economy

The impacts on local and regional economy have been discussed in section 2.2.2.

2.3.2. Social externalities

Road transport can threaten social values when it creates congestion, noise annoyance, pollution and accidents (Rienstra, Rietveld, & Verhoef, 1999). It is possibly because the relation between social and spatial changes of a road project is not straightforward (Gentile, Tammaru, & van Kempen, 2012). For example, the houses located just on roads may experience more accidents and noise and air pollution. Generally, transportation infrastructures carry societal costs, such as public health and safety, which are often ignored in analysing their costs and benefits in the decision-making process (Uddin, Boriboonsomsin, & Garza, 2005). There are, however, some positive social externalities as well such as increased access to emergency services and social visits (Lakshmanan et al., 2001). The social impacts of new roading infrastructure, therefore, depend on multiple factors which may reinforce each other (Geurs, Boon, & Van Wee, 2009).

Eroding public spaces/social and recreational services

Urban open space (UOS) refers to a cultural and natural resource intentionally created for the purposes of urban shaping, conservation and the provision of recreational facilities for the public (Myers, 1975). As the counterpart of development (ibid), the UOS of a city and private spaces of homes are drowned out due to the construction of urban roads (Adey, 2010, p. 89). For example, the depletion of the UOS in Los Angeles owing to excessive infrastructure development (Crawford, 1995). As a negative externality, the erosion of UOS involves several aspects of urban utility-maximising behaviour (Cox, 1973, p. 2). For example, loss of public space and the presence of transport infrastructure change people's perceptions of a city's aesthetics in terms of its architectural, historical and archeological buildings (Geurs et al., 2009). Erosion of public spaces by roads may sever communities which may reduce their accessibility to social and recreational services (Geurs et al., 2009; James, Millington, & Tomlinson, 2005). For example, parked vehicles may dominate open public spaces, reduce street activities and increase the risk of child pedestrian injuries in a city (Agran, Winn, Anderson, Tran, & Del Valle, 1996; Geurs et al., 2009). The provision of emergency services such as police, fire brigade and ambulance, however, is a rare positive social externality of roads (Geurs et al., 2009).

Displacement

Development-induced displacement and resettlement (DIDR) refers to the forced expulsion of communities and individuals from their homes, and even home lands, due to development projects for economic development (Terminski, 2012). DIDR acts as a negative externality because new roads, being development projects, also result in people's involuntary displacement and disintegration on a large scale (Cernea, 1995). For example, the construction of the Lyari Expressway alone in Pakistan displaced around 203,200 people in Karachi (Banerjee, Chaudhury, Das, & Adhikari, 2005, p. 76) affecting 24,400 families and demolishing 15,000 housing

units (Terminski, 2015, p. 133). It is estimated that around 15 million people are displaced annually due to such development projects worldwide (Oliver-Smith, 2009; Terminski, 2012). It is possibly because, the efficiency and quality of infrastructures not only effect social system but also the economic and business activity (Uddin, Hudson, & Haas, 2013, p. 3). Although the number of displaced people in developed countries is lower than developing countries, such displacements still affect people, their homes and social circles. DIDR can be disastrous for the economic, physical, psychological and socio-cultural well-being of the affected people (Turton, 2002). For example, the so called Johannesburg Inner City Regeneration Strategy, approved in 2014, displaced thousands of people in South Africa (Terminski, 2015, p. 134) with severe negative pyscho-social effects such as loss of homes and jobs. The gravity of such effects may depend on deciding and pointing out of a road route which may cause displacement and uncertainty for local residents (Geurs et al., 2009). Displacement results in further negative social externalities such as aggression, fear, discomfort and annoyance (Marx, 2002).

Housing affordability and consumer preferences

Falling housing affordability is another negative social externality of roads. It is traditionally measured as a function of housing cost and income (Mattingly & Morrissey, 2014). However, beyond traditional measures, housing location determines the transportation costs (ibid) thus giving rise to the concept of the Housing and Transportation (H+T) Affordability Index⁷ (ibid). Housing affordability is, therefore, affected by the construction of new roads. There are two views on the impact of housing affordability due to new roads construction. One view argues that new roads create urban sprawl which supplies already available urban land which, in turn, reduces the property prices (Demographia, 2011; Glaeser & Gyourko, 2003; Quigley & Raphael, 2005). The other view, however, argues that urban sprawl adds transportation costs as well which are determined by the

⁷ It yields the affordability view including both the housing cost and the transportation cost (Zheng, Liu, & Sun, 2011).

housing location (Mattingly & Morrissey, 2014). Therefore, the lower housing costs in the outer suburban areas are offset by excessive travelling, vehicle dependency, fuel costs and vehicle depreciation (ibid).

Housing affordability also depends on people's needs and preferences. Roads influence people's needs, attitudes and preferences for a car-oriented lifestyle (Geurs et al., 2009). This life-style may encourage people to live outside the main urban centre accessible by multi-lane highways. Some proponents of low density urban fringe development argue that urban sprawl represents consumer preferences writ large conducive to housing affordability (Mattingly & Morrissey, 2014). However, such trend may encourage other people as well to adopt a similar life-style, irrespective of financial limitations, which affects housing affordability. Such trends also change the location of people's activities and the level of trust on their neighbours (McDonald, 2007). Single land-use⁸ divided by large highways, on the one hand, lessens neighbourhood cohesion. On the other hand, the quality, amount, and spatial distribution of facilities and activities (shops, work, social, recreational and health facilities) and their capacity and availability in terms of opening/closing hours of shops and number of hospital beds can increase social cohesion among the residents (Geurs et al., 2009). These factors may change consumers' preferences.

Health impacts

Health and safety also are important aspects of road-based social externalities. A thick density of roads increases traffic stress and adverse health impacts including depression and anxiety (Song, Gee, Fan, & Takeuchi, 2007). Dora et al. (2000, p. 9) show the adverse effects of transportation noise on school performance, communication, cardiovascular effects, hearing impairment, temper and sleep in the European cities. Ross and Marcus (2008) noted a similar trend in the United States where around 43000 deaths and over 3 million injuries occur every year on

⁸ Also called single-use zoning or Euclidean zoning, it is a practice of placing housing, markets and industries in separate areas.

highways. They also found that lack of safe, convenient places and ways to walk and bicycle lead to sedentary lifestyles feeding a massive epidemic of obesity and chronic diseases in the United States. New roads also result in urban sprawl which poses safety challenges such as higher crash rates and higher per capita traffic deaths (Durning, 1996; Ewing, Schieber, & Zegheer, 2003; Lucy, 2002). These negative social externalities keep creeping-in on day to day basis depending on the local urban situation and contextual challenges in which a road project is perceived and built.

2.3.3. Environmental externalities

Environmental externalities are widely-recognised negative effects of road transport [see, for example, Santos, Behrendt, Maconi, Shirvani, and Teytelboym (2010)]. Uncontrolled motorisation may contribute to a transportation system that is environmentally, socially and economically unsustainable (Qureshi & Lu, 2007). Verhoef (1994) divides the environmental impacts into social and ecological categories. The social category is restricted to minor social environmental impacts. For example, the accidents costs partly imposed on other car-users and partly on people living outside a particular population or area where accidents took place (ibid). The main environmental impacts are, however, covered under ecological category largely consisting of their pollution impacts and green spaces impacts.

Pollution impacts

The pollution impacts of roads can be classified into eight categories (Spellerberg, 1998). Firstly, there are general environmental costs of roads which are actually way more than what is methodologically estimated (ibid). Generally, two methods are used in this regard: command-and-control (C&C) and incentive-based policies (IBP) (Santos et al., 2010). In C&C, government regulations force consumers and producers to change their behaviour. Parking restrictions in Singapore and vehicle emission fuel standards in the United States are some examples of the C&C policies (ibid). IBP aims at affecting the production and consumption patterns. For example, issuance of permits for carbon emissions, such as European Union Emission Trading

Scheme, in some countries (Ellerman & Buchner, 2007). These measures have, however, failed to address the environmental externalities because their cost to the society is not reflected in the current market prices in the road transport sector (Santos et al., 2010). Secondly, the ecological effects of the secondary activities of roads such as mining for roads aggregate and the transportation of fossil fuel used for roads maintenance (Spellerberg, 1998).

Thirdly, roads negatively affect ecosystems as well. For example, trees and other plants along the roads may accumulate heavy metals (Ward, Brooks, & Reeves, 1974) which help to reduce pollution (Haigh, Rawat, Rawat, Bartarya, & Rai, 1995), but harm the biota as well (Spellerberg, 1998). Fourthly, building new roads for opening access for tourism increase pollution and leave negative effects on ecology (Forbes, 1992; Kearsley, 1990). Fifthly, new roads also adversely affect the physical environment such as water run-off and the sediment load in streams (Ball, Jenks, & Aubourg, 1998; Watkins, 1981). Sixthly, the structures related with roads such as electricity poles, wires, bridges, rest areas, contagious piles and fences also disturb the habitat of wildlife and plants (Spellerberg, 1998). Seventhly, new roads also act as de-icing agents by adversely affecting glaciers and natural habitat (Davison, 1971; Westing, 1969). Eighthly, new roads also negatively affect geological and geomorphological conservation in a natural environment (Larwood & Markham, 1995; Spellerberg, 1998).

Green space impacts

Urban green spaces (UGS) usually refer to urban parks, forests and associated vegetation that add value to the urban inhabitants in that particular urban area (Singh, Pandey, & Chaudhry, 2010). UGS, such as farmland, wildlife habitat, wetlands, parks and other forms of environment friendly land uses, provide many economic, social and environmental advantages (Litman, 2009). UGS is being encroached by the government and environmental non-governmental organisations in Australia and the United States to buy water entitlements from permanent water reservoirs for commercial use (Wheeler, Garrick, Loch, &

Bjornlund, 2013). The trend is alarming because UGS provide several socio-environmental benefits such as meeting places and a focus to unify diverse communities and neighbourhoods (Germann-Chiari & Seeland, 2004; Martin, Warren, & Kinzig, 2004). New and improved roads, however, diminish UGS in various parts of the world (Pauleit, Ennos, & Golding, 2005; Yli-Pelkonen & Niemelä, 2005).

Singh et al.'s (2010) research on the governance of urban green spaces, as part of the development of Jaipur-India as world class-city, has noted that rapid urbanisation in Jaipur has alarmingly depleted UGS. In recent years, there has been a tendency of accounting for various environmental external costs in road-assessment methods. Such accounting is done through various methods, such as the environmental dimension of CBA, which provides valuation of environmental externalities. Such valuation, according to Gastaldi, Pradayrol, Quinet, and Rega (2007), is a necessary condition for roads investment (particulary in developed countries such as the US, the UK and Australia). Environmental externalities are complicated to quantify and, therefore, roads investment should consider values of these externalities as per the values of societies or specific context.

2.3.4. Spatial externalities

New roads affect several urban spatial dimensions such as accessibility, social equity, economic performance, health, pollution and ecology (Williams, 2005, p. 1). These dimensions largely depend on the urban form and its land use. In this regard, there are two spatial views about urban forms in terms of urban and suburban development (ibid). One is the '*moving in approach*' which reduces sprawl by creating compact cities whereas the other is '*moving out approach*' which increases sprawl. Both approaches largely depend on the dynamics of three main urban phenomena: urban and suburban development, land development and transport network development (Table 1).

Urban development, land development and transport network development

Urban and suburban development spatial patterns determine the size and shape of a city. The shape, density and configuration of cities, as a result of urban and suburban development, have been widely debated in the planning literature (Breheny, 1992; De Roo & Miller, 2000; Williams, Burton, & Jenks, 2000). In this debate, the spatial impacts of a city form on transport have been the prime concern of researchers (Williams, 2005, p. 1). It is argued that roads-building affects transport patterns by creating three types of cities: compact cities, quasi-compact cities and non-compact cities.

Urban zones may be classified into five main categories: residential, commercial, industrial, spatial and mixed residential-commercial. In compact cities, travel demand is reduced through having mixed-use development and compact urban form. Through this type of land development, called moving-in approach, people can work close to their residences and public transport is encouraged (ibid). The moving-out approach either creates quasi-compact or non-compact urban spatial land use. In quasi-compact cities, urban layouts are developed in close proximity to the functional land use zoning which reduces travel demand (ibid). Suburban development, therefore, takes place but on a limited scale and close to the city.

In non-compact land uses, the suburbs are developed through greater suburban connectivity which reduces population density by increasing urban sprawl and travel demand through greater distances between people's work place and residence. Therefore, roads investment shapes and changes land-uses (Trombulak & Frissell, 2000). These landscape changes evolve new spatial patterns (Irwin & Bockstael, 2002) involving new housing schemes and commercial and educational areas. The new spatial patterns attract population and businesses to move into new suburbs which ultimately promote urban sprawl. However, Williamson (2010, p. 29) argues that roads shape urban sprawl alongside promoting economic development in the form of land development for better economic usage.

This is arguably so because land development performs four functions (Dowall, 1993). First, it brings buyers and sellers together to facilitate transactions. Second, it sets and increases land prices. Third, it ensures that the quantity of land offered is equal to the quantity of land demanded. Fourth, land prices ensure that the land is efficiently used. This suggests that roads expansion influences the real estate market from several different dimensions including transport network development. In compact cities, transport networks prioritise public transport and active transport. The same type of transport network may also be effective in quasi-compact land use in which work-places may still be closer to the workers' residences. However, non-compact land use increases distances resulting in a different type of transport network development in which travel demand is high. This type of transport network promotes private car dependence. However, the real estate market works differently in developed and developing countries. In developed countries, new roads network may achieve additional economic growth benefits (Banister & Berechman, 2001). However, in developing countries, roads expansion is considered a critical factor for achieving economic growth (Taaffe et al., 1963).

Nelson et al. (2004) find that despite spatial externalities, the improvement of roads is quite common in developing countries because these countries blindly follow developed countries. As shown in Table 1, the literature shows that spatial externalities, similar to economic, social and environmental externalities, are also understood on an individual basis rather than treating them all as contextual challenges in relating roads investment with economic growth.

Table 1: Summary of literature review on relationship between roads investment and economic growth

Links	Research (references)	Explanation
Economic development links	Aschauer (1989, 1990); Banister and Berechman (2001); Bartik (1991); Baumol (1967); Boarnet (1998); Cervero and Duncan (2006); Crihfield and Panggabean (1995);	Better efficiency depend on factors such as travel time saving, congestion relief and better accessibility. The role of transport in
Better efficiency		
Travel time saving		
Congestion relief		

Decrease in cost	<p>Accessibility</p> <p>Travel cost of individual and freight</p> <p>Production costs</p> <p>Public service costs</p>	<p>Dahlman (1979); Dalenberg and Partridge (1995); Downs (2004); Duffy-Deno and Eberts (1991); Erenberg (1993); Evans and Karras (1994); Garcia-Mila et al. (1996); Giuliano (1991); Lakshmanan et al. (2001); Lee and Kim (2014); Loo and Chow (2011); Metz (2004); Mohring et al. (1987); Prasetyo et al. (2003); Pereira (2001); Seitz (2000); Taaffe, et al. (1963); Verhoef (1994); Weisbrod (2008); Yamano and Ohkawara (2000); Zhou et al. (2012).</p>	<p>decreasing costs is controversial.</p> <p>Decrease in public service costs mainly depends on travel cost of individual / freight, production cost and public service cost. Other factors affecting economic growth include jobs-housing balance, attraction for private investment and positive impacts of local/regional economy.</p>
Social development links	<p>Eroding public spaces / social and recreational services</p> <p>Displacement</p> <p>Housing affordability</p> <p>Consumer preferences</p> <p>Health impacts</p>	<p>Adey (2010); Agran et al. (1996); Cernea (1995); Cox (1973); Ewing et al. (2003); Geurs et al. (2009); Gentile et al. (2012); Glaeser and Gyourko (2003); Lakshmanan et al. (2001); Marx (2002); McDonald (2007); Mattingly and Morrissey (2014); Myers (1975); Quigley and Raphael (2005); Rienstra et al. (1999); Song et al. (2007); Terminski (2015); Turton (2002).</p>	<p>Most of the social externalities of roads are negative. Roads deplete urban public places and social and recreational services. Roads building may cause people’s displacement and affect their ability to buy houses as per their preferences. Car culture may promote health problems.</p>
Environmental development links	<p>Pollution impacts</p> <p>Green space impacts</p>	<p>Ball et al. (1998); Davison (1971); Forbes (1992); Gastaldi et al. (2007); Germann-Chiari and Seeland (2004); Haigh et al. (1995); Kearsley (1990); Larwood and Markham (1995); Martin et al. (2004); Pauleit et al. (2005); Santos et al. (2010); Singh et al. (2010); Spellerberg (1998); Verhoef (1994); Ward et al. (1974); Watkins (1981); Westing (1969); Yli-Pelkonen and Niemelä (2005).</p>	<p>The environmental externalities largely consist of their pollution and green spaces impacts. These impacts affect the environment from several dimensions. They damage the physical environment, wildlife, plants and even glaciers together leaving negative external impacts on the environment.</p>
Land use/spatial planning links	<p>Urban and suburban development</p>	<p>Banister and Berechman (2001); Breheny (1992); De Roo and Miller (2000); Dowall (1993); Frissell</p>	<p>New roads affect several spatial urban dimensions such as accessibility, social</p>

Land development	(2000); Nelson et al. (2004); Taaffe et al. (1963); Trombulak and Williamson	equity and spatial performance. These dimensions largely depend on the urban form and its land use.
Transport network development	(2010); Williams (2005); Williams et al. (2000).	

Source: the author based on Chohan, et al. (2011)

2.4. Handling urban externalities by promoting dialogue and pragmatism in planning

Based on Banister and Berechman’s (2001) observation that the measurability of benefits of roads investment requires scrutiny, three main issues need attention in handling externalities: (1) how is economic growth measured? (2) How do planning practices accommodate people’s concerns? And, (3) how are economic growth measuring tools and planning practices related with the literature? The measurement of economic growth is based on several economic tools with many underlying assumptions. For example, Kuznets (1955) suggests long term changes in personal income distribution vis-à-vis inequality. The so-called Kuznets’ Curve illustrates the trend of initially increasing inequality with development, then a steady phase followed by decreasing inequality as shown by Figure 1. This also

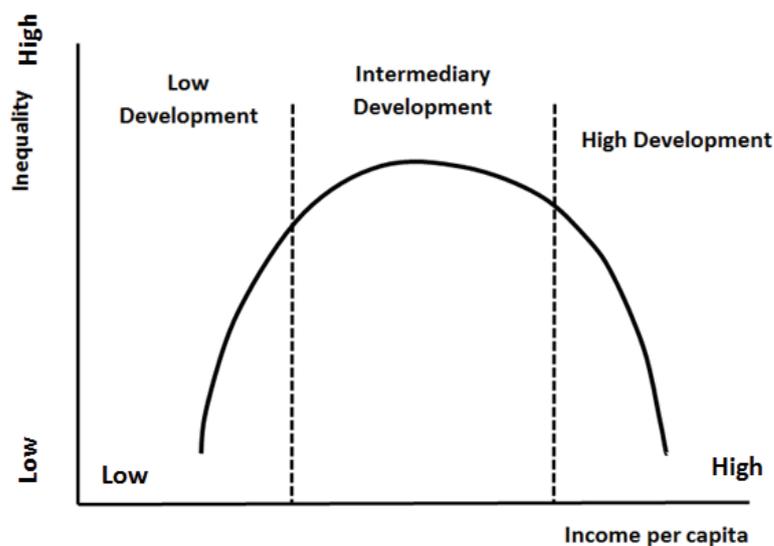


Figure 1: A typical Kuznets’ Curve [Adapted from Pellegrini (2007)].

shows that income generation involves contextual challenges in different countries falling in three different categories of the curve. For example, China's economic growth has witnessed several new locations which are now attaining high development despite being in the low development category earlier (Wei & Fan, 2000). This example endorses Kuznets' Hypothesis, sixty one years on from its inception, highlighting the role state power, local agents and foreign investors as contextual challenges vis-à-vis spatial urban changes in some parts of China (ibid).

2.4.1. Traditional measurability tools

Generally, Benefit-Cost Ratio is used as an effective tool to measure benefits and costs of a road project in determining its economic feasibility as part of the project valuation (Næss, 2006). Benefit-Cost Ratio is an indicator, used in Cost-Benefit Analysis, which summarises the net value for money of a project. It is an analytical technique to justify roads investment (Langmyhr, 2000). Prest and Turvey (1965) argue that BCR is a practical way of assessing a project's desirability because it involves an evaluation and enumeration of all relevant benefits and costs. According to Næss (2006) and Lohmann (1997), Benefit-Cost Ratio determines the benefits and costs of projects to the community with a view to deciding whether such projects are worthwhile.

With the increase in the influence of neoclassical economics in policy decision-making, a number of countries are employing BCR as a tool when decided whether to or not to implement a particular policy initiative (Heinzerling & Ackerman, 2004). However, it was noted that the tool of BCR has the tendency to ignore many important socio-economic factors such as societal values, continuous changes in the population density and associated externalities (Preston & Holvad, 2005; Root, 2003). Therefore, many developed countries, such as the United Kingdom, are more concerned about the environmental and social benefits of road projects (ibid). These countries are re-evaluating the BCR methods with a greater focus on externalities, acknowledging that these traditional road assessment methods have

weaknesses in calculating the benefits (Hanley & Spash, 1993, p. 7; Vickerman, 2000).

SACTRA (1992), for example, presents a 28 step process on the needs to build a road in which the formal evaluation methods (such as BCR) constitute only a small part. This process recommends several ways to address the contextual challenges such as 'making due allowance for the roads environmental effects' and 'keeping a balance between CBA and appraisal based on judgement' (ibid). Omega (2011), based on thirty case studies from around the world, concluded that mega transport projects indeed become 'agents of change' because of contextual challenges in terms of spatial, economic, environmental and other externalities. These contextual challenges are highly under-appreciated by the decision-makers (ibid).

As the credibility of traditional measurability tools is in question (Hanley & Spash, 1993, p. 7; Vickerman, 2000), the methodological assumptions linking roads investment with economic growth become dubious. Such assumptions may, therefore, give rise to uncertainty and risk in advancing massive roads infrastructure on the basis of the economic growth argument. However, there is generally a practice that transport planners heavily emphasise modelling forecasting expertise to justify road investments (Langmyhr, 2000; Wachs, 1982). This makes the determinism of BCR less effective in giving monetary values to road benefits, such as travel time saving and environmental impacts. Suppose, for example, a newly built highway has reduced the accident rate and enhanced the value of adjacent properties. In such a case, giving a monetary value to the rise in properties is an obvious benefit. However, giving travel time saving and safety another monetary value is multiple counting of benefits because property value has risen because of the benefits of travel time saving and safety. Because of the double counting of benefits, BCR has a tendency to systematically downplay the environmental and social concerns of road projects (Heinzerling & Ackerman, 2004; Næss, 2006).

Some countries use rules and regulations to strengthen their top-down approach in dealing with the BCR criterion by keeping strategic power with them. For example,

in New Zealand, the criteria of 'strategic fit' and 'effectiveness' were introduced in addition to the BCR criterion in advancing Roads of National Significance (Pickford, 2013). 'The top-down perspective refers to the hierarchical implementation of policies at different levels and across different sectors, whereas the bottom-up perspective considers grassroots initiatives from individuals and communities' (Mehmood & Franklin, 2013). The passage of the Local Government Act 2002 was earlier perceived as 'a quantum leap forward in community-led strategic planning in New Zealand' (Brosnan & Cheyne, 2010, p. 38). However, it actually did not happen because many roads with lesser BCR were advanced (BECA, 2011) mainly on the basis of *strategic fit* and *effectiveness* criteria (Pickford, 2013) suggesting an absence of community-led strategic decision-making. Such rules, regulations and practices in planning have weakened the argument of achieving economic efficiency (Pickford, 2014). It is possibly because planners keep changing these practices as per their legal and administrative requirements. For example, in periods of stable economic growth, planners usually rely on predictions by trend extrapolation (Langmyhr, 2000). However, trends are difficult to predict with certainty due to digital connectivity (Lyons, 2014). This suggests that future trends of transport are likely to face more complex challenges (Ministry of Transport, 2014a). These include, but are not limited to, higher use of the internet and less physical travel (ibid). In view of ever changing nature of externalities, therefore, the tools to measure economic growth need to incorporate such changes by engaging with people affected by the advancement of roading infrastructure.

As BCR attempts to yield the value for money of a project, its predictions are usually problematic because they are evaluated from the philosophy of science perspective in terms of numbers (Næss, 2006). Langmyhr (2000) believes that BCR may reduce uncertainty and risk if its assumptions and results earn credibility among the decision-makers. One way to get legitimacy is to debate BCR results in public forums and stakeholder meetings (Forester, 1989) because planning problems associated with transport are increasingly becoming 'wicked' (Langmyhr, 2000, p. 679). Cheyne (2015, p. 428) argues that communities have the ability to respond to

complex challenges and ‘wicked’ problems, such as urban growth and decline, requiring participatory planning and urban governance at the local levels. Here ‘wicked problem’ refers to a complex problem that can be a symptom of another problem (Langmyhr, 2000, p. 679). This dimension sets the stage for formal inquiry into the roles of discussions, better communication, and critical pragmatism in linking roads investments with economic growth. Therefore, the establishment of real links between roads investments and economic growth needs attention from several angles such as the real utility of BCR, the role of stakeholders and an understanding of the complexities involved in advancing transport and policy agendas.

2.4.2. Towards better solutions: can communication work?

With this background, road planners have two options: either to create policy processes addressing multiple goals through inclusive discussions and communication among stakeholders or adopt narrow technocratic procedures (Willson, Payne, & Smith, 2003). Technocratic procedures usually suggest fixed solutions by defining what is right/wrong or good/bad in a deterministic manner (Healey, 1992). In some cases, for example, local economic development is usually presented as ‘good’ while national economic intervention is treated as oppressive and ‘bad’ (ibid). In some cases, both national and local level development may be perceived as ‘good’. The real issue is what type of knowledge advances these kinds of perceptions among stakeholders. Flyvbjerg (2014) identifies four areas that attract policymakers to initiate mega-projects in disregard of the contextual problems associated with them: political, economic, technological and aesthetic. He calls these areas ‘sublimes’ for which the policymakers advance various justifications. For example, political sublime may seduce the politicians and bureaucrats to initiate mega projects for gaining political mileage (ibid). Economic sublime may attract big construction companies to get involved in mega projects for making money. Technological sublime may attract engineers and technologist to push beyond what technology can offer. They are, therefore, attracted towards

building tallest-fastest-longest type projects, Flyvbjerg argues. Aesthetic sublime, similarly, may lure architects and designers to initiate iconic structures such as the Golden Gate Bridge (ibid).

In this regard, it is important to understand how multiple interactions take place among stakeholders through the project development process (Healey, 2003). This process usually involves four phases: initiation, preparation, participation and continuation (Wilcox, 1994, p. 16). These phases involve the exercise of authority and power at various stages to decide the level of stakeholder participation in the decision-making process (ibid, p.4). The level of stakeholder participation decides how the top-down policies advanced by the powerful at the initiation level perceive the bottom-up trends in the other phases. In this regard, Healey (2003) argues that the phases involving project implementation are, sometimes, perceived as a negative process in which the top-down policies continually get frustrated by the bottom-up forces. The approach may, sometimes, result in the accountability of urban policies advanced by the powerful (Cavill & Sohail, 2004). These opposing forces shape the actual planning environment vis-à-vis the unilateral power of the top-down forces. The planning practices, therefore, has the tendency to exclude the powerless stakeholders in the decision-making process. Better communication and public discussions balance power relations in such decision-making processes.

Emphasising the importance of public discussions in planning and policy processes, Langmyhr (2000, p. 679) argues that 'blaming a planner for using rhetoric is like blaming a zebra for wearing stripes'. In democratic societies public forums for debate about policy decisions should be common and policy claims should be based on normative and empirical premises rather than relying on quantitatively fixed results (Goldstein, 1984). A participatory approach in transport planning and policy may, for example, addresses broader planning issues such as poverty alleviation (Fouracre, Sohail, & Cavill, 2006). The reason is that rationality is a collective process of giving reasons for beliefs with discussion enhancing rationality (Willson et al., 2003).

As mentioned earlier, some countries, such as the United Kingdom, have been re-evaluating their transport valuation methodologies (Vickerman, 2000). The valuation process DETR (1998) advocates community-based integrated transport planning (ITP) (Booth & Richardson, 2001) and provides the concept of local legitimisation of road projects by involving the local authorities and local communities. Here community-based ITP refers to public legitimacy and involvement in transport planning and decision-making (ibid). As DETR (1998) culminated into the 2000 Transport Act of the UK Government, its focus is still on the community-based ITP based on its two-tier system comprising local transport plans and regional transport strategies (Booth & Richardson, 2001). Although the proposed methodology is quite old and could not be adopted, it suggests devising clear transport strategies by taking the power of local authorities on board (Vickerman, 2000). Therefore, a planning strategy and its proposed projects, according to Mees (2003), must be a continuing participatory process. Sandercock and Friedmann (2000) also argue that participatory process brings together the relevant actors, civil society and the government corporate economy in such a way that everyone, particularly the powerless, is included. The participatory process defines how policies are developed and how the future policy directions are shaped by managing stakeholders (Varvasovszky & Brugha, 2000). This is one way of combining the wisdom of both experts and non-experts.

Stakeholder involvement may take place in two ways: formal and informal. Formal involvement is determined by formal legislations, organisational rules and regulations (Kendall, 2012). Informal involvement is possible through engaging communities as per their organisational norms, values and customs gradually and contextually (Chong, 2000). Flyvbjerg (2004, p. 289) argues that informal norms, values and practices are more important than formal rules with the capability to bring innovation in decision-making. The importance of taking stakeholders on board is widely emphasized in planning literature (Eden & Ackermann, 1998; Finn, 1996; Healey, 1997). In the absence of effective stakeholder participation, dubious

practices, in terms of advancement of national visions and ideologies, usually strengthen the top-down policy approach.

2.4.3. Why economic discourse?

Analysis of economic discourse is necessary for two main reasons: (1) it explains how visions and ideologies are advanced in linking roads investment with economic growth, and (2) it provides ways to undermine such visions so that such investment could enhance economic growth. Big road projects are usually long term and large scale likely to have unusually high policy and planning stakes (Peters, 2003). The visions and ideologies are floated to achieve authority at the strategic level by the powerful by initiating mega-projects. In this regard, Sager (1999) observed that there are different economic and political rationalities and forces in such projects. Therefore, sometimes, economically rational projects face political challenges and vice versa (ibid). It creates conflicting discourse which is usually a hurdle to holding a meaningful conversation with stakeholders (Klamer, McCloskey, & Solow, 1988, pp. 65-66) which is different from the actual social practice (Fairclough, 1992, 1995). In this regard, Skillington (1998, p. 457) argues that discourse is a social practice and it continues to build up ideological exposure by interpreting how this practice clandestinely works and reworks through discursive dimensions.

The interpretations are usually advanced politically by floating national visions or ideologies similar to Flyvbjerg's (2014) earlier mentioned 'political sublime'. For example, politicians may get attracted to initiate big projects close to the next elections because of their political ambitions. To achieve their ambitions, they may initiate some vision or ideology stressing that such projects will bring tremendous economic growth. As these visions are generally not supported by necessary robust research, they act as a dubious practice in strengthening the top-down approach of the powerful in advancing their agenda. It is, therefore, necessary to uncover the underlying ideological practices in linking investments with economic growth. Such an investigation may be carried out by identifying the storylines regarding the discursive practices on economic fronts (Peters, 2003). Imran and Pearce (2015), for

example, observe a 'developmental bias towards roads' in New Zealand based on the projections about higher property values, rising economic efficiency, industrial growth and economic prosperity and growth storylines.

To undermine dubious national visions, it is important to understand the working and reworking of hidden practices inherently involving politics in the roads decision-making process (Banister & Berechman, 2001; Flyvbjerg, 2014). Favourable political conditions, in terms of unbiased political visions, for example, provide a better decision-making environment in which power is exercised (Banister & Berechman, 2001). In the presence of politics, therefore, the real context of a road project remains socially constrained because power relations may not allow the social actors to take strategic economic decisions. For example, the tallest-fastest-longest type projects are based on such national level dubious practices in which their actual benefits are determined by the political, aesthetic and economic factors rather than the ground realities [see, for example, Flyvbjerg (2014)]. Similarly, Black (2001) argues that politicians and planners justify roads investment for achieving economic growth through dubious practices. Klammer (2001), therefore, rightly argues that economics is all rhetoric and the economic discourse is socially constrained. The discourse formations are built and used within a complex structure of social relations when it comes to socio-political aspects (Skillington, 1998). For example, some politicians may get trapped into initiating iconic structures on the basis of political, economic and aesthetic motives such as the Golden Gate Bridge in the United States (Flyvbjerg, 2014). Therefore, the ideologies and visions behind such projects need a tight scrutiny by distinguishing between the language used and the action taken in the decision-making process and the policy advancement.

Some authors, such as Klammer and McCloskey, favour dissolution of distinction between the language and action (Klammer et al., 1988, p. 66). The difference between the language used and the action is very important in understanding the advancement of visions and ideologies [see, for example, Fairclough (1995)]. Therefore, in the presence of dubious national visions, the language used in policy

documents and the consequences achieved after the project execution are likely to be different. Such a difference in planning practices gives rise to the notion of pragmatism. The theme of pragmatism needs to be interpreted to investigate how the visions are perceived and how they actually deliver in line with what the literature suggests. This can be done by identifying storylines advancing such national visions and ideologies. Low and Odgers (2012) argue that storylines shape urban transport policy which then acts as a political tool in legitimizing such policy. Sometimes the media reports are helpful in identifying the relevant storylines and the discursive practices working behind the advancement of dubious national visions. However, as the media reports may tend to repeat storylines uncritically, other sources of data may also be consulted. This suggests that an analysis of the language used and action taken is necessary for understanding the underlying rationalities claiming to achieve economic growth by building roads.

The literature reviewed in this chapter shows that the link between roads investments and economic growth is predominantly determined by quantitative methods advanced by different discourses. However, these methods do not appreciate flexible contextual sensitivities, such as values, interests and power, in their fixed approaches. The literature recognises the shortcomings of claims about the link between roads investment and economic growth, which is based on poor quantification of benefits and costs of roads investment and, therefore, a questionable assumption about economic growth. However, it is not clear, what is the relative degree of influence contextual challenges have on measurement benefits of investment, which marks a gap in the existing literature. This gap leads to following primary research question:

How are arguments for economic growth advanced to promote new road projects?

2.5. Conclusion

The purpose of this chapter was to identify the link between roads investment and economic growth. It was observed that the relation between building roads and achieving economic growth is unsettled. Historically, economists and planners have met successive failures in establishing a clear relation between roads advancement and economic growth. However, there is a general perception that economic growth can be enhanced by expanding roads. Generally, economic growth theories predominantly follow a natural science approach based on mathematical modelling and determination. This approach has resulted in the emergence of a number of economic growth theories with sole dependence on episteme and techne. As a result, the benefits of road projects are likely to be counted multiple times. However, there are several factors that inhibit economic growth on economic, social, environmental and spatial fronts – called externalities. Externalities shape the contextual challenges in urban environments which could either be favourable or detrimental for achieving economic growth. It is argued that the economic, social, environmental and spatial externalities carry great importance in understanding the practical relevance of roads investment in developed and developing countries.

It is also argued that traditional tools used to measure of economic benefits of roads have limitations in incorporating the effects of economic, social, environmental and spatial externalities. These tools, therefore, have the tendency to ignore the contextual challenges involved in the advancement of road projects. Furthermore, the politicians and governments have their own political, economic, technological and aesthetic motives to initiate big road projects. Because of these motives, they may float unrealistic visions which then create dubious practices in linking roads investment with economic growth. It is necessary to undermine such practices for effectively enhancing economic growth by advancing roads. This suggests a greater focus on practical issues supported by the literature so that new and better practices could be introduced in transport planning that could effectively

relate roads investment with economic growth. In this regard, the Greek concept of phronēsis needs attention which, as a context-dependent virtue, has the potential to effectively contain the contextual challenges associated with advancing roads for achieving increased economic growth.

CHAPTER THREE

Practical Wisdom – the Master Virtue

The fundamental concept in social science is Power, in the same sense in which Energy is the fundamental concept in physics (Russell, 1966, p. 11).

3.1. Introduction

This chapter outlines the theoretical framework used in this thesis. Based on the literature review in chapter 2, it is observed that phronēsis may be the missing link in relating roads investment with economic growth in the same sense as practical common sense is the missing link between the experts and the little boy. It is observed that modern economics, based on its predictive models, has limitations to analyse power relations in the real world. Phronēsis inherently focuses on values and power which makes it a useful concept to understand contextual urban planning practices. This chapter is, accordingly, divided into three parts. The first part explains the term phronēsis as an Aristotelian concept with power as its inseparable component. This section also explains how power, context and perception remain mutually conjoined presenting a critical analysis of relevant power theories from the current research perspective. The third part contains a detailed account of Bent Flyvbjerg's Phronetic Planning Research concept and makes a case for its utility as the theoretical framework for this thesis.

3.2. Phronēsis, urban planning and decision-making

The division of knowledge into episteme, techne and phronēsis was advocated by Aristotle in Book VI of his *Nicomachean Ethics* (Aristotle, c.350 BCE). In this book, the term *virtue* refers to a positive quality or trait necessary for moral excellence. The opposite of virtue is the term *vice* which means negative or immoral character trait. Virtue is a point between a deficiency and an excess of a trait determined through a golden mean. The term '*golden mean*' is the desirable middle between two extremes. For instance, bravery as a virtue may stand at a middle way between two extremes or vices of hooliganism and cowardice. Therefore, the golden mean

may bring forth virtues from vices. Aristotle defines and distinguishes between two intellectual virtues revolving around the notion of 'wisdom'. The first is *sophia* or 'theoretical wisdom' which combines both *nous* and *episteme* and may be treated as equivalent to science. The term *nous* refers to intellect or intelligence mandatory for understanding truth. *Nous* is, sometimes, equivalent to the term *perception* with the exception that it works within the mind or the mind's eye (Rorty, Williams, & Bromwich, 1980). The term *mind's eye*, though not fully understood biologically, refers to the human experience of visualising mental imageries of things in a given context (Ishai, Haxby, & Ungerleider, 2002). *Episteme* or epistemology is referred to as true and certain knowledge (Eisner, 2002). It is universal, invariable and context-independent virtue (Flyvbjerg, 2004). *Techne* or technology is usually treated as an art or craft which is pragmatic, variable and context-dependent (Flyvbjerg, 2004; Poulakos, 1983).

The second virtue is *phronēsis* or 'practical wisdom' which is an intellectual virtue 'reasoned and capable of action with regard to things that are good or bad for man' (Aristotle, c.350 BCE). *Phronēsis* also means wise practical reasoning in contrast to *episteme* and *techne* (ibid, pp. 206-225). *Phronēsis* involves knowing what is best or appropriate action in given circumstances (Jamal, 2004). It is a pragmatic, variable and context-dependent virtue (Flyvbjerg, 2004). As given circumstances or context determine a phronetic action, *nous* becomes part of *phronēsis* to the extent of perceiving a problem. Unlike *sophia* or science, *phronēsis* is sensitive to the facts of a case in which its generalisations are fallible, approximate, self-reflective and action-guiding rather than stating what is true or false (Fitzpatrick, 2011).

Phronēsis, therefore, generates four basic themes and eight sub-themes required to solve a problem. The first theme is the 'perception of a problem'. This theme may be divided into two sub-themes: 'context-independent perception' and 'context-dependent perception'. As humans form different imageries of the same problem through the mind's eye (Ishai et al., 2002), 'handling different perceptions' becomes the second theme. This theme may also be divided into two sub-themes: 'handling

negotiable differences’ and ‘handling non-negotiable differences’. As perception through the mind’s eye is not a biologically understood phenomenon, ‘defining pragmatics of the mind’s eye’, therefore, becomes the third theme. As the mind’s eye makes images on the basis of some presuppositions and structures (ibid), this theme may also be bifurcated into two sub-themes: ‘defining presuppositions’ and ‘defining perceptive/linguistic structures’. Finally, ‘bridging differences through the golden mean’ becomes the fourth theme. It constitutes two more sub-themes: ‘avoiding extremes or determinism’ and ‘suggesting mid-way practical solutions’.

3.2.1. Phronēsis in the context of urban planning

Current urban planning practices, according to Davoudi (2015), are highly overburdened with evidence based approach in which the utility of development projects are assessed on the basis of robust evidences. This approach is increasingly following the Aristotelian virtue of *sophia* or science in which episteme plays a pivotal role. As the role of episteme is technically confined, Max Weber treats science as a vocation (Heller, 1989). Nietzsche believes that ‘science had been invented in order to fend off truth’ (ibid). In this perspective, Flyvbjerg (2001, p. 53) argues that the strength of natural science lies in predictive theory and the strength of social science lies in reflexive analysis of goals, values and interests. In this sense, according to Schram (2012, p. 15), the natural and social sciences are different enterprises altogether.

The focus of natural science on ‘consequences’ and that of social science on ‘values’ give rise to the notions of *instrumental rationality* and *value rationality* respectively. Instrumental rationality refers to a social action taken after assessing the consequences of that action (Weber, 1978). For instance, seeking economic growth through roads building based on technological tools, such as BCR, are based on instrumental rationality. Value rationality, however, refers to social actions in which values are preferred over consequences (Parsons, 1947). For example, the practice of providing spaces for dialogue and learning in the policy and decision-making processes are based on value rationality (Owens, Rayner, & Bina, 2004). In terms of

economic growth and productivity, all quantitative models forecasting economic growth rates are based on the philosophy of instrumental rationality. There are, however, models which emphasise social values and power in defining the terms 'economic growth' and 'productivity'. For example, Siegmann and Majid (2014) emphasise incorporating power with economic growth by focusing on local challenges. This suggests that the approaches of the social and natural sciences predominantly reflect value rationality and instrumental rationality respectively.

Social theorists Max Weber, Michel Foucault and Jürgen Habermas note that value rationality is increasingly giving way to instrumental rationality (Flyvbjerg, 2001, p. 5). This suggests that the social sciences, including urban planning and policies, are increasingly following a 'consequence based' instrumental approach in which fixity and control is preferred over values and flexibility. Flyvbjerg (1998a; 1998) strongly advocates such a division and emphasises applying *phronēsis* in transport planning and mega projects with a goal to achieve values rather than consequences. The reason for this emphasis is that each mega project or transport project is a distinct case which needs specific attention and may not be judged within the narrow confines of general rules. This approach may not generate new theory but praxis based on contextual realities. The difference between theory and praxis is articulated by Caterino (2006, p. 135) arguing that theory usually constitutes a realm of constant unchanging truths whereas praxis refers to a realm of changing uncertain knowledge by involving in social life. Laitin (2006, p. 33) opposes such division between social and natural sciences methodologies arguing that Flyvbjerg 'does not provide evidence on the degree to which the natural science research meets his standards'. Schram (2004, p. 417) disagrees with Laitin by arguing that Flyvbjerg's approach 'does offer an important corrective to the scientific drift of political science research'.

Nowotny (2005) supports Flyvbjerg's approach by arguing that the unshakable belief of modernity in planning based on predictability and cause-effect relationship is over. Bohman (2002) also comes to a similar conclusion by drawing a distinction

between knowledge and practical knowledge. He observes that epistemic claims lie in some kind of practical context which differentiates 'epistemology' from 'practical epistemology'. He argues that practical epistemology is particularly relevant to social science because of its practical approach. He, thus, supports incorporating *phronēsis* by taking all dimensions of a social problem and all the relevant actors on board. The distinction between these approaches, focusing either values or consequences, suggests that flexible context is always different from fixed rules. As events take place in the context of object-relations against naturally occurring conditions (Clegg, 2006a, p. 171), therefore, context cannot be reduced to rules (Wittgenstein, 1999). This suggests that, while applying *phronēsis* in urban planning issues, contextual values need to be preferred over rigid rules. With such a diverse range of arguments, it is necessary to understand the source of strength of *phronēsis* in the social science and urban planning contexts.

3.2.2. Power as an inseparable component of *phronēsis* and decision-making

Power entails a set of actions done on another person's actions and reactions (Foucault, 1977). Power may also be defined as 'influence or the outright exertion of force' (Hanna, Talley, & Guindon, 2000). The initial problem to define power is to recognise its particular features with regard to social relations (Wrong, 1968). As people exercise mutual control and influence over each other's behaviours, power has to be caused by someone thus making it a causal phenomenon (Wrong, 1968). In the past, however, power was considered a non-causal phenomenon because the actors were not deemed to cause it and its understanding was limited (Clegg, 2006a, p. 176). It could, therefore, not be related with *phronēsis* in the past. Since the time of the famous philosopher Thomas Hobbes, however, power is treated as a causal concept determined by the actions of the actors involved (Clegg, 2006a, p. 176; Dahl, 1957). The shift was based on the observation that for gaining or losing power someone had to do something (Clegg, 2006a, p. 176). The observation was further strengthened by Bachrach and Baratz's (1963) earlier debate on 'non-decision-making' and 'nonissues' (little things). They attempted to anticipate things

that should have happened but they did not. This suggests that ‘they were more interested not in the things that did happen, but the things that did not’ (Clegg, 2006a, p. 176). Being highly improbable in occurrence, the ‘things that did not happen’ come as a surprise in planning issues with tremendous effects on a project (Taleb, 2011). This observation was formulised as *the black swan theory* (ibid). The theory refers to those unexpected events of large magnitude that come as surprise despite being highly improbable in occurrence.

Such improbable occurrences, however, do not deny the fact that power is not just an inherent character of particular actors because it also acts as the outcome of specific strategies (Foucault, 1977). This strategic relationality is illustrated by Dahl’s (1957) example. Supposing, I start commanding people to drive on the right side of the road telling them I have enough power to do that. Some people might obey me but most of them will think that I am mentally retarded. However, if a policeman commands the people to drive their cars in a particular direction of the road, they will obey him. It is because the action of the police officer is an exercise of power, whereas power itself lies in the strategies pursued by the police department and the government to control traffic. This example suggests that power is not just the exercise of authority but a wider concept in which power, as a relational concept, emanates out as an outcome of visions, ideologies and strategies. As Russell (1966, p. 9) rightly pointed out that ‘everyman would like to be God, if it were possible; some few find it difficult to admit the impossibility’, it is about admitting or not admitting the ‘impossibility’. Such impossibilities are handled by advancing certain ideologies, strategies and visions to gain power by adopting a particular decision-making process. In this regard, Callon (1998, p. 261) argues that once ‘the possible world states are already known or easy to identify: calculated decisions can be taken’. In that sense, governance is all about applying specific strategies ‘as an arrangement of governing beyond-the-state’ (Swyngedouw, 2005). For example, the National-led government’s strategy of enhancing economic growth by building RONS is based on some political vision which is different from the power exercised by the NZTA, say, in finalizing the route alignments and carrying out public

consultations. This suggests that power, as a social relation, has special features different from exercise of power by one actor over the other (Wrong, 1968).

The concept of comparability of power, therefore, stands at the core in understanding the wider concept of power beyond its mere exercise by the actors. It is, for example, generally believed that Stalin was more powerful than Roosevelt and that McCarthy was less powerful than before when the Senate censured him (Dahl, 1957). Unless the terms 'more powerful than' and 'less powerful than' are defined, such perceptions of power are based on their relative comparisons. Russell's (1966, p. 9) distinction between 'power' and 'glory' is another example of comparisons based on the argument that 'Prime Minister has more power than glory, the King has more glory than power'. However, in relational terms, the best way to attain glory is to gain power suggesting that both notions may be regarded as the same (ibid). Therefore the desire of power is contained in visions and strategies which may act as the sources of power depending on the extent to which such strategies are ready to admit 'impossibilities'. The notion of 'technological economy' (Barry & Slater, 2002), for example, reflects the power contained in specific strategies to challenge 'impossibilities'. As most decisions involve politics, 'focusing on the technology of politics makes politics too much of a technical and instrumental matter' (Barry, 2002). Dealing with impossibilities, therefore, marks the troubled area between 'ambition' and 'reality' (Flyvbjerg, Bruzelius, & Rothengatter, 2003) through such strategies as *'quis custodiet ipsos custodiet'* – or 'who rules the rulers, guard the guardians, oversees the overseers' (Wrong, 1968). This suggests that power, in addition to being causal, is a wider concept in relational terms which is not just confined to its exercise by particular actors but rather encompasses those ways and means which challenge real impossibilities through ambition. Underestimation of costs and overestimation of benefits of mega projects, for example, is a result of such power dynamics (Flyvbjerg et al., 2003).

Many arguments, however, revolve around the importance of nonissues or little things suggesting that power is a causal phenomenon. One such nonissue, for

example, was the chances of the world's largest tunnel boring machine Bertha to be stuck during the underground highway construction in Seattle in 2015. However, actually Bertha got overheated and stuck during construction causing several other complications putting a question mark on the credibility of the Seattle tunnel decision-making process (New Yorker, 2015). The example shows how big events come as a surprise highlighting the critical issues of the decision-making process in which power plays a pivotal role. Here *little things* also refer to those insignificant issues or practices in urban planning which, Flyvbjerg (2004, p. 284), terms as taken-for-granted truths. For example, if a junior clerk in a local council, having no authority in the decision-making process, just puts his initials on some files to assist his seniors; this practice may apparently be a little thing, but the consequences of putting initials may have huge impacts on the entire decision-making process (for details, see, Flyvbjerg, 1998b, pp. 174-182).

In line with four themes and eight sub-themes of *phronēsis* outlined earlier, four dimensions of power connect it with *phronēsis* and decision-making: power as perception, power as relationship, power as enabling or disabling agent, and, power as prerogative. The first dimension of power is perception, which is itself power, because perception is related with exercising the power of awareness such as recognition, cognizance and noticing (Hanna et al., 2000). For example, when an employee is promoted by a company to the next level, his perception as an employee is changed because of greater recognition, cognizance and noticing. Therefore, perception, decision-making and values remain interconnected (Ravlin & Meglino, 1987). Perception is also a synonym of Sternberg's (1986) term 'perspicacity' which, being a characteristic of wisdom, means the ability to see beyond appearances or read between the lines. The actors' perception through pre-conceived ideas or notions behind the power of perception may be context-dependent or context-independent. For example, state bureaucracies derive their socio-political power from the rules and regulations of a government. Their perception of power is context-independent, in the sense, that a change of government may not change their administrative powers under the rules. For the

common people, however, the perception regarding a change of government is context-dependent because the new government policies will influence their lives. Furthermore, the perception of planning as an interactive process underscores several government activities shaped by various economic, social and environmental forces (Healey, 2003). In this context, powerless actors often develop their perceptive abilities against the powerful as a means of surviving or coping (Miller, 2012).

Transport decision-making, according to Edwards and Mackett (1996), is not purely based on some objective criteria, therefore, powerful actors feel justified in ridiculing or stereotyping the powerless actors (Hanna et al., 2000). This approach may also be advanced through certain ideological agendas in stabilizing their power at the local government level. However, according to Cheyne (2015), it is rather a robust assessment of efficiency and effectiveness gains and losses that matters. This requires stable and just power relations in the decision-making process through democracy and accountability. Therefore, the improvements in the quality of public places, such as roads, depend on the governance capacity based on the quality of local policy cultures (Healey, 1998). For example, the cost of building Pakistan's Terbela dam quadrupled because of an unexpected 384% rise in inflation contrast to the decision-makers assumptions of 7.5% rise only (New Yorker, 2015).

As perceptions, both negotiable and non-negotiable, are handled through some kind of relationship, the relationship becomes the second dimension of power. In this regard, Foucault (1977) treats power as relationship by establishing a link between power relations and creativity of knowledge. He observes that power relations do not exist without the creative constitution of a field of knowledge (Clegg, 2006a, p. 174). Foucauldian power, therefore, resides in relationships because power relations are unstable, complex and part of social construction in which repressed group is dominated for the benefits of the oppressors (Taylor & Hallsworth, 2000). For example, a local authority may claim to be pro-community in finalising a new road route. The affected people under its administrative power,

however, may perceive the authority's claim as clandestine institutional exploitation because their fates depend on the decision-making of that agency working under some institutional rules.

It is because power inheres in institutions rather than individuals making those institutions function (Foucault, 1977). Foucault focuses on the principles of order and control that tend to de-personalize power with an appearance as if power inheres in the prison, the factory or some institution (ibid). As knowledge constitutes all three intellectual virtues of Aristotle, power becomes an inseparable component of *phronēsis* because of contextual sensitivities involved in the generation of creative knowledge. Following Foucault's approach, planning may be associated with the dominating power of systematic reason (Healey, 1992). In the decision-making process, Foucault reminds us of the crucial importance of power in controlling and shaping of discourses, the social construction of spaces and production of knowledge (Flyvbjerg & Richardson, 2002). Foucault, therefore, presents power as local, relational and productive rather than hierarchical and oppressive suggesting opportunities for change (McNay, 2013). In the transport decision-making processes, both individuals and institutions experience and exercise power at various levels.

The third dimension of power is its ability as an enabling or disabling agent in the decision-making process. This ability is the practice of imposing something that is harmful to or undesirable for the interests of a person or group (Hanna et al., 2000). This dimension may also be called *oppression* which may take place overtly or covertly. In overt or obvious oppression, the oppressor perpetrates it through force or deprivation (ibid). Countries having martial laws or military regimes, for example, may experience this kind of oppression. In the transport policy context, such oppressions may take the form of dictatorial policies with strict top-down approach. In democratically advanced countries, covert or clandestine oppression usually takes place through advancing ideologies and specific interest-based interpretations of rules and regulations. In covert oppressions, the oppressed usually does not

know that he is being oppressed (ibid). In the transport policy context, limited participation of the stakeholders in the decision-making process reflects this kind of oppression.

Historically, dominant groups may be more or less oppressive but their interest in power, status and wealth remains consistent across countries and cultures (Garraty & Gay, 1981). The power of such groups is based on certain presuppositions enabling or disabling them in affectively governing in the corridors of power. For example, advancing roads on the basis of achieving economic prosperity is a presupposition on the basis of which the Pakistan Muslim League (Nawaz) [PML (N)]-led government was re-elected in Pakistan's Punjab province in 2013 elections. Therefore, according to Berstein (1991), no interpretations are made without presuppositions. In explaining presuppositions, language plays a pivotal role because it has the power to create and present epistemological traditions and codes (Gadamer, 1975). Therefore, the language of policy documents is indeed reflective of the political and economic presuppositions behind.

Language also has the power to translate presuppositions into visual interpretations. This suggests that before accepting text as valid data, one needs to understand how this text was generated (Fuhrman & Oehler, 1986). This dimension highlights the importance of text and language as power and discourse to advance certain ideologies particularly on economic, political and social fronts. Therefore, the city as a site of complex processes revolves around several urban phenomena determined by semiotic, visual, linguistic and textual representation (Mele, 2000). This makes discourse relevant to cities because it informs the making and breaking of urban processes (ibid). This dimension helps to understand the ideologies and visions advanced through specific linguistic and textual representations, for example, in linking roads investment with economic growth in developed and developing countries.

The ability of power to act as a prerogative in the decision-making process is the fourth dimension. As community problem-solving and decision-making is the area

of expertise of technicians and planners (Aleshire, 1970), power itself acts as prerogative. The treatment of power as prerogative may also be referred to as 'hegemonic planning practice' in which the power of interpretation falls in the hands of technicians and planners (Miraftab, 2009). For example, the public consultation process in advancing road projects. Therefore, power as prerogative also tends to act as mediatory in bridging differences usually through hegemonic practices. Such hegemony brings forth fixed solutions in which extremes are preferred over the middle-range.

Lukes (1974), in his debate with Marx and Nietzsche on power, explains the term *hegemony* within the broader social theory agenda in which power is constituted within practical social contexts. For example, hegemonic policies such as water privatisation may be advanced on the grounds that they achieve economic efficiency (Miraftab, 2009). As practice defines practical contexts, Gadamer (1982) focuses on practical issues and highlights the importance of practice in the exercise of power and decision-making. He treats practice as choosing and deciding something against something. Flyvbjerg (2001, p. 55), however, argues that Gadamer's approach of *phronēsis* overlooks power issues. The analysis suggests that power is constituted within practical contexts of social science and urban planning. Power, therefore, remains an integral part of *phronēsis* and decision-making.

3.3. Power, context and perception in a theoretical perspective

Power, context and *phronēsis* are intertwined because of two reasons. Firstly, *po*[wer] is an integral component of *ph*[ronēsis]. Secondly, *phronēsis* is a *c*[ontext]-dependent virtue (Flyvbjerg, 2004). This suggests that if there is no context, there is no *phronēsis*. This further suggests that if the component 'po' is an integral part of 'ph' which, in turn, depends on a third part 'c', then 'po' also becomes an integral part of 'c'. This makes power not only an integral part of *phronēsis* but also that of context. Theoretically understanding context, therefore, means understanding power and *phronēsis*.

Context usually depends on situational variables; its definition, therefore, varies in different environments and perceptions. Context, sometimes, refers to surroundings in which organisational policies are formulated (Cappelli & Sherer, 1991). For example, the Finland-Estonia undersea railway project may face a similar contextual drilling fiasco as was unexpectedly faced by Bertha in the Seattle tunnel drilling depending on the situational variables. Context may also include stimuli and phenomenon existing in an environment external to an individual based on his perception (Mowday & Sutton, 1993). For example, some corporate executives may expect their clerks to display smiles on their faces during working hours (ibid). Such practice may be a stimulus for the company's growth but forced smiles remain external to the environment of individual clerks. Context also refers to those situational opportunities and constraints which may affect the occurrence and meaning of functional relationships between actors in the decision-making process (Johns, 2006). Clegg (2006a, p. 175) treats context as regular actions which will empirically be situational.

In terms of the link between roads investment with economic growth, context refers to all those challenges⁹ which inhibit or promote economic growth and productivity through roads building. Most people believe that context needs to be understood in some kind of operational framework such as policy formulation and implementation (Bate, 2013). Discourse in policy formulation, for example, may be one such framework suggesting a particular way of arguing and perceiving in a particular context to justify the values of a society (Sutton, 1999). In policy analysis, the notion of context is not strictly theoretical, rather, it represents a situational, social, historical, geographical and/or cultural environment in which, for example, a policy has been perceived, formulated and implemented (Dijk, 2007).

The relation among perception, policymaking and decision-making may be related with *balance theory* focusing on ego's perception of one's socio-metric relations and its impacts on formation, development and maintenance of social relations

⁹ These challenges also refer to positive and negative urban externalities as discussed in Chapter 2.

(Boster, Johnson, & Weller, 1987; Heider, 2013). Therefore, the term *perception* means identification, organisation and interpretation of sensory information to understand and represent the surroundings (Schacter, 2011). Perception is framed by memory, learning, attention and expectation (Bernstein, 2013). It consists of two main processes (ibid): (i) transforming low level information into higher level information such as extracting shapes by recognising objects (Figure 2) and, (ii) processes connected with a person's expectations and concepts – called knowledge.

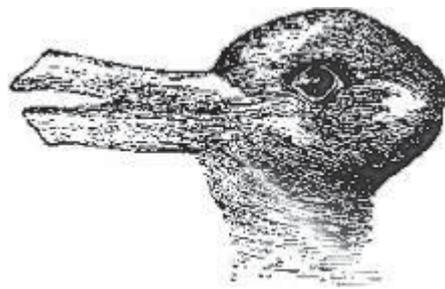


Figure 2: Do you see a duck or a rabbit, or both? (Jastrow, 1899)

All epistemological and rational solutions of transport planning problems fall in this category of perception. Accordingly, perception constitutes two main themes: perception as local memory and perception as public learning.

Perception as local memory juxtaposes how local norms, values and belief systems are evolved through perceptual memory processes. Memory is a process in which information is stored, encoded and retrieved (Bernstein, 2013). Four sub-themes may be identified under this category: quick perception, short-term perception, long-term perception and permanent perception (Atkinson & Shiffrin, 1968; Baddeley, 1966; Cowen, 2001; Sperling, 1963). Quick perception takes places through *sensory memory* which holds information for less than a second (Sperling, 1963). For example, it is not possible to remember all the numbers of hundreds of cars moving on the roads. *Short-term perception or memory* enables recall for several seconds to a minute (Cowen, 2001). For example, recalling the bus number on which one travels occasionally, say, once a month. *Long-term perception or*

memory can retain huge information for very long times thus making them a part of our social norms (Baddeley, 1966). For example, voluntarily offering a seat to the old people or women in public transport as part of information learnt and retained since long. Finally, *permanent perception* transforms memories into belief systems and local values (Atkinson & Shiffrin, 1968). For example, the belief among some politicians that since Bus Rapid Transit (BRT) (locally called metro bus) played a vital role in economic progress of Istanbul - Turkey, it must also be introduced in Pakistani cities (Aziz, Rehman, Haider, & Malik, 2015).

Perception as public learning illustrates the interpretation of organised patterns and objects by a certain class or group of people under certain group principles such as common interests, cultural values and norms (Weiten, 1998). For example, the user perception of public transport quality may change depending upon what category of passengers is using it (dell’Olio, Ibeas, & Cecín, 2010). The mechanics of this change may be categorised under three sub-themes: visual group perception, actors’ desire for perfect solutions and actors’ common interests. The visual group perception takes place through the principles of *proximity* and *similarity* of certain projects (Koffka, 2013). For example, a motorway built in Australia may stimulate certain groups to build a similar road in New Zealand because of the physical proximity of New Zealand and the close relationship of the two countries. Under the *law of closure*¹⁰ and *principle of good continuation*¹¹, groups desire to seek perfect solutions in terms of the figures or forms they perceive (Nevis, 2014). For example, certain groups may keenly desire to complete the Southern half of Lahore Ring Road, given that one half is already completed so as to achieve its continuation and closure.

In line with these themes, the idea of *perceived social similarity* explains individual perceptions and actions of a network’s actors in the decision-making process (Burt, 2013; Johnson, 1986). Determining *perceived social similarity* in particular instances

¹⁰ Refers to mind’s tendency to perceive complete pictures even when they are incomplete

¹¹ People tend to perceive in a continuing and uninterrupted way

depends on a traditional kind of socio-metric data such as ‘who are the people you talk to most often?’ (Boster et al., 1987). Such similarities are determined by the actors’ ties without questioning actors’ own judgements of their social similarity with other networks. The link between context, perception and decision-making, therefore, remains intact (Bate, 2013; Chalmers, 1997). In this regard, Delbeouf’s illusion, as shown in Figure 3, deserves attention. The two black circles are exactly the same size, but the one on the left side looks bigger. This is because of the context in which the two circles are placed. The notion of economic growth, for example, when applied in the contexts of developed and developing countries, may, therefore, have different meanings. Context is, therefore, pivotal in determining realities (Allenby, 1998; Underwood & Richards, 2013).

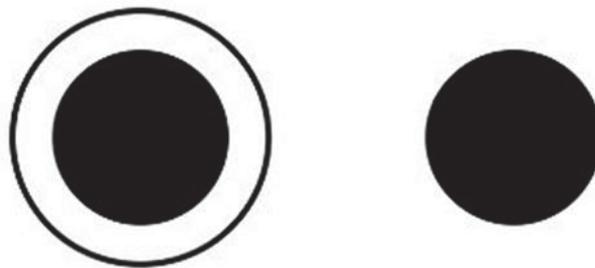


Figure 3: The Delbeouf’s illusion in which subjects were required to rank the disks, in white and black colours, as a function of size [Source: Nicolas (1995) and Roberts, et al. (2005) based on the original drawings of Delbeouf (1865)].

Based on the Delbeouf’s logic, it may be argued that economic growth itself needs to be empowered within local contexts [see, for example, Siegmann and Majid (2014)]. For example, over 80 per cent of trips in developed countries cities are in cars. Therefore, investment in roads is justified to relieve congestion and improve mobility for economic growth (Imran, 2010). However, over 80 per cent of trips in developing world cities are in sustainable transport (walking, cycling and public transport). Therefore, investment in roads is justified to alleviate poverty and for the provision of jobs to the poor with the aim of ultimately enhancing economic growth (NESPAK, 2009a). This example shows that investment in roads is justified as per the context to get legitimacy or acceptance from the public. The example also

shows that contextual realities may be used to advance a particular policy or investment. Lack of understanding of contextual issues may, therefore, lead to policy failure in the beginning (Ali & Zhuang, 2007; Siegmann & Majid, 2014).

Each of the earlier defined themes and sub-themes primarily depend on context. For example, *perception of a problem* and *handling different perceptions* need analyses of contextual realities and local value-systems. Similarly understanding a mind's pragmatics and bridging the differences of opinion among the concerned actors is also a contextual phenomenon. Handling contextual challenges, therefore, requires understanding little or common things in an unfamiliar way, called defamiliarization¹² (Crawford, 1984), to undermine the dubious practices through problematization¹³ (Flyvbjerg, Landman, & Schram, 2012, p. 6). This suggests that the illustration of each theme depends on context. A transportation problem, therefore, cannot be solved without exploring the context in which it is placed (ICF & Berger, 2012). The real issue is, therefore, not the problem rather it is the perception of a problem in particular contexts in which power is exercised. Allmendinger (2009), based on Chalmers's *problem of perception*, uses a staircase as an example to show that theory is like a staircase, as shown in Figure 4, and it depends on the viewer to see it either from above or below. From this example, he infers that a theory may not be wrong rather the perception by which it is viewed may itself be wrong. The staircase example also indicates the vulnerabilities involved in generalising contextual sensitivities as a theory as part of epistemological traditions. In this regard, the context theories have been changing over time. Based on this argument, the concept of critical context assessments was presented as similarity, identity and difference (SID) index in which context was presented as something 'similar to', 'identical with' and 'different from' its surrounding (Turner, 2004). The above analysis of power, context, perception

¹² A technique used to enhance the perception of little or common familiar things.

¹³ It is a method of defamiliarization of common sense by presenting the existential or contextual situation in which the problems are treated as challenges (Crotty, 1998, p. 156).

highlights the need for a critical analysis of theories about the link between roads investment and economic growth focusing on changing power relations.

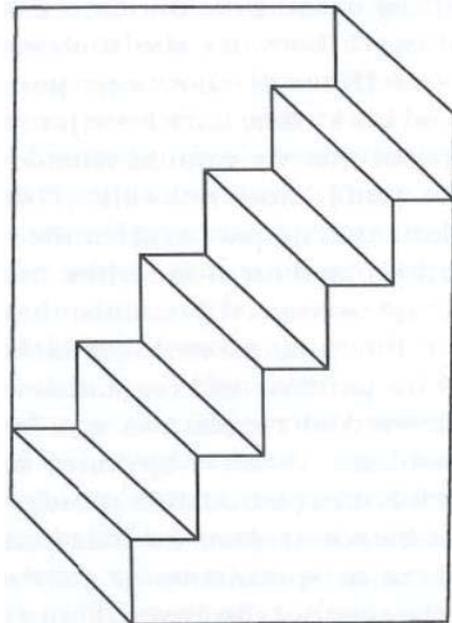


Figure 4: The problem of perception (Allmendinger, 2009, p. 6).

3.3.1. A critical analysis of relevant theories incorporating power, context and phronēsis

There are six social theories that may explain and incorporate power, phronēsis and context in policymaking and decision-making: (i) resource dependency theory, (ii) the theory of power dependence, (iii) advocacy coalition framework, (iv) path dependency theory, (v) actor-network theory, and (vi) phronetic planning research. Each of these is discussed.

Resource Dependence Theory (RDT) explains organisational and inter-organisational relations based on resources (Johnson, 1995). Pfeffer and Salanick (1978) argue that the external resources of other organisations determine the behaviour of an organisation. These resources include financial, technical or knowledge-based and human resources that different organisations share with each other at vertical or horizontal levels. The concentration of resources is, therefore, pivotal in determining the intensity of an organisation's power over other organisations.

Pfeffer and Salancik (1978) and Hillman, et al. (2009) argue that the behaviour of an organisation cannot be understood without knowing the context in which the resources have been accumulated. As RDT emphasises understanding context, it has the tendency to incorporate *phronēsis* in understanding organisational behaviour. For example, the contracts awarded to National Engineering Service Pakistan (NESPAK) by the Punjab government determine its size in terms of its employees, offices and organisational behaviour.

The theory has been useful in understanding how organisations work with other organisations in complex interdependent relationships (Hillman et al., 2009). Salancik (1979) argues that the power of organisation A over organisation B is dependent on organisation B's dependence on organisation A's resources. RDT, therefore, considers power to be a mutual, relational and situational entity. In RDT, interdependencies remain the main reason why organisations are unable or able to achieve their goals (Pfeffer & Salancik, 1978, p. 40). RDT has been combined with several other theories as well. For example, Gulati (1995) integrates RDT with network theory which emphasises on the socially-embedded context of firms. Saxton (1997) combines RDT with organizational learning and game theory for the understanding of partner power through a longitudinal study involving 98 alliances. RDT was also combined with various other theories such as agency theory, Joint Ventures (JVs) control structures, transaction cost theory, and the concept of partner complementarity (Elg, 2000; Hillman et al., 2009; Kumar & Seth, 1998; Murray, Kotabe, & Zhou, 2004; Steensma, Marino, Weaver, & Dickson, 2000).

RDT was considered relevant for this research because of four reasons: First, it incorporates the vital question of resources and power in the decision-making process. Second, it offers a unified theory of power at the organisational level (Casciaro & Piskorski, 2005). Third, it is useful in understanding organisational interdependence and its impacts on the decision-making process. Fourth, it has the ability to evaluate the role of stakeholders in the decision-making process (Boyd, 1990).

However, RDT has five main limitations which constrain its applicability as a theoretical framework for this thesis. First, it concentrates on micro level impacts of power on organisational behaviour. Second, as economic growth remains a macroeconomic concept, RDT does not seem to have a macro level framework that could incorporate phronēsis, power, context and perception in relating roads investments with economic growth. Davis and Cobb (2010) also consider that RDT is not able to theoretical explain the sources of power and dependence in organisational behaviour. Third, although, it could be used for JVs of road projects aimed at reducing uncertainty and interdependence (Harrigan & Newman, 1990), it does not adequately explain how to evaluate macro level economic growth impacts through roads construction. Fourth, RDT could also be used for roads construction firms' mergers and acquisitions (M&As) issues on the basis of power relations (Haleblian, Devers, McNamara, Carpenter, & Davison, 2009). However, such M&As do not provide a theoretical framework to evaluate the relation between roads investment and economic growth at local and national levels. Fifth, although RDT has been combined with other theoretical perspectives in contextual studies, its application in relating phronēsis with power, context and decision-making seems absent in literature. Because of these limitations, RDT was not chosen as a theoretical framework.

Power Dependence Theory (PODT) argues that mutual dependence brings people and organisations together, to the extent to which they are mutually dependent, and would like to exchange relations (Emerson, 1962). PODT argues that inequalities in dependence relationships generate power imbalances which could lead to social change and conflict (Molm, 1991). PODT is a replica of social exchange theory (SET) which aims to overcome difficulties generated by excessively rationalistic models of decision-making (Heckathorn, 1980, 1983). PODT focuses on power in organisational relationships in which complex power relations, pivotal in the decision-making process, may not be resolved through predictive modelling. PODT, thus, addresses difficulties in power relations and structures in a coherent way (Emerson, 1962). Emerson argued that lack of analysis of social power hinders

meaningful research on policies and organisations responsible to formulate these policies (ibid). He coins the notion of *ties of mutual dependence* between the parties which suggests, for example, A will depend on B if he wishes some goals which could be facilitated by B. This suggests that mutual dependency will enable each party to exercise some power over the other. Emerson (ibid), therefore, observed that power resides implicitly in the other's dependency.

Emerson's (ibid) notion of dependency relates power with the concepts of *demand* and *supply*. *Demand* refers to how much quantity of a product is required by the buyers. *Supply* refers how much a market can offer. Demand for a product creates power in the supplier. For example, doctors enjoy power because they supply scarce services for saving lives against high demand. On the supply side, power is placed in monopolies. For example, a factory in a remote village, which is the only employer in the area, will have monopolistic economic power over the residents who want to work there.

PODT may be useful for this research for two main reasons. First, it may analyse economic growth issues because of the dependence of developing countries on developed countries. For example, Prebisch (1949) applied the concept of dependency to argue that economic growth in developed countries often lead to huge economic problems in developing countries. Developing countries, therefore, experience poverty as they become dependent on developed countries. Second, PODT may bring forth poverty and gender issues in linking them with economic growth because of their mutual dependence. For example, Agarwal (1992) used PODT to argue that women's poverty in developing countries is on the rise because of inequality in employment and gender-based repression. PODT has, however, not been used as a theoretical framework because of two main reasons. First, PODT has the tendency to involve mathematical modelling of variables such as power and dependence. Second, PODT lays greater focus on mutual dependence rather than practical issues. This makes it a natural science predictive approach as opposed to

phronēsis focusing on a non-predictive approach based on values, practice and context. Therefore PODT is not chosen as a theoretical framework.

Advocacy Coalition Framework (ACF): ACF explains the interaction of actor-coalitions in the policy process. It is a policy process framework dealing with ‘wicked’ problems such as substantial technical disputes, important goal conflicts and multiple government-actors in the policymaking process (Sabatier, 1988). ACF is a result of criticism of five stages of policy process. These stages include: policy identification, policy selection, policy implementation, policy legitimation and policy evaluation (Lasswell, 1951). ACF raises four questions lying at the core of policy process research (Weible et al., 2011). First, how do people act, maintain and mobilise in advocacy coalitions? Second, to what extent do people learn particularly from opponents and allies? Third, what is the role of scientists and technicians in informing the policymaking process? Fourth, what factors influence major and minor policy changes? ACF, therefore, emphasises policy-oriented learning and belief systems (Smith, 2000).

It has been argued that states are increasingly depending on modern management techniques where control and efficiency is sought through the narrow confines of technology (Tribe, 1972; Wildavsky, 1966). In this regard, Jenkins-Smith and Sabatier (1994) argue that ACF can provide a long term perspective on policy change in complex inter-governmental relationships. There are several examples and applications of ACF in the policymaking process. These applications give rise to three main reasons why ACF may be useful for this research. First, belief systems, interests and values remain central in an ACF enquiry. For example, Bulkeley (2000) applies ACF in terms of beliefs, interests and arguments to analyse Australian climate change policy making it a different approach from other concepts such as pluralism. Second, ACF may be applied to a wide range of policy issues such as pollution policy and environmental policy. In this regard, Smith (2000) applies ACF in analysing the stability and policy change in UK’s industrial pollution policy. Three, ACF has the capacity to critically analyse new policies which are apparently very

attractive. For example, Wolsink (2003) uses ACF to challenge and analyse the Dutch government's proposed new institutional framework of spatial planning. Similarly Olsson (2009) applies ACF in successfully challenging new proposed road and housing plans with the result that the area was instead developed as a natural and environmental reserve. ACF was not selected as theoretical framework because it primarily places coalition formations at the core of analysis in which power revolves around the coalition actors. However, the literature review suggests that power is the main concern in linking roads investment with economic growth in developed and developing countries. Therefore, ACF was not used as a theoretical framework.

Path Dependence Theory (PADT) explains how the present policies become dependent on certain historical incidences and practices and resist change in the policy direction (David, 1994, 2001). David (1985) and Arthur (1988) argue that people rely on old products even when better options are available in the market. However, empirical evidence is needed to understand the effects of markets on economic behaviour in the long run (Low & Astle, 2009). PADT mainly relies on two analyses. One is the moment in history when policies were moved in a specific direction due to small events or actors' actions. The other refers to the forces stabilizing that policy direction and showing resistance for change.

PADT has been widely applied in economics and urban planning. Arthur (1994a) and Pierson (2000), for example, apply PADT to economic growth concepts such as increasing returns and diminishing returns to scale. Arthur (1994b) presents three path dependent mechanisms of industry location on which city patterns may depend. First, in the *pure necessity* stage, events influence urban location. Second, in the *pure chance* stage, any urban location patterns may arise. Third, in the *chance and necessity* model, geographical attractions interplay with chance events thus making history partially responsible for the outcome. Smith (1961) and Krugman (1991b) note that similar firms tend to agglomerate geographically which attracts workers and skills in a particular business area. North (1994) arguably follows

phronēsis in referring to the *theory of economic dynamics* which could be comparable in precision to general equilibrium theory. In the absence of such a theory, the analytical understanding of the way of economics evolving through time will remain missing, he argues (North, 1990, 1994). Vergne and Durand (2010), however, see confusion in literature which sometimes treats path dependence as a process and sometimes as an outcome. They argue that PADT is still not a theory because it is not able to causally relate identified historical variables in a systematic manner. Pierson (1996), Schwartz (2000) and Vergne and Durand (2010) attempt to formalise PADT in the political and social sciences. Mahoney (2000) argues that 'path dependence characterizes those specifically historical sequences in which contingent events set into motion institutional patterns or event chains that have deterministic properties' (ibid). This suggests that such patterns or event chains remain fixed, controlled and deterministic just as the natural science models. PADT compares and analyses the impacts of decisions taken under certain circumstances with the decisions taken in the past. The past circumstance may or may not be the same in the present day context (ibid). This makes context an important component of PADT.

PADT may be used in analysing power, phronēsis, context and transport decision-making for two reasons. First, it enables the research to examine historical transport policy-incidents of a minor and major nature linking roads investments with economic growth. Second, it may help to explain the contextual issues in transport decision-making. However, there are some theoretical shortcomings in PADT. Apart from a vague definition and confined understanding (Mahoney, 2000), the empirical and methodological guidelines of PADT have been in question for quite some time. Vergne and Durand (2010) specify some methodological reflections on PADT which need some time to get formalised. PADT may, therefore, provide an appropriate framework for an institutional analysis in a similar context.

Actor-network theory (ANT) explains how the growth and structure of knowledge may be interpreted and analysed through the interactions of networks and actors

(Callon, Law, & Rip, 1986). ANT originates from the social issues of science studies and treats objects as part of social networks (Latour, 1996). It is an effort to grasp social theory and ontology by the actor-networks (ibid). It is hard to define the conceptual core of ANT (Miettinen, 1999), however, it provides a theoretical means to deal with dual issues such as nature and society, action and structure, and local and global dualisms (Murdoch, 1998). Inspired by the work of Serres (1974), this theory has roots in French philosophy and semiotics (Miettinen, 1999). It is argued that several science objects, such as microbes, exhibit natural and social behaviours through networking (Latour, 1996). These behaviours need a discourse between their natural and social networking as actors of a process. A similar discourse exists between humans and the power they possess in decision-making. The said objects could be human, real and semiotic entities at the same time. Burt (1997) and Bourdieu (1985) argue that networks create social capital for individuals and communities. As networks permeate geographic thinking (Bosco, 2006), the approach of such thinking is not deterministic but flexible in the sense that networks may be local, may not have strategically positioned nodes and may not have compulsory paths (Latour, 1996). ANT focuses on the actor's size, psychological make-up and the motivations behind its actions (Callon, 1999). It could, therefore, be used for explaining the existence and working of economic markets (ibid). Podolny (1993) and Zuckerman (1999) also note that networks create status and difference in markets.

The common usage of the term 'network' itself has created three main misunderstandings about ANT in literature (Latour, 1996). The first misunderstanding is to treat an actor-network as a technical network such as a train, subway or telephone. This is, however, not the basic metaphor of ANT. The second misunderstanding is that ANT has very little to do with the study of social networks. However, Latour (ibid) argues that actually it does not limit itself to only humans but extends to non-human and non-individual entities as well. The third misunderstanding is that ANT starts from incommensurable, irreducible and unconnected localities which may then end into provisionally commensurable

connections. On the contrary, ANT is a reductionist and relativist theory which may not be treated as an aether in which networks should immerse themselves (ibid). Since 1970 the empirical study of networks has played a pivotal role in the social sciences by using various mathematical and statistical tools, Newman (2010) argues. ANT has, therefore, been applied diversely in the fields of natural and social sciences such as biological networks, social networks, logistical networks and the internet. ANT revolves around networks which define a pattern of relationship among entities in a social space. These networks could be: (i) individuals (for example, friends), (ii) formal (for example, contractual relations between organisations), (iii) informal (for example, inter-organisational relationship flow through people), and (iv) affiliations (for example, trade associations). The three key functions of networks are to act as: (i) resource and information channels called network pipes, (ii) status signalling and certification called network prisms, and (iii) social influence called network peeps.

ANT has not been chosen as a theoretical framework because of three reasons. First, its theoretical and methodological guidelines are not well-defined as it does not follow any particular power framework. Second, it has the tendency to be both deterministic and values-based flexible enterprise. Third, the main thrust of the theory is on network formations of actors rather than the planning context in which power is exercised (Rydin, 2010). Therefore, its applicability to the research questions is limited to network formations only in which power is treated as a non-human element rather than a contextual concept.

Phronetic Planning Research (PPR), according to Flyvbjerg (2004), is an approach to the study of social phenomena through contemporary interpretation of the Aristotelian concept of *phronēsis*, usually translated as practical wisdom, prudence or common sense. PPR argues that social science issues may not be solved on the lines of natural science issues because there is a marked difference between the two streams of knowledge (Flyvbjerg, 2001). Following Aristotelian division of knowledge into three virtues, Flyvbjerg (2004) defines *phronēsis* as a process that

concerns values and goes beyond the confines of scientific knowledge (episteme) and technology (techne). Flyvbjerg (ibid) argues that any planning practice attempting to reduce the planning research to only episteme or techne is misleading. He notes that out of three intellectual virtues, phronēsis is the most important as it creates a balance between instrumental rationality and value-rationality (for definitions, see section 3.2.1). Forester (1993) and Throgmorton (1996) note that planning research focuses mainly on practical judgement and could contain the element of phronēsis. Flyvbjerg (2004), however, argues that the main difference between such research and PPR is the concept and understanding of power. Therefore, planning traditions that do not place power at the core of their practice may not be most effective. Flyvbjerg, therefore, draws a line of departure between the previous research on phronēsis and PPR on the basis of understanding of power which, he argues, needs to be placed at the centre (ibid).

The theoretical-cum-methodological foundations of PPR are based on four simple questions (ibid):

- (i) Where are we going with planning?
- (ii) Who gains and who loses, by which mechanisms of power?
- (iii) Is this development desirable?
- (iv) What, if anything, should we do about it?

The second question is termed as ‘the power question’ by Flyvberg (2004). He acknowledges that no one has got enough wisdom to answer all four questions completely including planning researchers. These questions address the problems, possibilities and risks associated with contextual planning along side suggesting better and different solutions for them (ibid). With regard to methodology, Flyvbjerg (2001, 2004) argues that PPR is not method-driven, rather it is problem-driven. Therefore no single method may prove relevant in contextual issues (ibid). The primary objective of any method should be to answer the above four value rational questions, he argues. Such a method may be decided by the requirements of a particular research problem (Flyvbjerg, 2004). He presents nine methodological

guidelines which may be followed as per the requirements of contextual issues: (i) focusing on values, (ii) placing power at the core, (iii) getting close to reality, (iv) emphasizing little things, (v) looking at practice before conducting discourse, (vi) studying case studies and contexts, (vii) asking how and doing narrative, (viii) moving beyond agency and structure, and (ix) doing dialogue with multiple voices. These guidelines provide a general methodological approach and are, therefore, not to be followed strictly in all cases because it is placing of power at the centre that actually matters, he argues.

3.4. Choosing PPR framework

Bent Flyvbjerg's theoretical and methodological guidelines of *phronēsis* pave the way for the emergence of a new discipline called *phronetic social science* (PSS). PSS has been applied to a wide range of disciplines across social and natural sciences immediately after the publication of Flyvbjerg's (2001) 'Making Social Science Matter' (MSSM). This book drew the attention of a large number of researchers around the world in defining the intellectual boundaries of *phronēsis* and PSS. PSS has been widely appreciated and its credibility is well-proven. It is observed that, through PSS, Flyvbjerg intends to work toward the realization of a good society (Schatzki, 2002). Graaff (2004) believes the work of Flyvbjerg, Rorty and Gadamer on *phronēsis* provides 'a new basis for the social sciences'. Stewart (2003) observes that PSS provides a fresh perspective of epistemological and methodological issues of a theoretical framework in conducting a *phronetic enquiry*. Apart from this recognition, PPR has also been widely applied both in natural and social science disciplines.

For example, Halverson (2004) applies *phronēsis* in the education sector. He finds that successful school leaders use *phronetic artefacts* for establishing the conditions for improving student learning. A similar experience was carried out by Clegg (2006b) in organizational analysis. He finds that organisational analysis is best cultivated in a world of discursive plurality where alternative viewpoints are explicitly tolerated. Frank (2004) applies *phronēsis* in the health sector by drawing a

distinction between human sufferings as a natural and social phenomenon. He finds that experience is more important in the medical profession than rules and laws. Homann and Oranje (2006) bring this experience to the discipline of town planning. They focused on the human experience of the transformation process in the Tshwane city. They found that the absence of peoples' voices as a serious flaw in this process. Jentoft (2006) extends PSS to the fisheries resource management process which, he argues, 'must essentially be phronetic'. He finds that this process must be democratic and inclusive for effective fisheries governance. Zackariasson, et al. (2006) apply phronēsis to as diverse a field as video games development. They find that innovative and creative work needs to be incorporated in the development of these games. Life science and genetics were also not an exception to which Haines and Williams (2007) used phronēsis to explore the relationship between sociology and ethics in their applications for policy formulation. They find a fundamental divide between disciplines suggesting future collaborative work.

In addition, phronēsis has also been successfully applied to various issues concerning the urban decision-making process. For example, Hammersley (2007) applied phronēsis in public management to investigate transparency and accountability issues. He emphasised the role of better communication in achieving transparency. Voronov (2009) used phronēsis to study the grey area between critical management studies (CMS) and the actual practice. They found that CMS is capable of addressing the questions of power and values necessary for better management. Basu (2009) applied PSS to explore the complex layers of regulations to protect and maintain the interests of a rational state model. He found that contextual dimensionality of a geographic information system is useful to better understand structural barriers in conflicting spaces of education. Billsberry and Birnik (2010) apply phronēsis in bridging the interesting gap between the contrasting arguments suggesting 'management as a profession' and 'management as an art'. They find that management is a contextual practice requiring Aristotle's all three of intellectual virtues to be incorporated. Gunder (2010) extended the application of PSS to spatial planning issues and urban policy discourse. He finds

that phronēsis is useful in better understanding spatial planning and urban policy discourses.

The applications of phronēsis in such a wide range of fields make it the master virtue of the Aristotelian philosophy. The interpretation of phronēsis remains context-dependent, whose purpose is not to generate theory but praxis on the basis of case studies and contextual analyses. This thesis remains a continuation of these practices by generating praxis (section 3.2.1) based on contextual knowledge and values which when combined with episteme and techne establish real links between roads investment and economic growth.

The relation between roads investment with economic growth faces multifaceted challenges. There are several urban externalities which cannot be captured through economic evaluation tools (such as BCR) and require contextual understanding of the practical issues involved in roads planning. Each issue requires contextual understanding of various economic, social, environmental and spatial external factors in establishing the link between roads investment and economic growth. These challenges associated with such externalities are the real planning problem requiring the examination of individual cases and contexts of road projects. Using the PPR approach, such problems may be handled by adopting a three-step procedure: identification of dubious practices in advancing a policy, undermining such practices through problematization, and, development of new and better practices (Flyvbjerg et al., 2012, p. 6). The procedure suggests that there are no fixed solutions further suggesting that this thesis requires a problem-driven methodology which could suggest flexible context sensitive solutions and not the fixed figure work. This purpose is achieved through producing case based narratives called planning praxis. PPR is not aimed at producing a new theory but case-based contextual knowledge to address the planning issues concerning various economic, social, environmental and spatial externalities. These advantages make PPR a perfect case to be used as a theoretical framework for this research.

3.5. Conclusion

In view of the challenges faced by urban roads in enhancing the economic growth of cities, it is proposed to use the Aristotelian concept of *phronēsis* in determining how these challenges influence the relationship between the two notions. The underlying approach is to place practical issues in terms of the exercise of power at the centre in transport decision-making processes. The approach has the potential to produce case-based details as to how roads are advanced, what processes are followed and whether the outcome is desirable or not and, if not, what better practices can be introduced? The entire practice revolves around the interplay between the powerful and the powerless by following a social science approach in contrast to a natural science approach applied by the economic measurability tools. The purpose is not to produce right/wrong or true/false type fixed findings but to generate flexible contextual knowledge, in the contexts of developed and developing countries, based on the study of cases in line with the theoretical and methodological approach of PPR.

It is observed that power is an inseparable component of *phronēsis* and decision-making which is inherently conjoined with context and perception. It is also observed that context and perception are mutually conjoined. Therefore, evaluating social science issues, such as economic growth, on the fixed and predictive lines of natural science is misleading because contextual issues keep changing within varying power relations. It is also argued that power, context and perception need to be conjoined to understand the transport decision-making process with a view to understanding the real relation between roads investment and economic growth. Economic growth as a social phenomenon needs to be empowered in line with the challenges it faces in different contexts of different cases. The problem of perception is as applicable to the phenomenon of economic growth as it is to other social issues. Therefore perception of the term economic growth in the contexts of developed and developing countries needs attention. It is observed that the relation between roads investment and economic growth may be better understood

through PPR narratives and contextual praxis. Six theories have been discussed with a view to examining power and its connection with context in explaining the missing link of phronēsis. Based on the analysis of these theories, Bent Flyvbjerg's PPR has been critically discussed as a theoretical framework for this thesis. PPR is based on four value rational questions which inherently encompass practical and contextual issues of roads planning and decision-making. In the end, it is argued that phronēsis is Aristotle's master virtue which needs to be preferred over episteme and techne in contextually relating roads investments with economic growth in developed and developing countries.

CHAPTER FOUR

Research Design and Methods

The most important issue is not the individual methodology involved, even if methodological questions may have some significance. It is more important to get the result right, that is, arriving at a social science which effectively deals with public deliberation and praxis, rather than being stranded with a social science that vainly attempts to emulate natural science (Flyvbjerg, 2001, p. 129).

4.1. Introduction

Having outlined the research rationale and theoretical underpinnings in the previous chapters, this chapter discusses the methodological framework and data collection techniques for this thesis. As stated in Chapter 1, the primary research question is as follows:

How are arguments for economic growth advanced to promote new road projects?

The research consists of two qualitative case studies of road projects from New Zealand and Pakistan. This chapter outlines the broad methodological approach, the specific qualitative methods (document analysis and interviews), ethical considerations and related aspects of research design and methods. This chapter is divided into three main parts. The first part outlines the research design constituting the information needed to construct the thesis, the methods used and other aspects of data collection. The second part discusses philosophical considerations for the selection of research methodology. Part three summarises a research strategy for data collection alongside an appraisal of the research questions and research methods.

As discussed in Chapter 3, Flyvbjerg (2004) presents a basic set of methodological guidelines. However, he argues that these guidelines are cautionary indicators of direction for researchers who follow the elements of *phronēsis* in their work. These guidelines should not be treated as imperative as there are many ways of practicing PPR, he argues. Accordingly he terms PPR as a ‘problem-driven approach’ rather

than merely a 'method-driven approach' (ibid, p.291). Based on this argument, this chapter draws on the methodological guidelines of PPR in contextually understanding the relationship between building roads and achieving economic growth in the MacKays to Peka Peka (M2PP) expressway and Lahore Ring Road-Southern Loop (LRR-SL).

4.2. The methodological framework and implementation of fieldwork strategy

The overall methodological framework of the thesis is divided into seven parts as shown in Figure 5: research questions, theory, methodology, methods, data, analysis and conclusion. First, the primary and secondary research questions are outlined. Based on PPR's four questions (Flyvbjerg, 2004), the case study fieldwork encompasses four elements: planning policy, the planning process, planning pragmatism and the way forward. Document analysis and semi-structured interviews are used as qualitative research methods.

Two case studies have been selected: one from New Zealand and one from Pakistan (to be discussed later). The M2PP is sixteen kilometre long road section of the Wellington Northern Corridor (WNC) from MacKays Crossing to Peka Peka Road in the North Island of New Zealand. The LRR-SL is the 41 kilometre long proposed southern half of Lahore Ring Road project in Pakistan. The route maps and other details of the M2PP and the LRR-SL are given in Chapters 5 and 7 respectively.

In line with the requirements of Flyvbjerg's (2004) four questions, a four-stage methodological framework has been suggested consisting of: (i) phronetic planning policy, (ii) phronetic planning process, (iii) phronetic planning pragmatism, and, (iv) phronetic planning way-forward. As shown in Figure 5, the prefix 'phronetic planning' indicates that the conceptual framework follows Phronetic Planning Research approach. At the third stage, the methodology has been illustrated by developing a comparative case study of the M2PP and the LRR-SL projects. The methodology follows the fourth level where methods employed in the thesis are

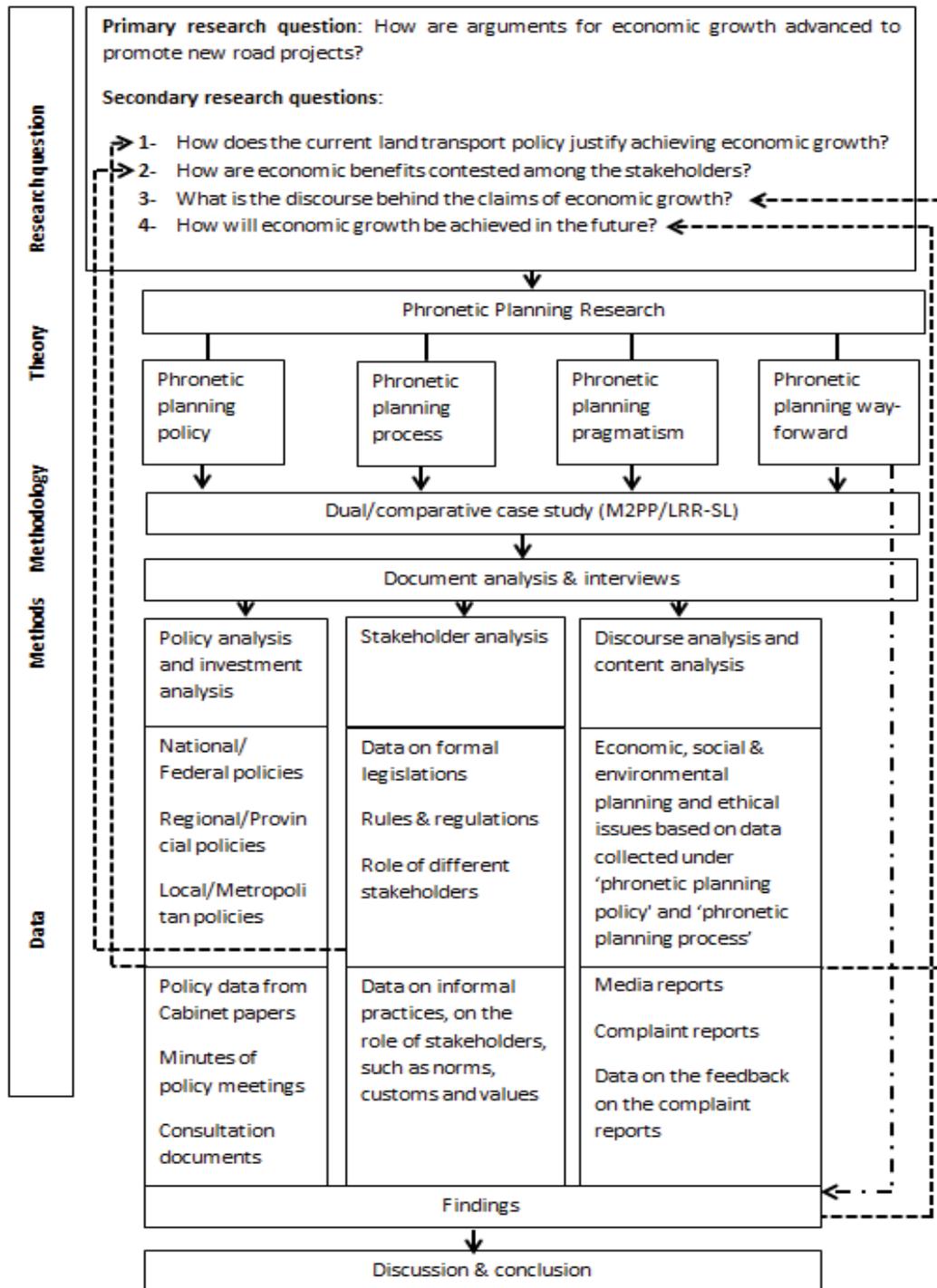


Figure 5: The methodological framework of the thesis (the author).

shown. As previously mentioned, document analysis and semi-structured interviews have been used as the research methods in this thesis. The fifth part shows the

nature and type of data used to feed the earlier mentioned four-stage conceptual framework. It shows that the phronetic planning policy component examines data on policy and investment analyses of the M2PP and the LRR-SL. This data is divided into national/federal, regional/provincial, and, local/metropolitan levels. These levels further rely on data from several sources such as cabinet papers, minutes of policy meetings and consultation documents. The second component, phronetic planning process, deals with stakeholder analyses in the two cases. In this regard, the data is retrieved from formal legislations, rules and regulations, and, the role of different stakeholders ascertained from semi-structured interviews. This dimension is further explored by incorporating data on informal practices on the role of stakeholders such as norms, customs and values. The third component, phronetic planning pragmatism, determines the dubious planning practices by questioning the claims of economic growth through discourse and content analyses. The data in this part is fed by the economic, social, environmental and ethical issues under the earlier mentioned two components. In addition, this dimension is further fed by data from media reports, complaint reports and the feedback on such reports. These three components collectively lead to findings of the thesis which then culminates at the discussion part followed by conclusion. The fourth component is phronetic planning way-forward which aims to provide better practices to be followed in transport planning by curbing the dubious practices investigated under the third component. It is shown by thick dotted line directly joining the findings stage. Four other dotted lines, connected with the secondary research questions, have also been shown indicating how the four secondary research questions are fed by their corresponding data.

From Chapter 2, it may be noted that quantitatively fixed approaches, such as BCR, constitute the main criteria behind justifying roads investment. This suggests that such approaches mark one of the *taken-for-granted truths* (Flyvbjerg, 2004, p. 284) in the contexts of roads investment in the two countries. The research questions of the thesis require that the assumptions of linking the M2PP and the LRR-SL investments with economic growth be critically analysed rather than being taken-

for-granted. This suggests that the link between roads investment and economic growth in New Zealand and Pakistan may be hypothesised to be a rational and progressive promise of planning that may lack an understanding of contextual challenges due to which it is hard to achieve economic growth from these projects.

4.3. Qualitative case study research

Creswell (1998) views qualitative research as an intricate fabric consisting of many colours, various textures, minute threads and different blends of material. This is what the above phronetic objective aims to achieve by examining roads investment and economic growth. According to Creswell (*ibid*, pp. 13-15):

Qualitative research is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting.

Similarly Moriarty (2011, p. 3) argues:

... qualitative methods 'reach the parts that other [quantitative] methods can't reach' (Green & Thorogood, 2004) particularly in research looking at links between processes and outcomes (Shaw, 2003).

Moriarty (2011) presents five approaches to qualitative inquiry: grounded theory, case studies, conversation analysis, ethnography, and life history and narrative approaches. In practice these approaches can be combined together (*ibid*). PPR aims to generate narratives through studying cases and contexts (Flyvbjerg, 2004, 2006). It is observed that contextual knowledge acquired through the study of cases and contexts can be effectively generalised for other cases and contexts, which usually takes the form of propositions (Flyvbjerg, 2006, 2011; Spicker, 2011).

Some authors note that narratives, case studies, interviewing, discourse and grounded theory are inseparably interwoven with each other (Flyvbjerg, 2004, 2006; Fontes & O'Mahony, 2008; Fraser, 2004; Glaser, 1992; Hammersley, 2003). This suggests using qualitative techniques when applying phronēsis (Flyvbjerg, 2004). Creswell's (1998, p. 27) underscores the importance of case study research as:

I believe that the best studies have a strong inquiry procedure, and this approach can be gained through engaging in field studies, by apprenticing with individuals with a strong tradition of inquiry focus, or by reading good examples.

Generally, 'knowledge about strategies for efficient and defensible procedures for analyzing qualitative data is less common' (Thomas, 2006). However, good examples can strengthen the qualitative inquiry processes (Flyvbjerg, 2006). There is a wide range of literature documenting the processes associated with qualitative data collection and analysis (see, for example, Quinn (2002, pp. 452-458)). However, Phronetic planning researchers are not required to strictly follow these processes because PPR is a 'problem-driven approach' and not a 'method-driven approach' (Flyvbjerg, 2004, p. 291). Despite this recommendation, methods and processes have significance in qualitative inquiries involving case studies (ibid). The methodological framework, as shown in Figure 5, is based on four thematic areas making PPR predominantly an inductive approach¹⁴. Furthermore, a qualitative case study research is typically inductive particularly in developing themes for content analysis (Quinn, 2002, p. 453). The same approach applies to the discourse analysis as well where themes are developed based on the analysis of discursive contents. Based on the inductive approach, the final findings or propositions are usually deductive in nature. This suggests that once themes are established, the final confirmatory stage is usually deductive in affirming the authenticity and appropriateness of the inductive content (ibid, p. 454), making a PPR inquiry a combination of both inductive and deductive approaches.

Both the M2PP and the LRR-SL are distinct cases in two different contexts making it a cross-case analysis for comparing their respective policy approaches, planning processes and their discourses in support of the arguments for economic growth. The thesis primarily investigates how the arguments for economic growth are advanced to promote new road projects in two different countries. The primary objective of the M2PP and the LRR-SL cases is, therefore, bi-directional: first, the topic is well explored, and second, the essence of the phenomenon is revealed

¹⁴ Inductive approach is based on patterns, themes and categories in data while a deductive approach follows an existing framework in collecting and analyzing data (Quinn, 2002, p. 453).

(Stake, 1995; Yin, 2009). Following this approach, the purpose is to answer *how* and *why* questions (Yin, 2009) in the M2PP and the LRR-SL policy and planning processes by focusing on three main dimensions: investigating the behaviour of stakeholders, context-dependent relevance of the phenomenon of economic growth, and, demarcation between the actual context and prevailing planning practices in the two cases.

These three dimensions are adapted from Yin's (2009) four principles in considering case study research for the M2PP and the LRR-SL. One of Flyvbjerg's (2004) methodological guidelines also suggests developing cases and contexts as he views rationality and power as context-dependent and constructed concepts. This suggests that the next step is to explore what type of case study is best suited for two different countries and contexts where the same theoretical and methodological framework is to be applied with a view to exploring a common phenomenon [economic growth] (Mitchell, 1983). Stake (1995) classifies case studies into three types: intrinsic case study, instrumental case study, and collective case study. The term 'type' (of case studies) is referred to as the *context of the case* by Creswell (1998) who classifies them in the same categories as Stake (1995). Yin (2009), however, discusses the case study types in more detail. He first presents three main types of case studies (explanatory, exploratory, and descriptive) and, then, draws a distinction among single, holistic, and multiple case studies. The selection of a particular type of case study depends on the overall objective of the research design and the study purpose (Yin, 2009). There are different objectives of a case study which demarcate their classification as well: some aim at describing a case, some case studies explore a case, and others compare a case (Baxter & Jack, 2008). The PPR approach explores all three dimensions in the M2PP and the LRR-SL cases with greater focus on comparative aspects of the dual case study involving the M2PP and the LRR-SL cases. This thesis aims to examine those phronetic aspects which may accelerate or hinder economic growth by building roads in multiple contexts of New Zealand and Pakistan. This suggests that the research involves

multiple issues and multiple bounded systems defining a definitive boundary of the case in terms of rationality-power issues with regard to roads decision-making.

4.4. The M2PP and the LRR-SL as comparative case studies for developed and developing countries

Multiple case studies have many advantages such as producing cross-case analysis and drawing similarities and dissimilarities (Yin, 2004, pp. 55-85). Creswell (1998) and Simons (1996) argue that multiple case studies have some drawbacks as well. Creswell (ibid), for example, notes that the inclusion of more than one case can dilute the in-depth inquiry of the case. Therefore, he recommends that a researcher should not choose more than four cases. With this recommendation in mind, Banister and Berechman (2001) provide the basis for the selection of case studies for this thesis. They predominantly rely on traditional economic tools in their analysis of the relationship between transport investment and economic growth in developed countries only. This suggests understanding the difference between developed and developing countries road cases when similar investments are made. This approach provides enough room to develop multiple case studies that could relate roads investment with economic growth because of three reasons. First, it is very important to understand the varying macro and micro level impacts of roads investment on economic growth in the changing contexts of developed and developing countries. Second, it is imperative to examine varying impacts of road investments on economic growth at national, regional and local levels in developed and developing countries. Third, it is pertinent to juxtapose the limitations of the decision-making process in which roads investments are justified on the basis of achieving fixed economic growth rates.

Comparative urban studies are in high demand because of globalisation, drawing more attention to the cities' comparative behaviour across developed and developing world (Robinson, 2011). However, a greater influence of natural science on urban planning (Flyvbjerg, 2001, pp. 25-37) has made the scholars reluctant to

pursue comparative urban planning studies of cities (Pierre, 2005). There are longstanding methodological assumptions in urban planning, particularly those inherited assumptions ‘about causality and what constitutes a unit of analysis’, that restrict comparison of cities and projects across different countries (Robinson, 2011). These inherited assumptions do not appreciate a single case study as a representative of a whole class of cases or countries, but it is a misunderstanding about case study research (Flyvbjerg, 2006). For example, the assumption that “all swans are white” can be falsified with just a single case of black swan making a big generalisation that “all swans are not white” (Popper, 2004, p. 378). It is actually comparison that distinguishes between a “white swan” and a “black swan”. Similarly, Galileo’s rejection of Aristotle’s law of gravity was not a result of a wide ranging observations but a single case (Flyvbjerg, 2006). It is, therefore, incorrect to assume that ‘one cannot generalise from a single case’ (ibid).

There are several reasons behind the selection of New Zealand and Pakistan as a comparative case study for developed and developing countries in line with Banister and Berechman’s (2001) approach. Their focus was on enhancing economic growth in developed countries only where there is already well-connected roads infrastructure (ibid). This approach naturally raises a question, what about developing countries where there may be a lack of roads infrastructure [see, for example, North (1955)]. Can economic growth be enhanced in such countries? This question is supported by Krugman’s (1996) observation that the travel costs of individuals and freight face different challenges in developed and developing countries. These arguments suggested developing a case for developed and developing countries involving comparative analyses so that such issues could be analysed that make the economic growth argument one of ‘the principled unresolved challenge to transport researchers’ (Banister & Berechman, 2001, p. 209).

Out of many developed and developing countries, the selection of New Zealand and Pakistan was also based on some considerations. The initiation of Roads of National

Significance in 2009, on the justification of achieving economic growth (Ministry of Transport, 2009b), was marred by controversies and uproar making it a hot issue in New Zealand (Dominion Post, 2010a, 2010b, 2010c; Ministry of Transport, 2011b; NZTA, 2009a). Based on similar economic growth arguments, Lahore Ring Road also witnessed unprecedented acceleration in 2009 and 2010 (Daily Times, 2008, 2010a, 2010c; NESPAK, 2009c) after decades of procrastination, but it also faced the anger and resentment of the stakeholders (Daily Times, 2010b; Dawn, 2011a; Pakistan Today, 2011). The two cases have the potential to be analysed as comparative-cases in which similar justifications were advanced by expanding roads infrastructure. As well-chosen case studies can bring a novice or beginner at expert level because of his informal learning about the cases (Flyvbjerg, 2001, pp. 11-20), New Zealand and Pakistan cases were preferred over other developed and developing countries' cases. It was because that the author is a citizen of Pakistan having informal learning about language, culture, political institutions and public policy of the country. He undertook his doctoral research in New Zealand where the government has pursued an agenda that explicitly links roads investment with economic growth (Ministry of Infrastructure, 2011; Ministry of Transport, 2009b). These dimensions support selecting New Zealand and Pakistan as case studies.

Another consideration was that the comparative study involves only two cases as against four suggested by Creswell (1998). With only two cases, this reduces the chances of dilution of an in-depth case inquiry. According to the 2011 Human Development Index (HDI) report, New Zealand and Pakistan are ranked as 5th and 145th countries in the world respectively (UNDP, 2011, p. 126). As HDI is calculated on the basis of various economic, social, environmental and spatial dimensions (ibid, p. 125), New Zealand and Pakistan are treated as developed and developing countries respectively for this thesis.

The bounded systems (or cases) of this thesis are defined in two steps. First, the selection of countries has been done. Second, one road project has been selected from each country. This makes it a comparative case study. The fieldwork was,

therefore, carried out in two stages. In the first stage, interviews were conducted and the documents analysed for the M2PP. In the second stage, fieldwork was carried out for the LRR-SL. Similar interviews were conducted and documents analysed. This approach provides in-case and cross-case data analyses for the M2PP and the LRR-SL. A four-step selection criteria was followed in the selection of the M2PP and the LRR-SL: (i) both cases aim to achieve economic growth, (ii) both cases are of strategic importance for the governments of New Zealand and Pakistan, (iii) both cases witnessed resistance by the local community, and (iv) both cases are part of a national vision.

The M2PP, a sixteen kilometres section of the WNC Road of National Significance (RONS) is selected as a case study for New Zealand. The scrutiny of the M2PP as a case study for New Zealand was done in three steps. In step one, a detailed analysis of the New Zealand Transport Agency (NZTA)-derived BCR and the SAHA-derived BCR was done. SAHA was engaged by the NZTA to determine economic assessment of the RONS (SAHA, 2009, 2010b). Therefore, the BCR determined by the NZTA and SAHA were separately analysed. In step two, three RONS were identified where the SAHA-derived BCR was less than one: Puhoi to Wellsford (0.4), Waikato Expressway (0.5) and WNC (0.6). In step three, the WNC was selected because of its geographical proximity with Palmerston North where the author is based (see Chapters 5 and 6 for further details).

In selecting the LRR-SL, a similar approach was followed but in a different context. First, two road projects were identified from Lahore: Lahore Canal Road and Lahore Ring Road (LRR). Second, two main sections of the LRR were analysed: Lahore Ring Road-Northern Loop (LRR-NL) and Lahore Ring Road-Southern Loop (LRR-SL). Third, as the LRR-NL was near completion, the LRR-SL was selected because it is yet to be completed. The purpose of this approach was to learn the practices employed in the LRR-NL to ascertain whether some lessons were learnt to be later employed in the LRR-SL. Achieving economic prosperity has been the main objective behind the LRR construction. The LRR-SL is a forty one kilometre long section of the LRR. The

LRR Package-15 was announced on Dec 25, 2011 (Dawn, 2011c). Some dubious practices were observed in advancing the LRR. First, the interchange was named after the elder brother of the Chief Minister Punjab, Mr Nawaz Sharif. Second, the project was inaugurated on Dec 25, the birthday of Nawaz Sharif, suggesting an investigation into the rationality for selecting this date. Third, elections in Pakistan were due in the beginning of 2013. Fourth, the emergence of Pakistan Movement for Justice Party (PTI) created several changes in the power relations not only in Pakistan as a whole but also in roads decision-making in Lahore. The design of the LRR was also changed at least four times in the past (Khan, 2008). These circumstances make the LRR-SL a good case for analysing contextual challenges and their impacts on the claims of achieving economic growth. Limited research funds and the security situation in other parts of the country are also some factors in finalising the LRR-SL as a case study for Pakistan. Other logistic considerations underpinning the selection of the included fieldwork are accessibility to data and better handling of the interviews transcripts.

4.5. Research integrity

Ethical considerations are central to any research project (Guillemin & Gillam, 2004). The notion of *phronēsis*, in itself, refers to ethical values (Flyvbjerg, 2004) which then contribute to reflexive analysis and discussion about norms and interests (Flyvbjerg, 2001, p. 3). An inseparable relation among ethics, *phronēsis* and research integrity is well established (Aristotle, c.350 BCE; Flyvbjerg, 2013; Guillemin & Gillam, 2004; Haimes & Williams, 2007; Rämö, 2011). Integrity in research is inextricably linked with the reflexivity (Alvesson & Sköldberg, 2009) in a *phronetic* inquiry. This suggests that, within the context of integrity and ethics, one objective of PPR is to deliberate on those values, interests, power and norms which the explanatory and predictive theory may not take into account.

4.5.1. Ethical considerations

A detailed analysis of ethical issues was undertaken for this thesis because it involves human participants. The Massey University Code of Ethical Conduct provides a guide for identifying key ethical issues such as voluntary participation, informed consent, and freedom from harm (Massey University, 2011a). The Screening Questionnaire (Massey University, 2011b) was completed and the responses indicated that the research was low risk. The project information sheet, participant consent form along with draft Low Risk Notification (LRN) application was peer reviewed by a senior staff member of the university (see Appendix Two for the project information sheet and the LRN approval).

Research participants, especially those holding public offices, were informed that their identity might not be kept confidential. It is partly because of the PPR approach aimed at generating contextually rich details of the cases in which the stakeholders' role is inclusive and vibrant rather than just an anonymous interviewee. In most cases, their consent was sought before conducting interviews and data collection. In some cases, however, the research participants did not give the written consent but agreed to be interviewed. Informed consent was obtained from all participants. Some participants were very sensitive about confidentiality and they appeared to give measured replies. Therefore, the statements of the research participants were recorded carefully in line with the Massey University Code of Ethical Conduct so that their interests are not harmed. The interview transcripts were sent to them for their approval with a view to achieving their verification before being used for analysis.

In case of Pakistan, where there is tighter bureaucratic control over the lower staff, the statements of the research participants were also recorded carefully so that their interests are not harmed. In some cases, these statements were read out to them and objectionable contents were deleted. In some cases, where the research participants had reservations on recording their voices, only hand written notes were taken which were later transcribed. As the LRR decision-making involved many

political and military governments, it was ensured that no research participant is harmed because of his views in favour or opposition of a particular political party. To ensure confidentiality, for those participants who wanted their names to be kept confidential, pseudonyms were used.

4.6. Case study methods

Several different methods may be used in a case study research (Yin, 1994b, 2004, 2009). Document analysis and semi-structured interviews are used as the data sources in this study. Various documents were used for reviewing transport policy, stakeholder analysis, discourse analysis and content analyses. In this regard, the methodological framework explaining the link between document analysis and its relationship with primary and secondary research questions is shown in Figure 5. Chapters 5, 6 and 7, 8 present the data and analysis for each case study.

4.6.1. Document analysis

Document analysis is a systematic procedure for evaluating or reviewing printed and electronic documents (Bowen, 2009). It requires that the data be analysed and interpreted for increased understanding of the elicited meanings and develop empirical knowledge (Bowen, 2009; Corbin & Strauss, 2008; Rapley, 2007). Document analysis is usually combined with other qualitative research methods as a means of triangulation – the combination of methodologies that study the same phenomenon (Denzin, 1970, p. 291). As a qualitative researcher draws upon multiple (at least two) evidence sources (Bowen, 2009), such sources, apart from documents, include participant or non-participant observation, interviews and physical artefacts (Yin, 1994a). Accordingly, this thesis combines document analysis with semi-structured interviews. The documents are classified into different levels in line with the methodological conceptual framework as shown earlier in Figure 5. The documents were drawn from different websites, media and government and non-government agencies. The documents were analysed to carry out policy and investment analyses, stakeholder analysis, and discourse and content analyses.

The main strategy behind carrying out the discourse and content analyses was to be in theoretical consonance with the third theme of *phronēsis*, as discussed in Chapter 3. In this regard, media coverage of the two projects was helpful in identifying the storylines and sub-storylines in connecting roads investment with economic growth. As mentioned in Section 2.4.3, the storylines and sub-storylines helped in discursively analyzing the pragmatism behind advancing national visions and ideologies for which media reports analysis needed attention. Four other strategies were considered and taken into consideration in respect to analyzing media coverage of the projects: (1) gaining advanced knowledge and insights into the storylines through everyday media response, (2) analyzing the language used, (3) covering the individual and personal responses of stakeholders, and, (4) discursively understanding the hidden meanings of the apparent headings. The purpose of following these strategies was to understand the ways and means by which dubious national visions and ideologies are floated. Media coverage of the projects also helps in understanding the working and re-working of the hidden practices involving power and politics in the roads decision-making process. The process is, therefore, characterized by a marked difference between the language used and the practical action taken in advancing roads infrastructure. Some documents in New Zealand, such as SAHA (2009), were obtained from local organisations. Some specific documents in Pakistan (LRRRA, 2011, 2012a, 2012b, 2012c, 2012d, 2012e, 2012f, 2012g, 2012h, 2012i, 2013) were collected during an internship¹⁵ with Lahore Ring Road Authority (LRRRA) from December 2012 to January 2013. Some other specific legal rules and regulations, such as annexures to Government of the Punjab (2011a), were obtained after receiving necessary government permission during the field trip to Pakistan in 2012-13.

¹⁵ The Chairman LRRRA granted the permission for internship vide LRRRA's letter number LRRRA/(Est./Internee)/Admin-06/22436 dated January 12, 2013.

4.6.2. Semi-structured interviews

A 'polyphony of voices' is one of the nine methodological guidelines of PPR (Flyvbjerg, 2004). It refers to multiple voices rather than one single voice with the purpose of in-depth study of social dialogue and praxis in society (Flyvbjerg, 2001, 2004). In this regard, language plays a pivotal role. Without language, neither any account of experiences nor any sense of a world can be made (Schostak, 2006, p. 26). Qualitative interviewing is a way of focusing on language through active live involvement with research participants. There are several forms of qualitative interviews (Rubin & Rubin, 2012; Schostak, 2006). However, three main types are well known in qualitative research: structured, semi-structured and unstructured. As semi-structured interviews have the flexibility to be combined with structure (Legard, Keegan, & Ward, 2003) and a methodological framework, this interview type was used. Such flexibility enables better data collection for values, interests, power and norms as per the methodological framework of this thesis. The data was analysed at three levels in both New Zealand and Pakistan: national/federal, regional/provincial and local/metropolitan.

In line with the above mentioned methodological guideline of a 'polyphony of voices', Wilcox's (1994, p. 16) four phases of initiation, preparation, participation and continuation were used as a strategy in the identification and selection of respondents. This was done through an extensive document analysis evaluating the roles of different stakeholders at the project initiation, preparation, participation and continuation stages. Before selecting the respondents, two main considerations were given attention: (1) Are there other ways to answer the research questions? And, (2) what are the limitations posed by the interviews? In this regard, a strategy of combining the data from the documents and interviews was followed so that the limitations posed by the absence of key stakeholders could be handled. For example, the New Zealand Minister of Transport refused to be interviewed despite repeated requests. However, the limitation posed by his absence, as a key stakeholder, was overcome by extracting his point of view from different

documents and media reports. Similarly, the number of interviews in the M2PP case study was less than that of the LRR-SL. It was because the New Zealand transport policy documents were much more detailed and exhaustive as compared with the transport policy documents of Pakistan. This limitation was also overcome by following the same strategy of combining the data both through document analysis and interviews. Therefore, quality of in-depth interviews data was given priority rather than just quantity. Adding more interviews in the M2PP, for example, could just have repeated the same data as was obtained through document analysis and other interviews. In line with the methodological framework, shown in Figure 5, the respondents were identified in a way to further enrich the data obtained from the document analysis rather than producing repeated information. Accordingly, some respondents were selected because of their strategic roles at the initiation stage of the project. These respondents had greater strategic interests in the projects with the power to define the direction of policymaking. Some respondents had major roles at the preparation and participation stages of the case studies. These stakeholders had the power to influence both the policymaking and policy implementation stages of the two projects. Another group of respondents were selected because they had lesser power at the participation and continuation stages but were still influential in the projects implementation.

The 2010 MacKays Crossing to Peka Peka community engagement report (NZTA, 2010a, pp. 20-31) was used to classify the M2PP stakeholders as shown in Table 2. Based on this report, some other stakeholders such as Ministry of Transport and Ministry of the Environment were also added. Accordingly, three interview groups called Group 1, Group 2, and Group 3 were constituted for better data handling in line with their powers and interests at different *stages of the project* (see section 2.4.2). Based on this classification, the views of the M2PP stakeholders were gathered through document analysis and semi-structured interviews. Many of the stakeholders' views were available in various documents. Furthermore, those residents were preferred for interviews that represented a larger community from the platform of local organisations. Therefore, the number of interviews in the

M2PP is less than that of the LRR. However, in case of the LRR, the stakeholders' views are almost absent in the documents. Therefore, more interviews were conducted alongside consulting the media reports.

Table 2: Interview groups in the M2PP

Group	Stakeholders	Classification criteria
Group 1	Ministry of Transport, political parties' elected members	Major stakeholders at the initiation stage of the project with major interests regarding the benefits and risks of the M2PP.
Group 2	NZTA, city councils elected members, experts, business community, affected property owners	Middle level stakeholders with the power to influence either the policymaking or policy implementation at the preparation, participation and continuation stages of the M2PP.
Group 3	Ministry for the Environment, media, Maori, Police, local parliamentarians	Another group of voices, which is although influential, but has lesser operational power at the preparation, participation and continuation stages of the M2PP with varying interests regarding the benefits and risks of the project.

Source: the author

Data on these groups was collected through document analysis and semi-structured interviews. In the M2PP, the views of the affected residents, the experts and the politicians were gathered which constitute ten interviews as shown in Table 4. A similar classification of stakeholders was also made for the LRR-SL as shown in Table 3. In this case, similar views of the affected residents, the experts and the politicians

Table 3: Interview groups in the LRR-SL

Group	Stakeholders	Classification criteria
Group 1	Punjab government, military owned enterprises, political parties' elected members	Major stakeholders at the initiation stage of the project with major interests regarding the benefits and risks of the LRR.
Group 2	LRRA, experts, federal government, business community, affected property owners,	Middle level stakeholders with the power to influence either the policymaking or policy implementation at the preparation, participation and continuation stages of

	Communications and Works department	the LRR.
Group 3	Punjab Environment Protection Department, Lahore Development Authority, media, Police, local parliamentarians, Ministry of Environment	Another group of voices, which is although influential, but has lesser operational power at the preparation, participation and continuation stages of the LRR with varying interests regarding the benefits and risks of the project.

Source: the author

were gathered by conducting twenty four interviews. Accordingly, the interviewees' representation at national/federal, regional/provincial and local/metropolitan levels was ensured. Lists of interviewees are given in Tables 4 and 5. These lists provide the details of interviewees along with other necessary details. Flyvbjerg (ibid)

Table 4: Research participants interviewed for the M2PP project.

M2PP			
Interview date	Interviewee	Organization/Capacity	Position held
September 2012	Jim Bentley (Expert 1)	M2PP Alliance	M2PP Alliance Project Manager and Director Centre for Infrastructure Research, University of Auckland
August 2012	Stephen Selwood (Expert 2)	NZ Council for Infrastructure Development (NZCID)	Chief Executive Officer (CEO)
September 2012	Jane Davis (Expert 3)	Greater Wellington Regional Council (GWRC)	General Manager (GM) (Strategy and Community Engagement Group), GWRC
October 2012	Arthur Grimes (Expert 4)	Motu Economic and Public Policy research	Senior Fellow
July 2012	Jonathan Gradwell (Resident 1)	Save Kapiti, Kapiti resident	Founding member Save Kapiti and local resident
July 2012	Michael Pickford (Resident 2)	Local resident, Save Kapiti	Chief Economist, member Save Kapiti and local resident
September 2012	Ken Shirley (Resident 3)	NZ Road Transport Forum (NZRTF)	CEO, NZRTF and local resident
August 2012	Phil Twyford (Politician 1)	Labour Party	Member of Parliament (MP) and Transport Spokesperson
August 2012	Julie-Anne Genter (Politician 2)	Green Party	MP and Transport Spokesperson
October 2012	David Banjaman	Takamore Trust	Representative Takamore Trust

Source: the author

Table 5: Research participants interviewed for the LRR-SL project

LRR-SL			
Date of interview	Interviewee	Organization	Miscellaneous
December 2012	Amer Aziz (Expert 1)	City and Regional Planning department (CRP), University of Engineering and Technology (UET), Lahore	Assistant Professor (AP)
December 2012	Shakir Mahmood (Expert 2)	CRP, UET, Lahore	AP
December 2012	Nadeem-ul-Haque (Expert 3)	Planning Commission, Islamabad	Deputy Chairman
December 2012	Fayyaz Ahmed Buzdar (Expert 4)	Lahore Ring Road Authority (LRRRA), Lahore	Deputy Director (DD) (contracts)
December 2012	Najam Waheed (Expert 5)	LRRRA, Lahore	DD (engineering)
January 2013	Javed Ilyas (Expert 6)	LRRRA, Lahore	Chief Engineer (CE)
January 2013	Ilyas Shah (Expert 7)	LRRRA, Lahore	DD (Planning and Development)
January 2013	Khalid Javed (Expert 8)	Planning and Development (P&D) Board, Lahore	CE (Roads & Bridges)
January 2013	Ansar Javed (Expert 9)	Communications and Works (C&W) department, Government of the Punjab	Deputy Secretary
January 2013	Kazi Riaz (Expert 10)	National Engineering Service of Pakistan (NESPAK), Lahore	Project Manager, Lahore Ring Road
January 2013	Abdul Qayyum (Expert 11)	LRRRA, Lahore	DD
January 2013	Abdul Waheed (Expert 12)	LRRRA, Lahore	Director
January 2013	Mahmud Ahmad Malik (Expert 13)	NESPAK, Lahore	GM (Highways Division)
February 2013	Imran Yaqub (Expert 14)	Punjab Police, Lahore	Senior Superintendent of Police (Administration)
February 2013	Shahid Cheema (Expert 15)	Economic Affairs Division, Islamabad	Chief (Research and Statistics)
February 2013	Shahid Iqbal (Expert 16)	National Transport Research Centre, Islamabad	Acting Chairman
February 2013	Munir Anjum (Expert 17)	PC, Islamabad	Member (Infrastructure)
February 2013	Pervez Iqbal (Expert 18)	National Highways Authority, Islamabad	GM (planning)
February 2013	Naila Almas (Expert 19)	International Cooperation Agency, Islamabad	Senior Program Officer
February 2013	Waseem Mukhtar (Expert 20)	Punjab Transport Department	Secretary
December 2012	Ghulam Nabi (Resident 1)	Harbanspura area of Lahore	Affected resident
December 2012	Abdul Bari (Resident 2)	Bhatta Chowk area of Lahore	Affected resident
January 2013	Ejaz Chaudary (Politician 1)	Pakistan Movement for Justice party (PTI)	President PTI Punjab

January 2013	Chaudary Zaheeruddin (Politician 2)	Pakistan Muslim League (Quaid-e-Azam) [PML (Q)]	Former C&W Minister/Opposition Leader Punjab Assembly
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Source: the author

demonstrates how document analysis and semi-structured interviews methods may be employed methodologically. Acknowledging the argument that nobody has got enough wisdom to answer all aspects of PPR (Flyvbjerg, 2004), an effort was made to maximise the utility of the data by thematically transforming the research questions into interview themes in line with Flyvbjerg (1998b).

Wright and Barnard (1975) suggest two main problems of completing self-administered questionnaires: problem with the language and the way in which the information is arranged spatially. These two problems suggests that a questionnaire may either be verbal or non-verbal (Jenkins & Dillman, 1995). Schwarz, et al. (1991) present the differences between the two approaches. The interview questionnaires were structured in line with the PPR methodology for gathering opinions, beliefs and judgments [see, for example, Gillham’s (2000, p. 26)]. The purpose of this approach was to generate discussions about a phenomenon or process.

Four interview themes were framed. Under each theme two interview questions were structured. This approach thematically connects semi-structured interviews with four secondary research questions and produces well-structured data. The interview schedules were kept simple and discussion-oriented by focusing on contextual issues concerning roads investment with economic growth. However the interview themes were the same for both the case studies. The interview questions for both the M2PP and the LRR-SL are given in Appendix Three.

4.7. Handling the sources of qualitative data

As qualitative research design involves different threads and blends of data to ensure more detail and richness from a case study (Creswell, 1998), therefore, a single source of information is usually not sufficient. Both the M2PP and the LRR were thoroughly studied before formally shaping the thesis. In case of the M2PP,

there was an easy access to most of the policy and planning documents which were available online. Accordingly, the thesis was shaped in a way that the data gathered through the document analysis and semi-structured interviews complements each other in answering the research questions as per the methodological framework shown in Figure 5. The sources of data were, therefore, segregated in line with the themes of Figure 5 before proceeding to the fieldwork. Different questions were fed with raw data and the gaps were identified which were then filled by semi-structured interviews conducted through interview themes and questionnaires (Appendix Three). The nature and type of the sources of data were also helpful in deciding the number of chapters for each case study. For example, the M2PP policy data sources were quite exhaustive as they involved various legal and administrative dimensions as shown by Figure 6. Therefore, in both the cases, separate chapters on policy direction of the case studies were written. Another complete chapter was dedicated to the stakeholder and discourse analyses in line with the requirement of the research design and the nature of data sources. Some data sources, such as the 2009 SAHA report, were not available online. They were obtained, as mentioned earlier, from some Kapiti residents during the fieldwork who had acquired them under the Official Information Act 1982.

In case of the LRR, a different strategy of handling data sources was adopted because many of the policy and planning documents were not available online. In this case, the interviews were conducted in Lahore after finishing the M2PP fieldwork in Kapiti. In this case, more information was collected through semi-structured interviews with a view to strengthening the data obtained through document analysis during the author's attachment with the Lahore Ring Road Authority in 2012-13. Accordingly, a similar division of chapters was made for the LRR as was done for the M2PP. Using mixed methods of data collection was part of strategy to shape the thesis in way that it could effectively meet the requirements of the theoretical and methodological frameworks.

4.8. Data analysis

All interviews were digitally recorded except one which was hand written. It was because one interviewee did not want his voice to be recorded. All thirty four interviews were transcribed by the author. The interview environment and the stress level of the interviewees were also taken into consideration in writing-down their ideas and opinions on paper. This approach was followed, keeping in mind the job sensitivities of some of interviewees, so that their interests are not harmed. Each interview was summarised and a conclusion was written in line with the methodological framework (Figure 5). The theoretical and methodological guidelines of PPR were also shaping the interview data production by transforming them into their thematic jurisdictions. The interview themes and the research questions have been an essential part of the interview data structuring. Based on the interviews data, these themes were explored in depth by cross verifying with document analysis. The raw data generated was thematically refined and structured in accordance with Figure 5.

4.9. Conclusion

This chapter has outlined the methodology and data collection techniques for the thesis describing various methodological requirements. Five key points may be noted about the research discussed in the following chapters. First, this chapter defines the methodological boundaries explaining how PPR needs to be practically implemented in the varying contexts of the M2PP and the LRR-SL. Second, the need and rationale for the fieldwork is philosophically conceived in order to make this thesis a piece of real comparative contextual research. Third, a detailed account on the research design and justifications for selecting qualitative methods is presented. Fourth, apart from presenting various critical issues associated with case study research, this chapter also presents the justifications and reasons for choosing a comparative case study methodology for the M2PP and the LRR-SL. Fifth, two cases were used to allow *within-case* and *cross-case* analyses.

This chapter follows a sequential order in which a dual/comparative case study for the M2PP and the LRR-SL is proposed and justified. Flyvbjerg's four phronetic questions are assigned their respective jurisdictions as per the requirements of the research questions. The structuring of interviews is done by placing power at the centre of analysis and by revolving the themes around 'roads investment and economic growth'. The interviewees are assigned to different groups on the basis of thematic considerations of phronetic philosophy. Other issues such as the number of interviews, participant recruitment criteria, number of questions in the questionnaire, and ethical issues are given due consideration. This chapter, in other words, provides a methodological and philosophical base for initiating the data collection fieldwork in both New Zealand and Pakistan.

CHAPTER FIVE

MacKays to Peka Peka expressway: a policy analysis

Most people have strong views on what we should do about transport. Yet few people have any role to play in deciding how we shape our transport systems. We believe that there are far better solutions to our transport problems than we are currently pursuing (Laird, Newman, Bachels, & Kenworthy, 2001, p. viii).

5.1. Introduction

This chapter presents data about the M2PP project to address the research question: “how does the current land transport policy justify achieving economic growth”? First, it critically reviews the policy and decision-making process of transport planning at the national, regional and local levels in New Zealand before analysing the M2PP case study. The chapter first outlines a policy framework provided by the Resource Management Act 1991, the Land Transport Management Act 2003 and the Local Government Act 2002. The second part connects different policy documents with various types of justifications advanced for expanding the roads network in New Zealand. These justifications are divided into technological, economic, political and aesthetic categories. In the third part, the M2PP case study is analysed vis-à-vis the economic justifications presented within the policy frameworks. It is observed that BCR, as noted in Chapter 2, is employed as the main criteria behind roads investment decisions in New Zealand. Apart from the BCR-led decision-making including wider economic benefits, the concept of strategic fit, earlier discussed in Chapter 2, is also analysed and its impact on economic justifications is evaluated. In the end, it is argued that the current land transport policy advances various categories of justification by linking them with building RONS and the M2PP. However, these justifications are weak because of several policy lacunae and loopholes.

5.2. Land transport policy and planning in New Zealand

Land transport policy and planning in New Zealand can be divided into national, regional and district levels as shown in Figure 6. When a road project is conceived, it is based on some expectations which form the basis of various kinds of justifications at the national level as per the legal and policy hierarchy on regional and district

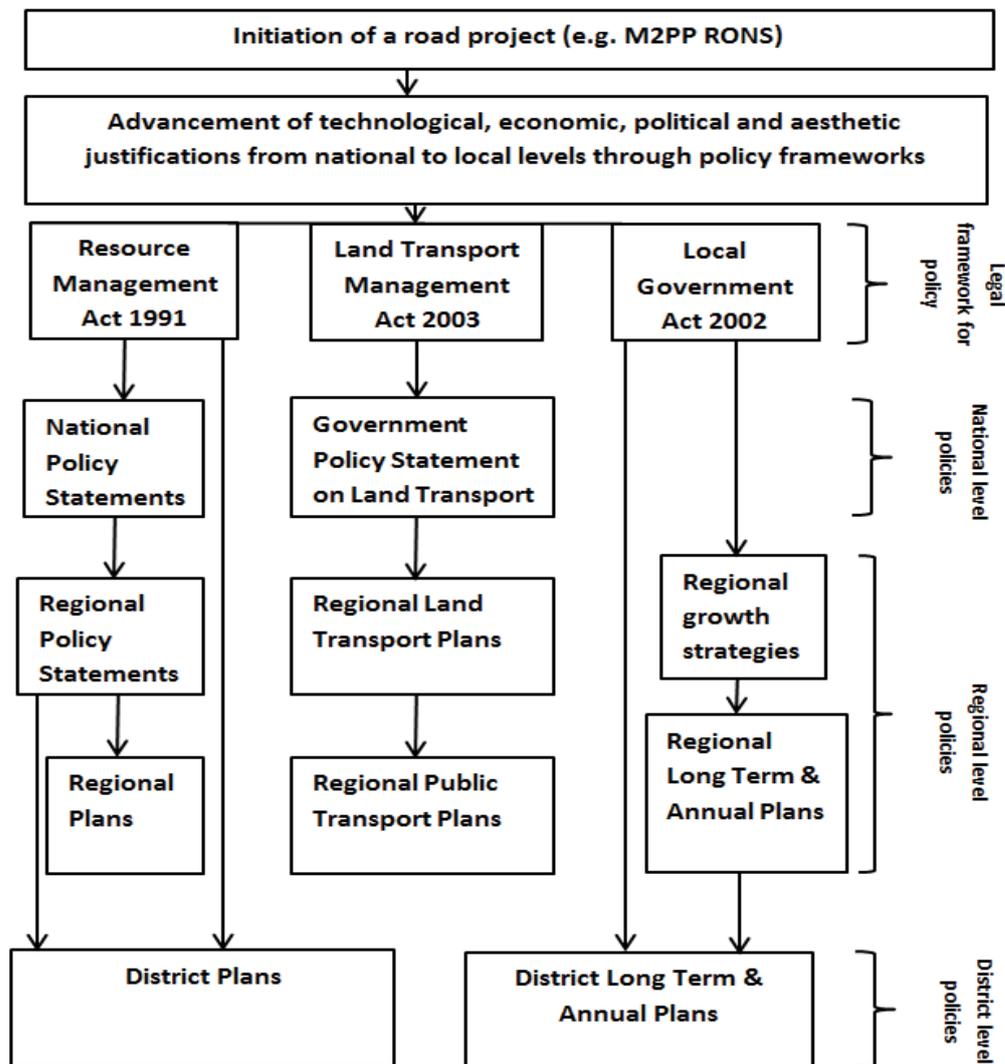


Figure 6: The land transport policy framework at national, regional and district levels (the author).

levels. The legal framework is mainly composed of the Resource Management Act (RMA) 1991, the Land Transport Management Act (LTMA) 2003 and the Local Government Act (LGA) 2002. This framework gives rise to various national level policies which are then advanced into regional and district levels as shown in Figure 6.

5.2.1. Land transport policy and planning at national level

The Government Policy Statement on Land Transport (GPS) is the main document that sets out New Zealand's strategic and policy goals for land transport, as well as the investment direction necessary to achieve them (Ministry of Transport, 2015, p. 1). Under the Land Transport Management Act (LTMA) 2003, the GPS provides the government's guidelines on land transport investment over the next ten years. Improving land transport for enhanced productivity of the wider economy is the main thrust of the GPS 2015 (p.4). It is important to note that this has been the constant emphasis of the GPSs 2009 and 2012 as well (Ministry of Transport, 2009b, 2012a). The GPS provides land transport funding for various activity classes such as roads, public transport and Regional Land Transport Plans (RLTPs).

The National Land Transport Programme (NLTP) gives effect to the GPS by detailing the strategic priorities and themes under which the NZTA's land transport investments are anticipated over the next three years (NZTA, 2015a). The NLTP 2015-18 states its vision as: "Over the next three years, this NLTP will deliver transport solutions that will help communities across New Zealand thrive" (NZTA, 2015b, p. 2). Its thematic significance is that it is more community inclusive. The NLTP 2015-18 also aims to spend 55% of the total expenditures to achieve economic growth and productivity through land transport investments. Approved by the NZTA, the NLTP drives improved performance from the land transport system.

The Ministry of Transport identifies seven key documents defining the transport policy and investment direction in New Zealand (Ministry of Transport, 2015, p. 42):

Connecting New Zealand (CNZ), the Business Growth Agenda (BGA), the National Infrastructure Plan (NIP), the New Zealand Energy, Efficiency and Conservation Strategy (NZECS) 2011-2016, the Safer Journeys Strategy (SJS): New Zealand's Road Safety Strategy 2010-2020, the Intelligent Transport Systems (ITS) Technology Action Plan 2014-18, and, the Public Transport Operating Model (PTOM). The Statement of Intent (SOI) and the Briefing to Incoming Minister (BIM) are some other relevant documents.

The CNZ is a strategic document that summarises the policy direction of the government decisions and documents from 2009 to 2011 (Ministry of Transport, 2011a). It acts as a strategic vision suggesting investment in transport infrastructure to lift economic competitiveness and productivity as part of the developed world (p.6). The CNZ outlines the government's broad transport policy direction over the following ten years (p.5). It identifies technological innovations as a future transport challenge and identifies seven main global trends in this regard (ibid, p.11): population growth, ageing population, global freight growth, fuel prices and volatility, transport emissions, security, and new technology. The CNZ is intended to help transport stakeholders to better understand what the government is seeking from the transport system. It does that by drawing together the government's transport policy direction as set out in a number of guidance documents, including the National Infrastructure Plan, the Government Policy Statement on Land Transport Funding 2012/13–2021/22 and the Safer Journeys: New Zealand's Road Safety Strategy 2010–2020. Together these documents outline the government's strategic direction and priorities for transport. The CNZ, for example, provides economic justification for roads expansion:

As a trading nation that is far away from our international markets, New Zealand, and our exporting businesses need an efficient transport system (p.6).

It justifies investments in new roads because of land transport's important role in supply chains for enhancing economic growth and productivity:

The government's key land transport actions include: investing \$36 billion in land transport over the next decade, including \$19.5 billion in State highways (p.20).

The investment figures indicate that the government favours roads over rail in the land transport mix by highlighting the role of supply chains that are mostly road based. The government's resolve to provide people with a transport system is an ideological dimension integrating people's interests with expanding roads in New Zealand:

The government is committed to delivering New Zealanders the transport system they need (p.2).

The BGA is also a strategic document aiming to achieve the government's priority to be economically stronger (MBIE, 2015, p. 3). It provides an economic vision for New Zealand to be part of the developed world by 2025 (p.5). It suggests that building infrastructure is a necessary condition for achieving economic growth by reducing distances and connecting internationally (p.7). The BGA is the main document reflecting 'the government's priority of building a more productive and competitive economy' (p.3). It aims to lift New Zealand's economic competitiveness by creating critical business opportunities, higher wages and more jobs resulting in better living standards. On the economic side, the BGA provides four main themes 'to deliver a stronger and more prosperous New Zealand' (ibid): building a more productive and competitive economy, responsibly managing the government's finances, delivering better public services within tight fiscal constraints, and supporting the rebuilding of Christchurch. Based on these themes, it views New Zealand's 'economic success' to be based on six cross-cutting sub-themes: infrastructure, investment, export markets, innovation, skilled and safe workplaces, and natural resources. BGA's technological justification is contained in its innovation argument:

Innovation enables firms to more efficiently produce products and services that are further up the value-chain – that attract a premium from our natural resources, intellectual edge and industry know-how (p.7).

Promising economic growth prospects for all New Zealanders seems less realistic and more political:

Now is the time to invest for on-going growth – the kind of growth that all New Zealanders and regions will have the opportunity to benefit from (p.4).

The Economic Development Minister Stephen Joyce in his recent statement highlighted the economic dimension of the BGA as:

... the government's Business Growth Agenda programme supports an environment where businesses have the confidence to invest, grow and create more and better paying jobs (Otago Daily Times, 2016).

The NIP is also a strategic document providing long terms vision for infrastructure development in New Zealand over next thirty year (Ministry of Infrastructure, 2015). It suggests that New Zealand's infrastructure (such as roads, railways and public transport) is aging and needs to be renewed to keep the economy growing (pp. 14-15). The NIP sets out the government's long term national level vision on infrastructure (Ministry of Infrastructure, 2015). First published in 2011, the NIP 2015 states that New Zealand's infrastructure is resilient and contributes to higher living standards and stronger economy. Using various economic, technological and political justifications, it provides a vision as to how a coordinated and resilient infrastructure in New Zealand can contribute to economic growth and productivity by 2030 (Ministry of Infrastructure, 2015). In this regard, the NIP suggests a very strong connection between roads and economic growth by linking people's everyday life, ranging from drinking water to internet broadband, with advancing infrastructure:

Infrastructure is the foundation to a prosperous economy. It provides electricity to our businesses – from our irrigation systems to our restaurant fridges, clean drinking water that protects our health, transport networks to connect our regions to the global marketplace, and broadband that allows us to do business anywhere (p.14).

It is an advancement of a belief system in which infrastructure was seen as something inevitable for enhancing economic growth and prosperity in the country

by providing economic justifications affecting the daily life of most New Zealanders.

It also raises the theme ‘technology is changing everything’:

Technology and the use of data is transforming the way infrastructure providers deliver services, and the pace at which this is occurring is only likely to increase (p.15).

The NIP also has a political dimension as well when, beyond the economy, it calls attention to the common problems of most New Zealanders:

Infrastructure matters outside of the economy, too: it matters when we go home at night and Skype our family overseas, heat our homes, and drive our children to their Saturday morning sporting pursuits (p.15).

For achieving economic benefits, the National-led government wishes to have:

... a long term strategic approach to transport planning which maximises the potential synergies between regional planning and central government strategies (Ministry of Infrastructure, 2011).

The NIP, therefore, provides the basis of various categories of justifications for building infrastructure in New Zealand. It specifically lays the foundations of economic justifications in the form of vision suggesting economic growth as the main objective behind expanding infrastructure in New Zealand:

[NIP] is a strategic document rather than a plan of what to build, when and why. It sets out investment principles and identifies what the government wants to achieve long-term (ibid).

The NZEECS is a long term strategic document providing direction to the energy sector under the overarching goal to achieve economic prosperity and maximise economic opportunities (EECA, 2011, p. 1). It aims to make improvements in energy conservation, energy efficiency and renewable energy (EECA, 2011, p. 16). This document states that energy conservation, energy efficient practices and technologies and renewable energy sources can enhance economic growth through increased productivity (ibid). The objective of the NZEECS 2011-2016 is to contribute to the energy priorities of the New Zealand Energy Strategy 2011-21. The

policy direction of NZEECS suggests energy as an integral part of a vibrant and prosperous economy which makes it an economic justification:

Most of this oil is imported, which exposes the New Zealand economy to volatile international energy prices (p.19).

The NZEECS relates transport technologies with everyday life:

Energy efficient transport technologies and driver practices helps keep fuel bills down. This helps households' living standards and the international competitiveness of firms (p.19).

The New Zealand Energy Strategy and NZEECS are also full of economic and technological justifications, for example:

Secure and affordable energy is needed to maintain our economic performance ... Of the energy we do use, using it efficiently will reduce costs, [and] enhance economic growth ... (EECA, 2011, p. 3).

Spanning over next ten years, the SJS is a strategic document sensitising that roads, vehicles, vehicle speed and road users needed to be safe (Ministry of Transport, 2010, p. 3). Safety is a main justification for roads expansion in New Zealand because it is one of the three strategic priority areas of the government along with 'economic growth and productivity' and 'value for money' (Ministry of Transport, 2014b, p. 5; 2015, p. 1). The SJS provides the vision for safe roads in New Zealand increasingly free of death and serious injuries (Ministry of Transport, 2010, p. 3). It is a guide to improve road safety for the next decade (ibid, p.2). In this document, the entire concept of road safety revolves around technology and design (p.11). The roads safety expectations from the automobile industry, for example, highlight one such technological justification in which its greater role is advanced:

The vehicle industry has to provide safe vehicles and be socially responsible when marketing vehicles to consumers (p.10).

Aesthetic justifications can be found at several places of SJS, for example:

We will work to improve our roads so that each type of road will eventually have a recognisable and distinctive set of self-explaining features such as signage, lane width, road markings and speed limits (p.14).

It notes that every year, hundreds of New Zealanders die while approximately 2900 receive major injuries and approximately 13000 receive minor injuries in roads related accidents (p.2). This makes safety a big concern of New Zealanders. Any strategy that addresses this concern, therefore, inherently involves politics including the SJS:

The roads belong to all of us and, in developing Safer Journeys, views were sought from all New Zealanders. This feedback was considered alongside evidence and research in selecting the road safety actions you see here (Minister of Transport, p.2).

In this regard, the Associate Transport Minister Craig Foss recently said:

The Guide, developed as part of the Government's Safer Journeys road safety strategy, is about ensuring all road authorities are making sound, evidence-based decisions with an emphasis on safety (TVNZ, 2016).

The ITS operates under the government's strategic context entitled 'economic growth and transport objectives' (Ministry of Transport, 2014b, p. 5). It provides a policy direction for employing ITS technology towards achieving desired transport outcomes (p.8). It provides the government's so called 'strategic approach' to incorporate intelligent transport system technologies in New Zealand (Ministry of Transport, 2014b). Under the strategic context revolving around economic growth and productivity, value for money and roads safety (p.5), the ITS presents New Zealand internationally as a test-bed for new technologies for achieving its strategic economic objectives:

It is, for example, currently legal in New Zealand for testing of driverless vehicles to take place on public roads, provided the vehicle meets relevant standards and a competent person is in the vehicle who can take control if required. Testing of this kind poses no specific legal issues and could potentially commence immediately without further government intervention (p.25).

The government perceives the benefits of these technologies as part of their strategic economic context of transport in which economy, trade and tourism have been linked:

Our economy is reliant on trade in goods and services such as tourism. A safe and efficient transport network is essential for delivering these goods and services (p.5).

As far as aesthetic justifications are concerned, ITS builds up its case on the basis of New Zealand's reputation with international companies:

[Our reputation] is based on some distinctive aspects of New Zealand such as our appetite for new technology, our relatively small but well-educated population, our flexible regulatory environment, and our diverse landscape and climate (p.25).

The government's reiteration of improving public welfare while advancing its roads expansion agenda seduces New Zealanders politically:

The government is committed to growing the New Zealand economy and increasing the well-being of all New Zealanders (p.5).

The PTOM primarily focuses on improving value for money by effective delivery of public transport (Ministry of Transport, 2011c, p. 1). It is also part of the above-mentioned three strategic priority areas of the government (Ministry of Transport, 2014b, p. 5; 2015, p. 1). A review of these documents reveals that all seven documents, in general, provide technological, economic, political and aesthetic justifications for building roads one way or the other (see section 2.4.2). These categories have been analysed at national, regional and district levels to determine how the current land transport policy justify achieving economic growth by building roads at national level and then devolve it at the regional and district levels. The PTOM is meant to provide the operating environment for the delivery of public transport in New Zealand (Ministry of Transport, 2011c). On the economic side, the document states:

In an ideal world, competition drives improved quality and decreased prices and provides consumers with choice. However, this is not happening in the urban bus and ferry market and is unlikely to develop naturally (p.1).

The PTOM argues that ‘value for money from government spending on public transport needs to improve’ (ibid, p.1). ‘PTOM is essentially a combination of planning, funding and procurement tools that encourage the increasing commerciality of services (i.e. less reliance on subsidy to cover costs) and value for money from public expenditure’ (p.3). It is centralised model imposed on the regional councils and is taking away flexibility from them. However it focuses on the public-private partnership (PPP) between the regional councils and public transport service operators:

The model seeks to build more of a public-private partnership and improve the relationship between regional councils and operators (p.3).

The PPP was encouraged by ‘creating an environment of aligned goals and objectives through collaborative planning, joint investment and risk and reward sharing’ (p.3). Its purpose is to deliver public transport services jointly by the regional councils and the operators so that the regional councils’ ability to provide an integrated public transport network could be increased. The PTOM provides several funding, procurement and planning tools developed as per the needs of three largest public transport markets (Auckland, Wellington and Christchurch) (p.2). In the light of various economic, technological, political and aesthetic justifications, it is now important to understand how these justifications are advanced and devolved at the regional and district levels. This ultimately defines the vision and strategic and policy goals of land transport in New Zealand for achieving economic growth by building roads.

5.2.2. Land transport policy and planning at the regional level

Land transport policy and planning at the regional level is usually governed by three documents (GWRC, 2013a): the Regional Land Transport Strategy (RLTS), the Regional Public Transport Plan (RPTP), and the RLTP. The relation among various national and regional level policy documents is shown in Figure 7. RLTS is a

statutory document providing the overall strategic investment framework for the region’s land transport (GWRC, 2010, p. 1). The RPTP specifically deals with the public transport direction in the region (GWRC, 2011, p. 1; 2013c).

The Greater Wellington Regional Council’s (GWRC) Long Term Plan and Annual Plans provide public transport expenditure and funding levels (GWRC, 2011, p. 36). Through these documents, various technological, economic, political and aesthetic justifications have a hierarchical trickledown effect on the evolution of a regional transport vision as shown in Figure 8. The most important regional level transport document is the RLTP (GWRC, 2015). It is prepared by the Regional Transport Committee (RTC). The GWRC’s RTC is comprised of representatives from all local councils, GWRC and the NZTA with the aim to facilitate the planning, funding and delivery of transport network (GWRC, 2015, p. 6). In addition, the GWRC has established advisory bodies providing advice on several issues affecting people. In the RTC, the GWRC ‘has a strategic transport planning and coordination role’, while the NZTA is ‘responsible for managing and operating the state highway network’, followed by district councils ‘responsible for managing and operating their relevant local road networks’ (ibid).

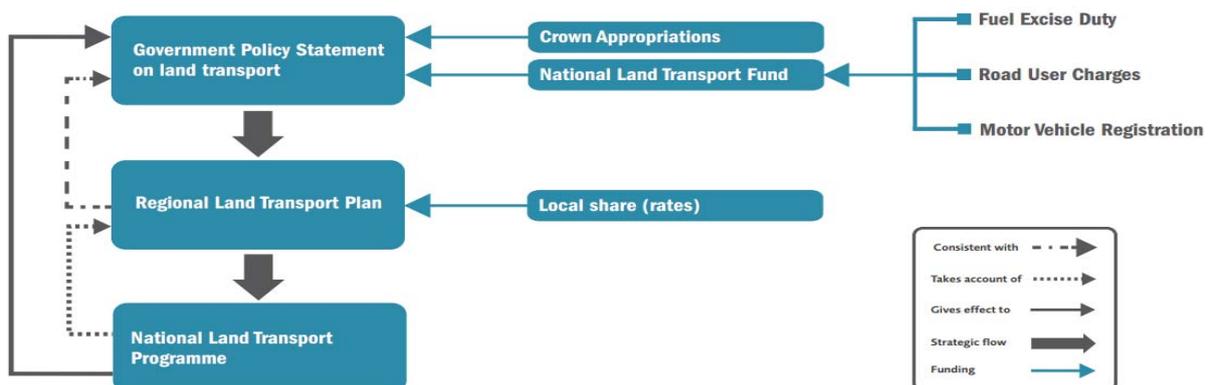


Figure 7: The relation between national and regional land transport documents (Ministry of Transport, 2015, p. 39).

RTCs ensure that RLTPs have consistency with the GPS (Ministry of Transport, 2015, p. 39). RLTPs provide a region's planned transport activities for at least the next ten years and prioritise the government funding through the NZTA. RLTP also sets out all transport projects alongside justifying what the transport projects will cost and how they will be funded (GWRC, 2012b). Wellington region's RLTP 2012, for example, economically justifies land transport investments as crucial for growing nationally and internationally:

Despite [the global economic recession], the RLTP [2012-15] proposes significant investment in our land transport network. It is crucial for our region to continue to grow and be competitive, both nationally and internationally (GWRC, 2012c, p. 2).

Various categories of national level justification give rise to the regional level theme 'transport inefficiencies lead to suppressed regional economic growth and productivity' (GWRC, 2015, p. 35). As a step forward this theme provides a regional level justification to acquire efficient and reliable access and movement for people and freight. This argument then takes the shape of three sub-themes: (i) a high quality reliable public transport network, (ii) a reliable and effective strategic road network, and (iii) an effective network for the freight movement. All national level technological, economic, political and aesthetic justifications are concentrated into the sub-theme 2 that roads expansion is a pre-requisite for achieving economic growth. Based on sub-theme 2, primarily focusing on expanding strategic roads network, a region's transport vision is framed in which the objective of achieving economic growth remains central. The regional visions have a further hierarchical effect on the district or city level transport policymaking. It is because city/district councils act as road controlling authorities for the management and operation of their respective local roads [see, for example, GWRC (2015, p. 6)]. Therefore, the operational planning of transport projects is done by the city/district councils under a regional vision (ibid).

5.2.3. Land transport policy and planning at the district level

The district or city level transport policy revolves around three documents: a district plan, long term plan and annual plan. A district plan primarily emanates out under section 73 of the RMA 1991 (RMA, 1991), as shown in Figure 6. The purpose of a district plan, under section 72, is to assist the territorial authorities/district councils to achieve the purpose of the RMA 1991 (KCDC, 2012; RMA, 1991). The functions of city/district councils include, but are not limited to, 'the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district' (RMA, 1991, s31). A district plan mainly states the objectives for the district, the policies to implement these objectives along with the rules to implement the policies (ibid, s75). Therefore, it transforms the technological, economic, political and aesthetic justifications into a legal local framework by operationally dispersing national and regional level objectives into local objectives. As operational planning of transport projects is done by the city/district councils (GWRC, 2015, p. 6), the nature of a district plan also becomes operational receiving guidance from the Regional Policy Statements and providing inputs to the RPTPs. Therefore, the status of district plans becomes critical to district level strategic transportation measures:

District plans establish a policy and regulatory framework for land use, subdivision and associated environmental effects. Land use planning decisions can assist (or frustrate) the implementation of strategic transportation measures (Quality Planning Resource, 2013, p. 8).

A Long Term Plan provides the community outcomes for the district or region (LGA, 2002 Schedule 10). A Long Term Plan also addresses a district or region's interest vis-à-vis the community vision. This document provides a framework for a district's expenses against which Asset Management Plans (AMPs) are developed. Out of a Long Term Plan, Annual Plans are set providing the Council's budget for the next

financial year alongside detailing the Council’s services, planned activities and the investment plans [see, for example, KCDC (2014, p. 14)].

5.3. MacKays to Peka Peka expressway – a policy and investment analysis

With this background, it is important to understand how economic justifications were perceived and advanced in the M2PP project. New Zealand’s seven initial

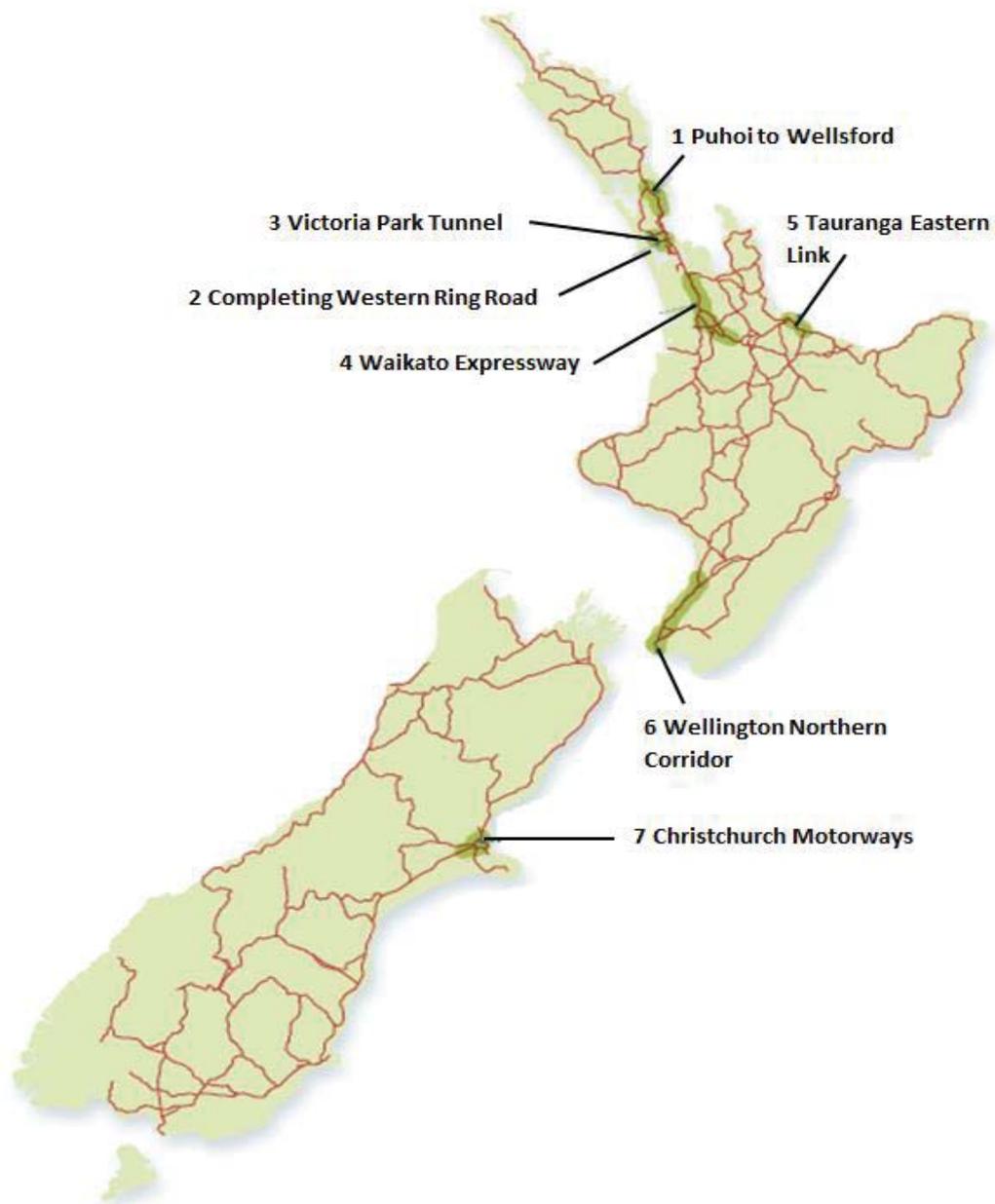


Figure 8: Seven initial Roads of National Significance [Prepared by the author based on NZTA (2010b)].

Roads of National Significance (RONS) were announced in 2009 in which priority was set for investments in these roads being the most important transport routes (NZTA, 2011c). As shown in Figure 8, the seven initial RONS are:

- (1) Puhoi to Wellsford
- (2) Completion of the Auckland Western Ring Route
- (3) Victoria Park Tunnel
- (4) Waikato Expressway
- (5) Tauranga Eastern Link
- (6) Wellington Northern Corridor (Levin to Wellington)
- (7) Christchurch motorway projects

The M2PP is one of the eight sections making up WNC-RONS (NZTA, 2011b, p. 2). The eight sections include (NZTA, 2009d): (i) Airport to Mount Victoria Tunnel, (ii) Basin Reserve, (iii) Terrace Tunnel, (iv) Aotea Quay to Ngauranga, (v) Linden to Mackays (Transmission Gully), (vi) Mackays to Peka Peka, (vii) Peka Peka to Otaki, and (viii) Otaki to North of Levin. The proposed M2PP route is shown in Figure 9.

The M2PP is a sixteen kilometre long expressway from north of MacKays Crossing to Peka Peka road following the designation set aside for the Western Link Road (WLR) (NZTA, 2013a). It is being built by an 'Alliance' made up of NZTA, Beca Planning and Infrastructure, Kapiti Coast District Council (KCDC), Fletcher Construction and the Higgins Group (NZTA, 2014b). The four sectors of the M2PP route include (EPA, 2013, p. 2): Raumati South (2.6 Km), Raumati/Paraparaumu (3.8 Km), Otaihangā/Waikanae (4.1 Km) and Waikanae North (5.6 Km). At the national level, economic justifications are present as a strategic objective in several documents, for example:

The government's priority for its investment in land transport is to increase economic productivity and growth in New Zealand. Quality land transport infrastructure and services are an essential part of a robust economy (Ministry of Transport, 2009b, p. 1).

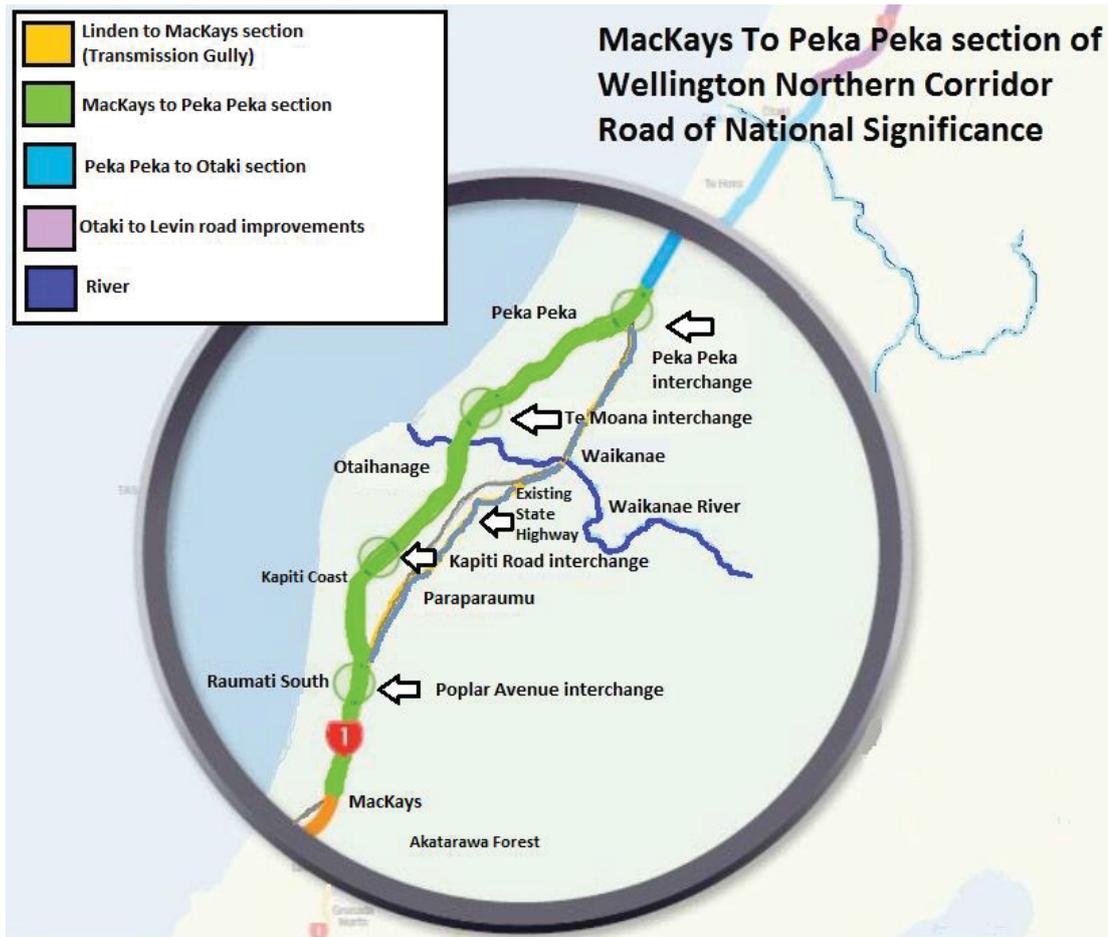


Figure 9: The proposed M2PP route [Prepared by the author based on NZTA (2011d)].

Clause 31 of the GPS 2009 notes down the statutory role of the LTMA 2003 as a guide for shaping the direction of the GPS (LTMA, 2003; Ministry of Transport, 2009b) and it is also shown in Figure 6. Under section 3, the purpose of the LTMA 2003 is ‘to contribute to an effective, efficient, and safe land transport system in the public interest’ (LTMA, 2003). In addition to these objectives, as indicated in the 2009 GPS, the LTMA 2003 gives rise to five themes: (i) assisting economic development, (ii) assisting safety and personal security, (iii) improving access and mobility, (iv) protecting and promoting public health, and, (v) ensuring environmental sustainability (Ministry of Transport, 2009b, p. 10). However, the National-led government’s policy direction is focused on the first theme as reflected in its three triangular priorities containing both in the GPS 2012 and 2015:

GPS 2015 continues the overall strategic direction of GPS 2012, prioritising economic growth and productivity, road safety and value for money (Ministry of Transport, 2015, p. 1).

At the Wellington regional level, five main documents advance economic justifications: RLTP, RLTS, RPTP, long term plans and annual plans. Several technological, economic and aesthetic justifications constitute the Wellington regional vision connecting M2PP with the regional transport network to achieve economic growth and productivity:

... the regional transport network will provide a high level of access, reliability and safety for both people and freight travelling within and through the region to support economic development and improve productivity (GWRC, 2015, p. 15).

‘There are two key regional documents which identify significant regional economic and land use considerations’ (GWRC, 2010, p. 57): the Regional Policy Statement (RPS) and the Wellington Regional Strategy (WRS). Under the RMA 1991, the RPS is a statutory document providing a regional policy direction for land use development [see, for example, GWRC (2013b)]. The WRS is a non-statutory document yielding sustainable economic growth strategy for a region [see, for example, GWRC (2012d)]. There are five main economic growth and land use considerations, identified by the RPS and the WRS, for the Wellington Region: efficient access to the Central Business District (CBD), airport, regional centres and the port; focus on higher density housing and mixed-use development close to the centres and public transport facilities; focus on a well-designed and compact urban form; promoting local employment opportunities, and, investment in east-west transport linkages along with the current north-south routes (GWRC, 2012d, 2013b).

‘A strong economy by enhancing the efficient movement of people’ is the Wellington region’s strategic priority (GWRC, 2012a, p. 56). However, public transport in the Wellington region seems to be conditioned with building ‘more roading infrastructure’ to achieve economic growth:

Public transport services contribute to economic growth and productivity by easing road congestion (and thus the need for more roading infrastructure), providing access to markets and employment, and making more efficient use of existing networks and infrastructure (GWRC, 2011, p. 4).

The relation between building M2PP and achieving economic has been justified in several district level documents as well, for example:

The MacKays to Peka Peka segment is well underway with fleets of earthmoving machinery giving shape to a national road that is expected to bring economic benefits to Kāpiti (KCDC, 2014, p. 8).

It is evident that the national level policy justifications have a hierarchical effect on the regional level justifications, which finally passes on to the district level as shown in Figure 6. The vision of the New Zealand Transport Strategy (NZTS) 2008, for example, is to provide an affordable, integrated, safe, responsive and sustainable transport system to people by 2040 (Ministry of Transport, 2008, p. 5). The NZTS vision acted as a context in framing of the GPS 2009, although the GPS had a greater focus on economic growth and productivity (Ministry of Transport, 2009b, p. 11). Based on the policy approach of the GPS 2009, the Wellington RLTS, for example, framed its vision in a hierarchical manner in line with the NZTS and the GPS 2009: 'To deliver an integrated land transport network that supports the region's people and prosperity in a way that is economically, environmentally and socially sustainable' (GWRC, 2010). The RLTS vision then trickles down to the Long Term and Annual Plans. However, changes in the Local Government Act also influence the Long Term and Annual Plans at the district level:

The content of this [2016-17] annual plan differs substantially from previous annual plans as a result of recent changes to the Local Government Act 2002, which aims to make annual plans more user-friendly and accessible. The legislation requires that annual plans only include 'significant or material' changes from the long term plan (KCDC, 2016, p. 2).

The advancement of economic, technological, political and aesthetic justifications was further explored during the interviews with stakeholders constituting: the experts, the residents and the politicians. The experts generally supported the

argument that M2PP will bring economic growth and productivity. Some experts related 'planned and unplanned consequences' with the M2PP related economic growth (Expert 1) while others saw 'strategic advantage' (Expert 2) in terms of 'land use changes' (Expert 4) and 'travel time savings' (Expert 3). To some experts 'infrastructures are very helpful in promoting economic growth' depending on the government's policies (Expert 1) while to others all infrastructures increase economic growth (Expert 4). A GWRC official saw tremendous economic benefits of building M2PP arguing:

I can say with confidence that M2PP will bring economic growth and productivity. Our Council [GWRC] is in complete agreement with NZTA in this regard. The benefits of travel time saving savings, safety and congestion relief will bring tremendous economic benefits by building M2PP (Expert 3).

A similar argument on economic growth was made by the developer Sir Noel Robinson as:

... the expressway could have economic and sporting spin-offs for Kapiti ... successful commercial airports make communities vibrant, and create economic growth (Dominion Post, 2012a).

While Expert 3 saw advantage in travel time saving, safety and congestion relief, an M2PP Alliance official argued that infrastructure is itself not bad because it has many advantages particularly better movement of people. However, it is all about the perception of economic justifications in relating infrastructure with value of time and better movement of people:

I mean you need to have better movement [by building M2PP] if you believe in the value of time but at the same time infrastructure is just like a round cake, it depends how you eat it (Expert 1).

In this regard, the Transport Minister said:

These travel time savings are just the beginning, with much of the roads of national significance programme still to come, but already these roads are delivering huge benefits to productivity and the environment (Dominion Post, 2013a).

Some experts treated congestion as the main bottleneck problem that had a strategic advantage in advancing economic justifications by building M2PP:

We want to see advancement in the continuing four lane expressway [M2PP] as you possibly get ... and the fact you know ... stop that from Levin means inevitably in future it's going to be a bottleneck problem ... so the Transmission Corridor indicator provides high quality from MacKays to Peka Peka onwards, we saw a strong strategic advantage [in M2PP] (Expert 2).

In order to reduce congestion and enhance safety, the Associate Transport Minister noted that:

A new "speed management guide" will allow for the increase on some roads. The guide will combine a range of information to help councils, the transport agency and other roading authorities decide where and when to make safety improvements or changes to speed limits (TVNZ, 2016).

An official of the M2PP Alliance was, however, slightly at variance with the government's view on advancing roading infrastructure. He related the economic justifications with the expansion of national and/or international economic markets arguing that better movement helps accelerate economic growth but under some circumstances in which national and international economic forces act. In his view, economic growth was conditioned with such circumstances:

... a boom in the national or international economy, which may in certain circumstances depend on better movement ... and may bring economic prosperity both at regional and national levels [by building M2PP] (Expert 1).

Another expert also suggested that economic growth may only take place under specific circumstances in which other factors such as land-use changes are also taken into consideration. His view was, perhaps, motivated by the local development and regional growth theories (see sections 2.2.2 & 2.2.3) in which land values and land-use patterns are pivotal in achieving economic growth:

... land use changes need to be accommodated in any analysis linking M2PP with economic growth and productivity ... if these changes have been taken care of, M2PP may bring economic growth (Expert 4).

Some experts thought that all infrastructure projects do not need to be well-planned because when a project is initiated several unexpected scenarios arise which are then supported by several other unexpected policy and planning responses that make a project yield the desired outcome:

I would say infrastructure in itself is not bad wherever it is ... it is the intended and unintended factors that make it a success or failure (Expert 1).

The local residents generally opposed all kinds of economic justifications of building M2PP arguing that there was no link between the M2PP and economic growth and productivity. According to one, 'M2PP benefits are far lesser than costs' (Resident 2) because, according to another, 'it is not a route which may be a part of a major economic activity' (Resident 1). Another issue for the local residents was the speed with which the M2PP developments took place. It was possibly because the newly introduced strategic fit and effectiveness criteria were fast track as compared with the traditional planning procedures creating risks for the local residents:

M2PP is too much and too fast ... we are not sure where M2PP is going to take us ... It's my concern that this approach has been adopted as compared with a risk-averse approach (ibid).

One of them criticised the agglomeration and synergy arguments arguing that they have been highly inflated by the National-led government and therefore the economic justifications do not carry weight:

... the economic growth benefits are something which are good over time ... traditionally these benefits haven't captured the further benefits of agglomeration or economic growth ... so in case of M2PP benefits are far lesser than costs (Resident 3).

The BCR of the M2PP was also questioned in the print and news media with some media anchor persons arguing that the M2PP benefits are far less than the costs making it is really an expensive project:

A great scoop by Campbell Live tonight shows that the cost-benefit ratio of the Mackays to Peka Peka part of the Kapiti Expressway – a key section of the Wellington Northern Corridor RONS project – has been recalculated recently as being 0.2. That is, for around \$630 million worth of spending we are only going to get roughly \$120 million of benefit (ATB, 2012).

To one resident, the roading issue in Kapiti was more local than national. To him, the strategic vision of achieving economic growth and productivity can be easily achieved just by improving some sections of SH1:

It is not a route which may be a part of a major economic activity ... the issue of roading in this area is local rather than a national issue ... (Resident 1).

One resident, however, favoured the economic justifications (possibly because he was an RTF official) on the grounds that inter-state linkages are vital for achieving economic growth and productivity as some countries such as the US had a similar strategy in the past:

Southern United States in the 1950s took and a lot of people attributed to rapid growth and productivity in the United States economy back in 50s and 60s as a result of having that inter-state network (Resident 3).

Despite this justification, some residents had fears that the M2PP building will promote the already prevalent car culture and will make people more dependent on petrol which is getting more expensive day by day. They considered it a big future risk because of their greater reliance on fossil fuel:

Many risks are emerging around ... I as a lay person can see, for example, viability of fuel based economy etc. (Resident 1).

A resident argued that the very concept of the BCR is faulty because its purpose is to secure government funding, so the economic justifications are weak:

M2PP will not bring economic growth in this area ... the way the government has traditionally approached investment in roads by doing cost-benefit analysis is faulty ... and in fact in order to get funding from national agency, you actually conduct one of these cost-benefit analysis even for NZTA state highways (Resident 2).

More specifically, he viewed the role of local authorities dubiously in justifying roads on the basis of higher BCR. In his view, the local authorities' aim is to secure the government funding, which is very competitive. They, therefore, use the BCR criteria as a tool to achieve their objectives in which people's real problems remain neglected because their primary objective is to secure these funds by promoting such projects despite being so expensive:

The local authorities want to build a local road, [because] they want state funding ... they have to justify spending to resolve the benefits against the cost (Resident 2).

Some residents blamed the roading businessmen behind the economic justifications and expansion of roads network in Kapiti in the form of M2PP:

It was not their [the government's] idea, it was put forward by the roading professionals ... it possibly has a support from the business people ... they have vested interest in these things [M2PP] going ahead (Resident 1).

A roading businessman was, however, of the view that New Zealand as an 'export nation' needed the M2PP as part of RONS for doing day to day business and for achieving economic growth:

Well, what our finding is that as an export nation, when you get economic growth, the freight task increases to a higher proportion and it's just the movement of goods as an exporting nation based on high proportion of production whether they are logs from forests from North to dairy farms or from live stocks or the transport processing facilities to the ports for exports (Resident 3).

In line with the economic justifications given by the National-led government vis-à-vis the counter-justifications presented by some Kapiti residents, it may be observed that underestimation of costs and over-projection of justifications is not a new phenomenon in New Zealand. The reasons for this practice in New Zealand are political, economic, legal and administrative in nature:

The ministerial report on roading costs produced in 2006 (Ministerial Advisory Group on Roading Costs 2006) clearly identified that the costs of a number of major roading projects ... escalated significantly (sometimes more than doubling). By and large this was the result of attempts by Transit New Zealand to avoid litigious delays in order to resolve political and community concerns in regard to environmental and community impacts of the projects (Ministry of Transport, 2006).

Some organisations such as NZCID, according to Resident 1, are quite influential in the roads decision-making in New Zealand. NZCID is a lobby group that aims to promote infrastructure for both public and private sectors of New Zealand. Their support brings inherent strength to the economic and technological justifications:

NZCID analysis finds that provision of public infrastructure in New Zealand is well behind international best practice. Constrained infrastructure capacity is inhibiting New Zealand's growth potential (NZCID, 2011, p. 3).

While some residents considered the NZCID as responsible for RONS (Residents 1 & 2), the NZCID CEO argued that the economic justifications are based on research showing that economic growth cannot be achieved without ensuring connectivity in Kapiti:

[M2PP] will create connectivity with the city much better ... so you are likely to get an increased rise in and out Kapiti ... you can understand their [Kapiti community] being concerned about that [M2PP] but on the other hand the new transport connectivity [M2PP] will create [economic] growth opportunity for the whole area (Expert2).

The economic justifications were strengthened by NZTA's Investment and Revenue Strategy (IRS) based on the concepts of 'strategic fit' and 'effectiveness' (NZTA, 2012b). The IRS is the investment tool that NZTA uses to ensure that investment in value for money activities is made that collectively achieve the objectives set out in the GPS 2012 (ibid, p.1). The IRS follows a three tier formula in making roads investment: strategic fit, effectiveness and efficiency:

The 'strategic fit' criteria in the IRS help us to select the right activities under the GPS ... the 'effectiveness criteria' in the IRS help us select the activities most likely to succeed ... the 'efficiency criteria' in the IRS help us select those activities providing the greatest benefit for the least cost, and use best practice procurement models (NZTA, 2012b, p. 2).

The concept of strategic fit assesses how a problem, issue or opportunity is aligned with the GPS results (NZTA, 2015d). The origin of the concept of strategic fit may be traced back to late 1970s and early 1980s when the United States and Western Europe economically suffered from Japan's ability to produce high quality goods at low costs (Martínez-Lorente, Dewhurst, & Dale, 1998). To achieve high quality at competitive costs, five types of service delivery gaps were identified (Zeithaml, Parasuraman, & Berry, 1990):

- (i) Gap between consumer expectation and management perception
- (ii) Gap between management perception and service quality specification
- (iii) Gap between service quality specification and service delivery
- (iv) Gap between service delivery and external communication
- (v) Gap between expected service and experienced service

The concept of strategic fit, therefore, comes from the significance of a problem, issue or opportunity which is related with an investment aimed at addressing a level of service gap (NZTA, 2015d):

The One Network Road Classification (ONRC) defines nationally consistent customer levels of service. Over time, all roads in a particular category should offer an increasingly consistent fit for purpose customer level of service for users. Identifying the gap to the ONRC customer levels of service will become a key input into the assessment of strategic fit for road maintenance and improvements.

In this regard, New Zealand follows the concept of 'one network' or 'integrated national network' in defining the strategic fit of an individual road (NZTA, 2015c):

[ONRC] will help local government and the Transport Agency to plan, invest in, maintain and operate the road network in a more strategic, consistent and affordable way throughout the country.

The ONRC helps categorise roads in line with the functions they perform as part of integrated national roading system. The categorisation helps NZTA and local government to strategically operate and invest in roads. In order to address the service gap levels, ONRC (2014) gives the process of implementing the performance measures. Three IRS assessment criteria are assembled in a single document called "assessment profile" as shown by Figure 10 where H, M and L stand for high, medium and low respectively. Based on this three tier formula, the economic justifications were specifically related with the 'strategic fit criteria':

The strategic fit criteria for transport activities have been further refined to prioritise investment that promotes the economic growth, productivity and safety impacts of the GPS (NZTA, 2012b, p. 3).

The 'strategic fit' criteria justifying the economic justifications has been quite controversial both for the politicians and the local residents. From the government perspective, NZTA claimed to have further refined it for achieving economic growth and productivity. An opposition party politician, however, categorically rejected it and labelled it as a 'blunt tool' for the M2PP decision-making:

The critique on RONS [and M2PP] economic policy is the lack of data or economic argument resource allocation decisions [which] revolve around BCR and then the idea of Strategic Fit and Effectiveness ... and arguably it is very blunt tool and I think would be really good to explore the extent to which journey time reduction can be quite at worth towards economic growth or economic development [in M2PP] (Politician 1).

Assessment profile (strategic fit, effectiveness, economic efficiency)	Priority
HHH	1
HHM, HMH, MHH	2
HHL, HMM	3
HLH, MHM, MMH	4
LHH, HML	5
HLM, MHL, MMM	6
MLH, LHM, LMH	7
HLL, MML, MLM, LHL	8
LMM, LLH	9
MLL, LML, LLM	10
LLL	11

Figure 10: The IRS roads investment assessment profile form (NZTA, 2012b, p. 15).

The data analysis suggests that economic justifications advanced by the government have been challenged by politicians, the residents and the media. These justifications have been partly based on the investment and economic assessment of the M2PP. Three documents are central in reviewing the investment and economic assessment of M2PP: the SAHA reports 2009 and 2010 and the Alliance M2PP scoping report (Alliance, 2010; SAHA, 2009, 2010b). SAHA is an international management consulting services company engaged by the NZTA to determine economic assessment of the RONS (SAHA, 2009, 2010b). The 2009 and 2010 SAHA reports became controversial, among some Kapiti residents, because the earlier suggested lower BCRs were later shown higher along with higher wider

economic benefits (ibid). SAHA (2009, p. 33), for example, indicates that three of the seven RONS had negative returns including M2PP as part of the WNC. The government never published this report possibly because the report did not sufficiently support RONS:

Mr Joyce announced the RONS programme in March 2009, before knowing what the return on the proposed investment might be. Nine months later, the Report from SAHA International, labelled “Final Report”, raised serious doubts about the programme. The Government never published the Report, and later sent it back for reworking. It tried to cover up the original, but not before a copy had been obtained by an action group on the Kapiti Coast (Pickford, 2012, p. 1).

One possible reason for this gap between the economic justifications presented by the government and the one perceived by the opposition politicians and the local residents is that most of the economic justifications were based on quantitative modelling in which the scope of public participation was limited and that too at the operational level. An NZTA report also indicates that the approach to estimating costs of M2PP has predominantly been based on quantitative methods:

The costs have been prepared by estimating various individual elements of work ... the cost estimates of each element of work have been calculated from recently tendered rates and using measured quantities from a high level design (Alliance, 2010, p. 64).

This deterministic approach is based on some assumptions which are potentially context insensitive. For example, there is no specific architectural treatment to bridges or structures (ibid). This approach potentially resulted in M2PP cost escalations. According to NZTA (2009d), the low bound costs of M2PP and Peka Peka to Otaki sections were estimated at \$380 and \$215 million respectively in 2009. However, in January 2012, NZTA announced the design improvements and cost estimates for the Kapiti Expressway. This report indicates that the revised costs of M2PP and Peka Peka to Otaki sections came out to be \$630 and \$250 million respectively (NZTA, 2012e), suggesting that the costs of the M2PP and Peka Peka to Otaki sections have risen by \$250 and \$35 million respectively within just three years. The report also outlines various reasons for the cost escalation in the Kapiti Expressway project. Among these causes are inflation, an upgrade of the Raumati

Straights not estimated earlier, provision of a suitable bridge design for all crossings of local roads and the retention of the east-west connections alongside increased earthworks and seismic investigations regarding the ground conditions.

As geographic location is one of the causes of cost overruns (Flyvbjerg, Holm, & Buhl, 2004), this factor was potentially underestimated at the time of RONS announcement (NZTA, 2012d). Geographically, New Zealand is located at an active seismic belt of the Pacific Ocean but the 2009 estimates for the M2PP section indicate that the earthworks and seismic costs were underestimated. This resulted in a substantial increase in the project costs in 2012 as seen, for example, in this excerpt:

The more detailed investigations of the ground conditions have shown that we need to deal with larger amounts of peat than originally expected, and this has increased the estimated earthwork costs. Partly as a result of the increased peat, the level of seismic protection works has increased from the originally estimated (NZTA, 2012d).

Against this backdrop of arguments for and against the economic justifications, it may be observed that the experts interviewed generally linked M2PP with economic growth and productivity, for example:

I do not have data with me right now but RONS, in general, will obviously increase economic growth and productivity ... it is not just a policy assertion but the benefit-cost analysis and strategic fit criteria reflect so (Expert 1).

Wellington is always in struggle if it does not have connectivity to total end so those state highways [RONS] are critical from that point of view as well ... so our view is that the RONS truly, actually, be financed from debt ... they are in turn better investments (Expert 2).

However, the economic growth argument was opposed by some local residents:

Waikanae is not an export based area; therefore the concept of an export based economy is not valid for the Kapiti area ... understand the problem and solve the problem ... do not jump into the solutions before you really understand the problem (Resident 1).

Another Kapiti resident, who was an economist by profession and an expert, also opposed the experts' argument of achieving economic growth and productivity by building roads. He suspected some 'behind the scene' power advancing RONS:

They [government] are still arguing that these roads will create economic growth ... it seems to become an article of faith, this is what they believe ... to me there is something else going on behind the scene to justify these very large expenses, something, 10 or 11 billion dollars to be spent on several roads [RONS], benefits are less than costs (Resident 2).

The views of the experts and the local residents indicate that the contextual issues were neglected in linking the M2PP with the economic growth and productivity argument. The real contextual issues are related to the non-participation of the local residents and the opposition political parties in initiating the very concept of RONS and the M2PP. A Member of a political party categorically challenged the very basis of the economic justifications arguing that the government does have necessary data to justify building M2PP RONS:

I think in general the RONS is a political project ... and it was the policy of National led government in 2008 to prioritise seven new state highway projects, one of which is the Wellington Northern Corridor ... and this is being justified from the beginning by the assertion that building of state highways will stimulate economic growth (Politician 1).

The non-participation of the general public and political forces in the strategic decision-making process of the M2PP RONS led to the argument that RONS instead of accelerating economic growth will in fact decelerate it:

I believe that many of the motorways [RONS] have been identified, correct or incorrect, as Roads of National Significance ... they should probably be deferred or delayed indefinitely because they will not achieve the government's aim of lifting economic productivity and in fact they will be counter-productive (Politician 2).

The demand of some opposition parties to postpone the RONS building is possibly an indicator of policy deficiencies accruing from the top-down decisions of building RONS by the National-led government. This also seems to be indicative of the prospective policy direction that unless the government follows a meaningful consultative policymaking approach, RONS should be deferred. Furthermore, the authoritarian policy of initiating RONS also casts doubts on the National-led

government's credibility behind the advancement of the economic justifications in terms of the fuel prices and value for money:

I don't see how the motorways could substantially contribute to economic growth or productivity because at the moment our transport sector is very reliant on vehicles which are powered by fossil fuels which is becoming more expensive (Politician 2).

The data from documents and interviews indicate a wide political gulf between the economic justifications presented by the government and its perception by the local residents and the political parties. The opposition parties have been arguing that the National-led government does not have any data to support their policy of building RONS, weakening the economic justifications advanced by the government. This creates counter-justifications strengthening the arguments that M2PP will not bring economic growth and productivity for the Kapiti people.

5.4. Conclusion

The economic justifications advanced by the National-led government have been devolved from the national to the project level in a systematic policy framework as shown in Figure 6. However, the justifications of achieving economic growth and productivity by building the M2PP have been constructed mainly on the basis of BCR and strategic fit criteria. The main policy issue was 'whether RONS be initiated or not'. If they are to be initiated, they should have been accompanied by robust data to support all categories of justifications. If they were to be built immediately without waiting for data collection and analysis, an extensive political and public consultation should have been the hallmarks of the policy direction. The M2PP policy direction has been mainly determined by technical tools such as the BCR and the strategic fit criteria which have created resentment among the opposition parties and the local residents. This approach has ignored the contextual policy issues of the M2PP which apparently do not have any impacts on economic growth, but matter in a practical sense. The economic growth argument lacks credible data on the M2PP. There has been a greater focus on achieving economic growth and productivity by building RONS after issuance of the GPS 2009. Economic growth and

productivity, value for money and safety remain triangular priorities of the New Zealand government by building the M2PP.

It may be observed that the experts' approach, based on quantitative methodologies, is very different from local people's approaches who view their contextual issues very differently. These issues, such as displacement of people, community severance, changed land scape, and lower BCR, are indeed significant issues which are externalities that should be quantified when calculating the effect of roads investment. The absence of a strategic context in the GPS 2009 indicates that the New Zealand government did not have reliable data at that time to build the M2PP as part of RONS. A policy analysis at the national, regional and local levels suggests different policy trends in which contextual issues and values remain significantly neglected. The investment analysis indicates that the provision of cost overrun suggested by traditional BCR methods is less than actual cost overruns. The policy and investment analyses indicate that the M2PP costs have been underestimated whereas the economic justifications have been advanced disproportionately. Based on these findings, it is argued that New Zealand wishes to achieve economic growth and productivity to catch-up with the developed world. However, this approach lacks reliable data on the M2PP. Without reliable data, building M2PP may cost more than the benefits accrued. The justifications of the current land transport policies for achieving economic growth are weak. There is a need to seriously take on board the contextual issues so that M2PP decision-making could address the issues and values which have, hitherto, not been able to take their place in connecting M2PP with economic growth.

CHAPTER SIX

Planning process and pragmatism in MacKays to Peka Peka Road of National Significance

Despite detailed economic analyses New Zealand is not progressing. This suggests we may be tackling the wrong issues, or tackling the right issues in the wrong way. We should take nothing for granted. Some conventional wisdom might be masking the real issues and solutions (IPENZ, 2011, p. 12).

6.1. Introduction

The purpose of this chapter is twofold: (1) presenting data to analyse how the benefits of roads investment are perceived by the M2PP stakeholders, and, (2) presenting data on discourse behind the claims of achieving economic growth by building M2PP. This chapter is divided into two sections. The first section explores the planning process in M2PP by carrying out a stakeholder analysis. The second section focuses on discourse and content analysis to explore storylines advanced to justify M2PP. Finally conclusions are drawn.

6.2. Part 1: Stakeholder analysis

The purpose of stakeholder analysis is to explore the gap between the government's and stakeholders' perceptions of the M2PP project and its benefits addressing the second phronēsis theme: 'handling different perceptions'. The concept and relevance of stakeholder analysis is given in section 2.4.2. Based on the M2PP Consultation Report¹⁶ (NZTA, 2011a) and interviews, the views of political, statutory, territorial, business groups, emergency services, industrial, interest groups, Maori, and individuals / groups stakeholder categories are identified.

Under the legal requirements, NZTA followed a resource consenting process in M2PP. This process is illustrated in Figures 11 and 12. Figure 11 only explains the resource consent process. Figure 12 provides the micro level picture of the overall

¹⁶ The report was prepared by the NZTA.

process including the pre-construction stages. The M2PP resource consent process, involving nine stages, is shown by Figure 11. NZTA first investigated different M2PP route options and consulted the public in 2009 (Alliance, 2011; EPA, 2013, p. 8). The NZTA Board later recommended proceeding with the RMA applications for M2PP. This stage was followed by technical studies and the assessment of environmental impacts in 2010/11 (Alliance, 2010, 2011). At the next stage, NZTA lodged its regulatory consents application for M2PP with the Environmental Protection Authority (EPA) in April 2012 (NZTA, 2012c). In July 2012, the Minister for the Environment referred the regulatory consents application lodged for M2PP to a Board of Inquiry (BOI) for determination (ibid). The BOI hearing for the M2PP regulatory consents application took place between November 2012 and January 2013 (ibid). In April 2013, the BOI announced its decision and final report on the NZTA application. The BOI decision was challenged in High Court. In this regard, the High Court heard two appeals in July 2013 which were dismissed in August 2013. Following the dismissal of appeals, the M2PP construction started in late 2013 and is expected to be completed by the end of 2017 (NZTA, 2012c).

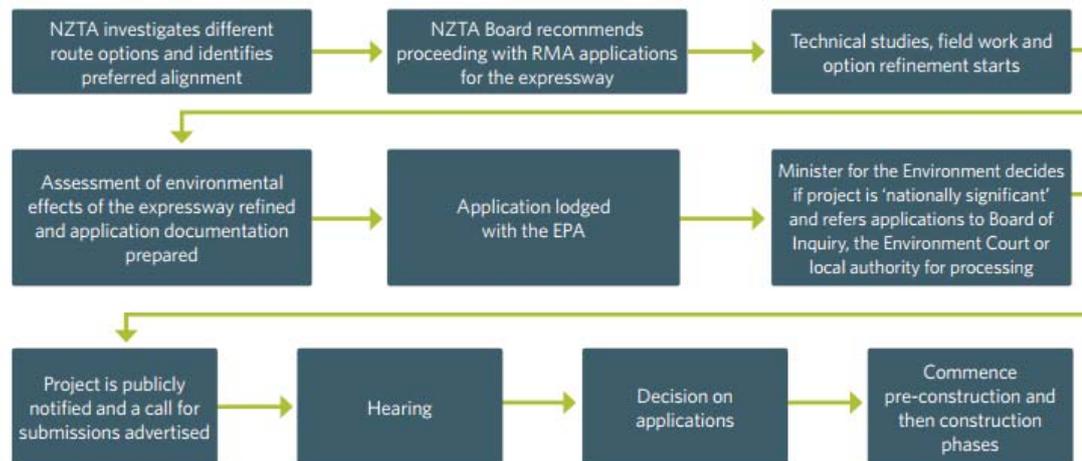


Figure 11: The steps involved in the consenting process for RONS under the Resource Management Act requirements (NZTA, 2011a, p. 10).

In case of M2PP, the submissions on the application were received by NZTA followed by a summary produced by the EPA. Then, in 2012, a pre-hearing conference was

held in Wellington (BOI, 2012a, 2012b). The applicant then prepared evidence-in-chief¹⁷ (EIC) which was presented to the Environment Court Commissioners in front of expert witnesses.

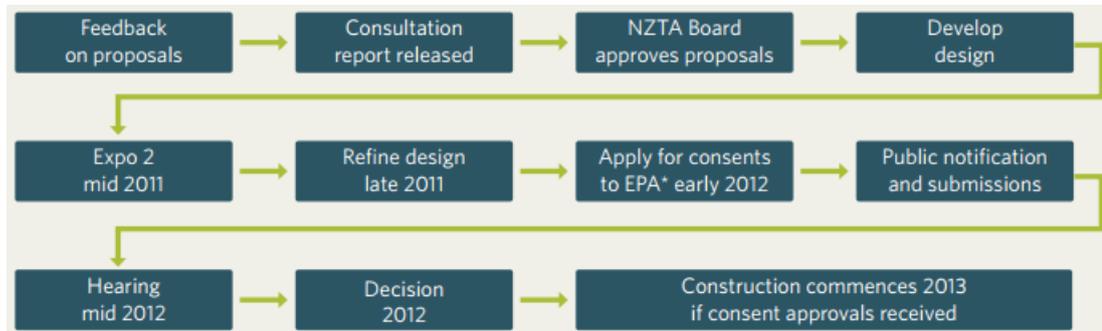


Figure 12: The pre-construction decision-making process in M2PP (NZTA, 2011a, p. 14).

During the BOI hearing in 2012/13, apart from the assessment of alternatives, various national, regional and local/district level policy documents were evaluated within their legal jurisdictions to reach a decision. In case of M2PP, thirty five statutory and non-statutory documents were identified and evaluated during the hearing process. Some of the statutory documents include (EPA, 2013): National Environmental Standards for Air Quality, New Zealand Coastal Policy Statement 2010, Wellington RPS (operative and proposed), Regional Air Quality Management Plan for the Wellington Region, Regional Coastal Plan for the Wellington Region, and Operative Kāpiti Coast District Plan. Some of the non-statutory documents considered are the Government Policy Statement on Land Transport Funding, New Zealand Transport Strategy 2008, National Infrastructure Plan 2011, Western Corridor Plan 2006, Wellington Regional Land Transport Strategy, Wellington Regional Strategy 2007, National Land Transport Programme, National State Highway Strategy 2007, The 2011/2012 (2013/14) State Highway Plans, NZTA Environmental Plan 2008, Getting There – On Foot, By Cycle Strategic Implementation Plan 2006 – 2008, Wellington Regional Freight Plan, KCDC Development Management Strategy, and, KCDC Sustainable Transport Strategy.

¹⁷ It refers to direct examination of witnesses such as affidavits, annexures and tendered documents.

In addition to RMA, s96(1) of LTMAA 2013 place the NZTA under the legal obligation to consult relevant stakeholders before implementing the M2PP project as part of the planning process. Therefore, '[NZTA] believes that to make good decisions and provide sound advice to decision makers, it is important to include the perspective of stakeholders' (NZTA, 2012a). For public engagement, NZTA follows the Highways and Network Operations Public Engagement Manual, originally drafted by Transit in 2007 (NZTA, 2014a). This manual is an updated version of Transit's Public Engagement Manual containing the policy, standards and guidelines for NZTA's engagement with the public. For M2PP, NZTA prepared a Stakeholder and Communication Management Plan (SCMP) for engaging communities (Black & Brophy, 2012). The SCMP is based on current understanding of construction activities and traffic methodologies necessary to facilitate the construction work. Its scope is limited to Kāpiti Coast communities, road users and the Wellington region residents (ibid).

The M2PP consultation took place in three phases since the project was initiated (NZTA, 2011b). This includes the pre-implementation consultation stage in 2009/10 (NZTA, 2009b), consultation on alignment and interchange options in 2010/11 (NZTA, 2011b, p. 2), and, consultation on M2PP design development (NZTA, 2011b, p. 3). The main objectives of these consultation exercises were to provide information about the route options, project connection to local roads, the number and location of interchanges NZTA was considering, feedback from the public and stakeholders on the options being considered, and the criteria that NZTA would use to make their following consultation (NZTA, 2011b, p. 5). The consultation exercise also informed the public about possible mitigating measures to address embankments, landscape, noise, air quality, vibration, storm water and visual effects as required by RMA. NZTA uses different methods to involve local communities in these consultation phases. It prepared brochures and postcards, conducted individual meetings and EXPOs, set up an information centre, website, project phone line and feedback form and used newspaper and radio for advertising purposes (NZTA, 2011b). Methodologically, all submissions were recorded in a database

(called Darzin) by noting down the name and contact details of the submitter, the type/method of submission made, opinions expressed and a summary of the comments made.

The three route-alignment and interchange options consultation phase received 1617 submissions from which eighteen key submission themes were identified by NZTA. These include: support for proposals, opposition to proposals, design, accessibility and connectivity, construction, environmental considerations, social and community, health and safety, amenity and urban design, culture and heritage, economic factors, property, transportation, local network, justification of route, other route options, and consultation. The design development consultation phase received 216 submissions which were categorised into the following ten themes: accessibility for alternative forms of transport (non-motorized transport & public), environmental considerations, interchange design, health and safety, consultation, private property, general design, road network operation, community, and national and regional economic impact.

The M2PP alignment, interchange and design options were finalised on the basis of these consultation and NZTA criteria. Because of the adoption of a consultation process, some stakeholders seem satisfied as reflected in their comments ‘Just do it! Thanks for the consultation’; ‘it is obvious much thought and many hours went into planning. Thank you’; and, ‘looks good. Well presented “considerations”, explanations are very good’ (NZTA, 2011a Appendix J). This suggests, in summary, the formal rules for stakeholder consultation were systematically followed in the M2PP.

Regardless of the statutory provisions of involving stakeholders in the transport planning process, a resident argued that the government is ‘selective’ in hearing the stakeholders’ voices so that it could manipulate the public consultation process and make it ‘more acceptable’ (Resident 1). Similarly politician 2 argued that ‘they [government] had not really investigated [RONS] but they made a decision and their

approach to consultation is very much getting people on board in building support for the solution that they already decided on ... and not actually the communities output to incorporating that into the solutions’.

These arguments were further strengthened when some political parties also held the government responsible for not taking all stakeholders on board ‘meaningfully at the strategic level’ in the RONS decision-making process which was perceived as a top-down approach:

[The] government’s policy is to elevate these RONS above the normal resource allocation processes ... they decided to impose it on the community ... they didn’t say alright, let’s have a discussion involving the public and the community involving good data and good advice and let’s make a decision together what is the best option ... when they [government] started making high level political decisions, they try to impose it on the interest groups like Kapiti District Council and local communities. That’s what happened (Politician 1).

His argument suggests that non-involvement of stakeholders at the *initiation* (strategic) phase (see Figure 13 & section 2.4.2) resulted in a blame-game, distrust and even conflict at the local levels. Being completely oblivious of the strategic level decision-making of the M2PP, a Kapiti resident first suspiciously looked at Road Transport Forum (RTF) indicating this blame-game and distrust:

Many people point finger at the Road Transport Forum [for building RONS] but I don’t think this is the case because they offered their submission in 2009 (Resident 1).

An RTF official who was also a Kapiti resident responded that they had justifications for promoting roads infrastructure:

Yes, we [Road Transport Forum] are lobbyists ... our members are in business of road transport ... we need infrastructure to do the job and we pay for it (Resident 3).

The Kapiti resident, then, suspiciously pointed out NZCID:

One group may have been involved [in building RONS] – New Zealand Council for Infrastructure Development ... NZCID report 2006/7 is almost a blue print where the things have gone (Resident 1).

NZCID CEO, however, justified their position on technical grounds:

NZCID is a very strong proponent of the RONS largely because of two reasons: one [not only] is obviously the economic stimulus in terms of productivity of NZ's leading cities but also the road safety improvements that RONS would create in the long run (Expert 2).

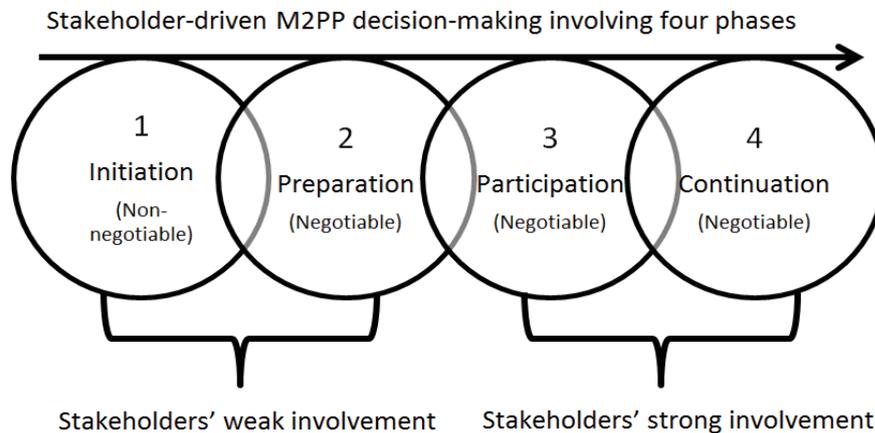


Figure 13: The weak and strong phases of stakeholders' involvement in the M2PP project.

During the consultation process, there was no such option as to whether M2PP should be built or not. This makes it a non-negotiable area. This is followed by the *preparation* phase which is, although negotiable, connected with *initiation* phases. The above-mentioned views of Politician 1 suggest that it was already decided that M2PP will be built; now it is time to prepare for consultation. Therefore, it is negotiable. In case of the M2PP, the first two phases are weak because the public was not engaged in a meaningful and empowering manner. However, the M2PP consultation is very strong in the following two phases of *participation* and *continuation* (Figure 13) in which the main thrust of the NZTA-led Alliance¹⁸ was to consult stakeholders on design and route issues.

The feedback of the various categories of stakeholders on the three route options (NZTA, 2010a) indicates a complete absence of stakeholder participation at the strategic phase of *initiation*. In the political category, the Labour Party's response, for

¹⁸ It is the M2PP construction alliance made up of NZTA, Beca Planning and Infrastructure, Fletcher Construction and Higgins Group supported by Goodmans Contractors, Incite and Boffa Miskell

example, indicated strong disagreement with the government's perceptions of the M2PP benefits:

None of the expressway options would meet the needs of either the local community or the travelling public. [The Labour Party] supports the two-lane Western Link Road as a local road ... and improvements to SH1.

In the territorial category, the Greater Wellington Regional Council saw all three options as detrimental to the environment:

The expressway options would affect local rivers/streams, access to rivers, floodplains, flood flow paths and land that it manages.

The Manawatu-Wanganui Regional Council, however, supported the three options on the basis of 'improving the safety, capacity and reliability of State Highway 1'. As the district and city councils usually have jurisdictional roles at *participation* and *continuation* levels, some of the territorial councils generally supported the three options:

We do support whichever of these options will be completed soonest (Horowhenua District Council).

[We] support the KDC submission. Expenditures on the expressway to be deferred until later in the Wellington RONS programme (Porirua City Council).

Some statutory stakeholders took exceptions in clearly supporting any of the three options indicating an absence of their meaningful participation at the *initiation* and *preparation* stages. The Department of Conservation, for example, saw M2PP as a threat to local fauna and flora:

Undoubtedly impact is nationally significant and in some cases threatened plant communities that occur through this corridor.

Several interest groups categorically opposed all three options, on various economic and transport grounds, indicating a lack of their meaningful participation in the M2PP decision-making:

[It] does not endorse any of the three expressway options (Nature Coast Enterprise).

[It] considers that the expressway proposals could have serious impacts on the Paekakariki community (Paekakariki Community Board).

[It] questions why an expressway needs to be built at all. It avoids that the two-lane Western Link Road is the only option (Paraparaumu-Raumati Community Board).

Whatever expressway option is chosen would have substantial detrimental effects on the Waikanae residents and the business community (Waikanae Community Board).

NZ Historic Places Trust also opposed 'the Western and WLR Expressway options'. The transport industry stakeholders, however, supported the three options possibly because of their business interests:

Busy highways with 10% heavy vehicle traffic are incompatible with residential low speed environments with older drivers, pedestrians, cyclists and horse riders (Automobile Association).

[It] states that it does not have enough information costs, road user benefits, and social/environmental effects ... the expressway options presented seem to focus on through traffic rather than on local traffic (RTF).

[It] recognizes the need to provide for the efficient and safe movement of people and goods throughout the region (Wellington Regional Transport Committee).

Some business groups also indicated their reservations indicating their absence at the strategic level decision-making:

The preferred expressway option must provide local connectivity between residential areas, good access between SH1 and Paraparaumu (Kapiti Coast Chamber of Commerce).

The chamber notes that a detailed cost benefit analysis was not provided. It comments that it is important that over-capitalisation does not occur on the preferred expressway (Wellington Regional Chamber of Commerce).

NZ Fire Service, as an emergency service stakeholder, had a limited focus on relocation of a fire station to support WLR:

The Paraparaumu Fire Station was relocated to Te Roto Drive in early 2009 to be in close proximity to the two-lane Western Link Road ... ensure safe and efficient access is available to the proposed local roads (NZ Fire Service).

Many Maori stakeholders also opposed the three options indicating lack of meaningful stakeholder participation:

Options along the coastline or western route will be strongly opposed by Muaūpoko (The Board of Muaūpoko Tribal Authority).

It is undesirable for the expressway to go through QE2 Park. The historic importance of Whareroa Farm should be taken into account (Te Runanga o Toa Rangatira Inc).

In summary, the stakeholders' involvement in the M2PP project is confined only to the project's participation and continuation phases and not at the strategic stage of initiation and preparation. This is possibly because of political over-optimism of the National-led government attracted to catch-up with the first world countries in shorter time through massive infrastructure investment as referred to, for example, by the television programme Campbell Live (2012).

6.3. Part 2: Pragmatism in M2PP

Following the third phronēsis theme 'defining pragmatics of the mind's eye', this section analyses the discourse behind the claims of economic growth. As discussed in chapter 3, discourse develops norms, values and perceptions which play a significant role in setting the direction of transport policies. Discourse not only holds the perceptual ideas together but also provides narratives that make politicians, policymakers and general public understand and advance complex issues (Imran & Pearce, 2015; Vigar, 2002, p. 17). Accordingly, this section aims to explore 'planning discourse' behind building M2PP by analysing documents and interviews data.

Economic growth and productivity is the main discursive storyline to justify investment in roading projects in New Zealand. The construction of M2PP RONS has been strongly advocated as a project supporting *productivity and economic competitiveness* in New Zealand (Ministry of Infrastructure, 2010, p. 10). The National led government continues to see economic growth and productivity as its strategic objective of RONS in terms of *value for money* (Ministry of Transport, 2015, p. 1) and *support for economic growth* (Ministry of Transport, 2014c). It also envisages RONS to *enable economic growth rather simply responding to it* (NZTA, 2014c). The National-led government prioritized these roads as "very important" (NZ

Herald, 2009b). It was also anticipated that the M2PP will encourage big businesses to migrate to the Kapiti district (Dominion Post, 2012a) and that there are numerous benefits of advancing roads (TV3, 2012a). The main discursive storyline *economic growth and productivity* relies on two main themes: conventional economic benefits, and the wider economic benefits (WEBs) of the M2PP project. The **conventional economic benefits** rely on three headings or sub-storylines: travel time saving, safety and vehicle operating costs.

Travel time saving: The published documents reviewed in Chapter 5 and interviews conducted with experts indicate a perception that building M2PP will improve *travel time saving* (SAHA, 2010b, p. 4) by allowing *traffic more quickly and timely in terms of travel time* (Expert 3) and improving *security of the route* which is *directly related to economic prosperity* (ibid). Another perception is that travel time saving is mainly achieved *for peak hour commuters and freight traffic* movement (Expert 4), opening up *new lands for development* (Expert 3) thus bringing *large economic benefits* (Expert 2) and *prosperity* (Expert 3). Therefore, 'BCR needs to include potential land use changes for better results rather than existing land use, and existing population' (Expert 4). The Transport Minister argued that 'a two-minute time saving through the Ngauranga Gorge is proof the Government's roads of national significance programme is a good thing' (Dominion Post, 2013a). Building further upon the travel time saving argument, some experts conditioned New Zealand's productive capacity with the continuous growth of infrastructure (NZ Herald, 2009c), which, according to the Transport Minister, will increase business growth, tourism and jobs (Dominion Post, 2013a).

In order to better understand the experts' acts of interpretation, an analysis of their phonological, grammatical, categorical, symbolic and rhetorical semiosis was carried out. For example, the M2PP Alliance Project Manager stated:

... travel time saving is a consideration in M2PP ... travel time saving remains instrumental in promoting economic activity ... M2PP will bring better roads travel

time saving as compared with the current state highway 1 ... therefore the benefits of travel time saving will surely be achieved (Expert 1).

He gave a diplomatic view in the first two sentences indicating 'indifference' or 'uncertainty'. However, in the third and fourth sentences, he used the words 'will' (twice) and 'surely' indicating a strong certainty that travel time saving will create economic growth. Furthermore, he gave the textual sign that may be given significance because of its comparison with SH1 in a categorical semiotic style.

The experts' treatment of travel time saving as a determinant of economic growth and productivity may be an ideological or educational reproduction of a concept. It is, therefore, important to explore how much this discourse has penetrated into political beliefs and perceptions of the Kapiti residents. The politicians interviewed had some reservations on travel time saving advanced by the experts. They argued that 'BCR is a blunt tool' and does not provide an answer as to why 'journey time reduction can be quite at worth towards economic growth' (Politician 1). Moreover, travel time saving benefits towards economic growth should not be generalised because they totally 'depend on a case to case basis' (Politician 2). While referring to M2PP, Politician 2 argued that travel time saving should not be prioritised over 'negative impacts on the community' which is quite evident from the sign highlighted by some Kapiti residents (Figure 14).



Figure 14: A billboard created by some Kapiti residents (Save Kapiti, 2012).

While the campaigner Bianca Begovich blamed the NZTA of ‘manipulating the figures’ (Wellington Scoop, 2012), the Green Party also opposed the travel time saving argument arguing that ‘spending billions on massive motorways might mean quicker trips for the 4 per cent of journeys on them but that doesn’t mean that they make economic sense’ (Dominion Post, 2013a). Some indigenous campaigners and lobby groups also opposed the expressway (Dominion Post, 2010b, 2010d), arguing that the travel time saving argument is weak. The same arguments were later used to claim that the Kapiti expressway’s actual BCR is only 0.2 (Anderson, 2012). Three Kapiti residents, similar to the views of politicians, showed their concern on prioritising the M2PP because of a minor benefit of travel time saving. Some of them argued that travel time saving is a ‘normal benefit of BCR’ and a ‘prospective travel time saving of four minutes’ is hard to convert into economic growth (Resident 1). However, some residents believed that ‘four minutes can make a difference in terms of agglomeration and economic benefits of transported goods’ (Resident 3). By building other roading projects, such as the Transmission Gully, M2PP will get full benefits (ibid).

Safety: Safety is the second sub-storyline in M2PP. Here two dimensions need attention: (i) what is the link between safety and travel time saving in M2PP? and (ii) can economic growth be achieved by ensuring safety in M2PP? ‘Improving road safety’ by advancing roads (Dominion Post, 2013a) is a discursive sign strengthened by the decision of the BOI aimed at building the Kapiti expressway to increase safety (Dominion Post, 2013b). The same discourse was advanced by a local MP, Nathan Guy, who presented safety as a justification for advancing the M2PP RONS (Dominion Post, 2010e) making it an important part of the National-led government’s current day road safety policies (TVNZ, 2016). The sign created by the safety argument was very strong in advancing the M2PP resulting in seizure of lands of many people, including the Maori novelist Patricia Grace (TVNZ, 2014a) later set-aside by the court (TVNZ, 2014b). It was observed that ‘safety issues remain a concern in M2PP’ (Expert 1) which have been advanced in terms of ‘the road safety

improvement potential that RONS would create in the long term’ (Expert 2). However, one expert perceived that M2PP ‘is never going to be safety project and will be revolving around travel time’ (Expert 3). An expert related safety with *fatal accidents on the SH1* (Expert 1), while another saw *economic stimulus* in it (Expert 2), despite the fact that M2PP ‘is not a safety project as such’ (Expert 3). Expert 2 used the combination of words ‘very strong’ that shows certainty about ‘economic stimulus’ but for safety he used the word ‘potential’ indicating uncertainty. Expert 3 created another discursive sign by arguing that ‘M2PP is not a safety project’. She created another sign suggesting that ‘travel time saving and security are directly related with the main storyline’.

This discursive conundrum was further explored to understand how it has penetrated into political belief systems. Some politicians believed that if safety is to be ensured, the National-led government needs to think about *alternate plans* (Politician 1) by providing ‘two different sides of the roads design’ (Politician 2). They also argued that ‘safety and travel time saving are only being evaluated [through BCR]’ (Politician 2) showing lack of seriousness on the part of the government (Politician 1). Politician 1’s viewpoint is another identification that also acts as a sign. This sign suggests building the Western Link Road if the objective of safety is to be really achieved. Politician 2 was also supportive of this sign because she also supported the Western Link Road.

The third dimension of safety was investigated from the Kapiti residents who created acts of interpretation similar to the ones under the sub-storyline travel time saving. One resident perceived M2PP to have ‘huge improvement on safety’ (Resident 3) by taking the public on board (Resident 2). One resident, however, disagreed with this perception questioning the rationale behind connecting safety with building of ‘the local road with a speed of 100 kilometres’ (Resident 1). It was argued that if RONS *promote safety* (Resident 2), then how it will impact the Kapiti population where the local people do not need high speed vehicles (Resident 1). On the alternate discourse

side, it was argued that M2PP ‘would not get the full benefits of safety’ unless all RONS are built (Resident 3) as against the argument that safety can be ensured by taking the public on board (Resident 2). Resident 2 presented the same identification as Expert 1 indicating how important safety is for the people for Kapiti. Resident 3 also agreed that safety is an issue, but he presented it in categorical semiotic style by comparing M2PP with SH1. One common theme from all interviews may be derived as follows: ‘Safety is a concern of the Kapiti people’.

Vehicle operating costs (VOC): The M2PP documents reveal VOC to be an important storyline in evaluating the conventional benefits of M2PP. The VOC benefits were advanced mainly through the NZTA’s Economic Evaluation Manual (EEM), based on higher BCR value, arguing that M2PP RONS will bring down the VOC costs. Various variants of this storyline may be grouped as non-base variants and base-variants (NZTA, 2013b). The non-based variants of VOC include running costs, road surface costs, speed change cycle costs, congestion costs and costs while at a stop. The base-variants constitute fuel costs, tyres costs, repairs and maintenance costs, oil costs and vehicle depreciation costs. These variants primarily concern most people including the trucking industry and, therefore, are prevalent in many documents as important issues for economic evaluation purposes (NZTA, 2013b; SAHA, 2010a).

Based on the methodological framework of EEM, the 2010 SAHA report also advanced the same storyline. Based on higher BCR, this report suggested higher BCR for RONS as compared with its 2009 version. This suggested a reduction in VOC through building RONS. The methodology adopted by EEM was supported by the 2010 SAHA report in advancing the idea of VOC saving by building RONS (p.21). Some earlier reports, however, had questioned the sanctity of the NZTA’s EEM methodology arguing that conventional benefits, being part of BCR, are dependent on the category of road users:

The use of petrol and diesel may be a poor proxy for the allocation of benefits if RONS users are not representative of all road users (Infometrics, 2009, p. 16).

High prices of fuel (NZ Herald, 2011; TV3, 2012b; TVNZ, 2013b) was used as a variant by the Minister of Transport who vowed to reduce fuel consumption by advancing roads (Dominion Post, 2013a) strengthening the discourse in favour of advancing the M2PP because fuel prices is a big concern of most people in terms of VOCs (Dominion Post, 2015). The trend of using small cars is also reflective of the importance of VOCs (TVNZ, 2014c) again strengthening the arguments in favour of advancing motorways (Dominion Post, 2013a) despite rise in fuel taxes levied by the National-led government to build RONS (TVNZ, 2013a). 'Uncertainties about fuel prices' (Resident 2) is one variant of VOC which is perceived as putting so many people in a 'struggle to get petrol in their cars' (Resident 1) as against the variant of building all RONS to achieve safety (Resident 3). The future 'fuel price rise' (Resident 1) and the perception that it 'might double in 10 years' (Resident 2) weakens the safety argument by building the M2PP. This suggests saving VOC is a priority of the Kapiti people but, to some, not at the cost of building M2PP. Some residents suggested that VOC can be saved just by improving the SH1 and not necessarily by building M2PP. The variant of future fuel prices and its impacts on the Kapiti community did have a counter discursive penetration into the political beliefs as well. It was argued that the 'transport sector is very reliant on vehicles which are powered by fossil fuels' (Politician 2) 'at the very time when we need to be reducing them' (Politician 1).

The analysis of documents and interviews reveal that saving VOC is a major storyline because it concerns most people in New Zealand. It has well been used in advancing the promotion of RONS in New Zealand particularly through technical documents such as the EEM. Some documents and interviews present an alternative discourse of the VOC issue suggesting that VOC saving is undoubtedly important but relating it with M2PP is questionable. Because of these issues, the basis of the advancement of

the VOC storyline gets diluted not because VOC saving is not important but because its connection with RONS in general and M2PP in particular is weak.

The second theme, **wider economic benefits**, is made-up of two sub-themes: *national benefits* and *regional benefits*. The M2PP documents reveal the economic justification for national benefits to make it the most prevalent storyline consisting mainly of a *rise in national income* (Infometrics, 2009, 2010), *value for money* (VFM) (Ministry of Transport, 2009a, 2012b) and *New Zealand as a first world country* (Campbell Live, 2012). The WEBs based on the rise in *Real Gross National Disposable Income* (RGNDI) were used to justify M2PP building in 2009 and 2010. The discourse was advanced by providing exact figures, for example, arguing that ‘we may interpret the 0.6% of RGNDI as being an estimate of the annual benefit of the RONS’ (Infometrics, 2010, p. 4). The same variant was put-forward by highlighting WEBs in bold style, for example:

Estimates of [WEBs of] national economic and productivity benefits indicate that the **potential exists for further additional benefits to the economy generated by the RoNS** over and above conventional transport economic benefits (SAHA, 2010b, p. 4) (bold as in the original text).

Although it was argued that ‘WEBs may be substantial, amounting to about \$1.4 billion per annum in 2020’ (SAHA, 2010b, p. 6), one Kapiti resident argued that the National-led government ‘did an evaluation of each of these seven [RONS] with several having BCR of less than 1’ (Resident 2). However, using WEBs as the justification, the M2PP project was advanced as an economic growth promoting project (ibid).

New Zealand as part of the first world is present as a storyline in several documents and media reports. The storyline was advanced both from political and technical fronts. The Minister of Transport, for example, argued that New Zealand ‘likes to be the part of the first world’ (Campbell Live, 2012) looking up to ‘Ireland and Scandinavian countries’ and some ‘Australian states’ (Expert 2). The argument was that since some developed countries have performed well in achieving economic

growth by building roads, New Zealand should also follow this practice to catch-up with the first world.

In this regard, the infrastructure development by some countries, such as Australia, the UK and Canada, was seen as a model for New Zealand to enhance economic growth and productivity (NZ Herald, 2009a, 2009c). The same argument was supported by the Don Brash's 2025 Taskforce's recommendations (NZ Herald, 2010c) later endorsed by the Prime Minister John Key (Dominion Post, 2012b). The recommendations of the taskforce and the infrastructure vision suggested by the NZCID strengthened the belief that New Zealand needs to catch-up with Australia and other first world countries by advancing roads infrastructure (NZ Herald, 2009a, 2009c).

The storyline was, however, rejected by some trade unionists, businessmen, researchers other stakeholders (NZ Herald, 2010a, 2010b, 2010c). It was noted that 'a whole economic and social environment is what leads to success, not just a few ideologically favoured aspects' (NZ Herald, 2010a) neglecting that New Zealand is a 'small trading nation, with a large current account deficit and low stocks of domestic capital' (NZ Herald, 2010c). Furthermore, most of the banks in New Zealand are 'Australian owned' (NZ Herald, 2010b). The storyline met stiff resistance both in the media and documents. A counter discursive storyline 'supposedly first world country' was floated arguing that the government will be 'wasting vast sums of money on road-building while ignoring all forms of public mass transit and efficient freight movement' (McDonald, 2012, p. 1). Some Kapiti residents also challenged the concept of *being part of the first world*, creating an alternative discourse of the storyline. It was argued that the Kapiti people do not need to 'catch-up with Australia' (Resident 2) on the premise that 'New Zealand does not have enough expressways' (Resident 1) as against the discourse on enhanced roads infrastructure (Resident 3). The Kapiti residents criticised the model countries arguing that 'these countries never delivered on the promises' (Resident 1) because 'improving

economic growth and productivity through infrastructure building' is not the only way out (Resident 2).

Rise in national income as a theme has been continuously present as a storyline, justifying the M2PP building, on the basis of concepts such as RGNGI and VFM. This storyline was advanced in three stages. Achieving 'better value for money' (Ministry of Transport, 2009a, p. 5) was later presented as 'the strength of the benefits realised from the investment in land transport' and was finally advanced as 'the greatest benefit' (Ministry of Transport, 2012b, p. 2) of the 'procurement of roads' (Ministry of Transport, 2012a, p. 11). It was argued that 'the GPS needs to place greater emphasis on economic efficiency' (Ministry of Transport, 2009a, p. 5) with a 'sharpened and broadened focus of value for money' (Ministry of Transport, 2012b, p. 2) so as to achieve 'better and smarter services and ways of operating' (Ministry of Transport, 2012a, p. 11). The 2025 Taskforce envisages a rise in national income by 'removing impediments to economic growth' and then 'relying on the market to produce growth' (NZ Herald, 2010c) by advancing roads infrastructure (NZ Herald, 2009a, 2009c). Rejecting the storyline 'rise in national income', the New Zealand Council of Trade Unions president Hellen Kelly argued:

During the nine years of the Employment Contracts Act, New Zealand's average wage rose only 7 per cent in real terms (by another measure the real wage actually fell) - while productivity rose 26 per cent. Employers used low wages to avoid productivity-enhancing investment (NZ Herald, 2010a).

She also argued that 'child poverty rose sharply and New Zealand experienced the steepest rise in inequality in the OECD' (ibid).

This storyline was further explored to understand how it forms political beliefs and how it is penetrated and perceived by the political parties. Several discursive tensions were observed in this regard. It was, for example, argued that the Minister of Transport is not clear about how to achieve better VFM (Politician 2), therefore, 'people are concerned and aware that the decision-making has been poor' (Politician 1). It was also argued that RONS are 'poor value for money' likely to be 'white

elephants’ in the future (Politician 1) because of non-clarity of the National-led government and the Transport Minister in relating VFM with M2PP (Politician 2).

The construction of these tensions in the structuring and restructuring of the textual signs empowered the local residents to take full cognizance of the originality of the object. To them, probably, the best way was to create further interpretations of the textual signs through advancing alternative discourses of the arguments for and against the textual signs supported by the National-led government and the opposition parties respectively. One such interpretation was to hold some non-governmental transport business groups responsible for the advancement of these textual signs possibly with a view to getting more interpretations from them:

From [the RTF] point of view every dollar should make some extra dollars profit ... they [want to] make some extra money by driving quicker through the district ... they think they are not asked to pay a disproportionate amount of money, they are not going to look at it negatively (Resident 1).

In addition to the earlier mentioned tensions, the power and legitimacy of the construction of textual signs in support of the object VFM was deconstructed by several interpretations of the opposition parties. In this regard, ‘poor decision-making’ was presented as a synonym for ‘poor value for money’ (Politician 1) thus destroying the whole premise of the ‘better VFM’ argument. The interpretation from one transport business group, for example, strengthened the textual sign created by the government and deconstructed the alternative discourse created by the opposition parties and Resident 1:

Some politicians talk about not putting the money into roads and putting the money in rail transport system ... but what they really going to say is that they are going to take money off taxes from big routes and spend somewhere else ... that is quite a big debate and somewhere other projects are not good in the benefit-cost analysis (Resident 3).

These interpretations indicate that the textual signs created in support of the object VFM are marred by controversies, tensions and alternative discourses. In the phenomenon of political cognition, it is partly because local values, traditions and

alternative informed interpretations have not provided enough room to the object VFM to get legitimised and formalised by the public and political parties. The themes ‘rise in national income’, ‘better VFM’, and ‘New Zealand as a first world country’ are, therefore, weak to justify the construction of M2PP. The phenomenon of the creation of textual signs could not accommodate those political values, traditions and ethos which could have, otherwise, strengthened these textual signs by diversified and informed interpretations.

Regional benefits emerged as a storyline in 2010 when they were estimated at additional 40 per cent of the conventional benefits of RONS (Richard Paling Consulting, 2010) and continued in most subsequent documents, arguing that RONS will contribute to economic growth and productivity (SAHA, 2010b). The same argument was advanced by the central government to justify the RONS and M2PP policy, the core focus of the 2012 GPS. The regional benefits are composed of two main variants: *agglomeration effect* and *employment effect*. **Agglomeration effect**, by building M2PP, emerged as a storyline in November 2009 with the approval of the Wellington Northern Corridor Detailed Business Case by the NZTA (NZTA, 2009c). The agglomeration benefits of M2PP were projected to be huge in several government documents in 2009, arguing the M2PP will ‘significantly improve connectivity between a number of regional economic hubs’ (NZTA, 2009e, p. 6). Building upon the findings of Maré and Graham (2009), *agglomeration effect* continued to hold its position as a storyline after 2009, justifying the M2PP RONS building, in several other documents. A huge estimate of ‘agglomeration benefits of \$25 million for 2016 and \$41 million for 2026’ was advanced which was projected to ‘increase to about \$37 million by 2026’ (Richard Paling Consulting, 2010, p. 44), while some experts suggested that ‘the effects are much more significant of that’ (Expert 2).

The storyline also remained prominent in the WNC Network Plan – an unpublished document – by including ‘the wider package of improvements needed to make the

Wellington Northern Corridor effective’. The M2PP documents reveal that *agglomeration effect* continued to be prevalent as a major WEBs justification, for example, on the premise that their ‘economic benefit is expected to be \$1.95b PV (over a 30 year evaluation period)’ (NZTA, 2013c, p. 6).

Employment effect was also projected as a major variant under the sub-theme *regional benefits* in several post-2009 government documents. Some documents suggested that by building WNC, the employment opportunities ‘will increase by up to 44,000 jobs’ (NZTA, 2009e, p. 6) alongside lifting productivity by growing businesses with high value jobs (NZ Herald, 2010c). A parallel discourse was constructed by arguing that if SH1 is improved then it ‘could directly generate approximately 650 new jobs over a 10 year period’ (ibid). *Employment effect* was fundamentally associated with the storyline *agglomeration effect* (Richard Paling Consulting, 2010, 2013). The Richard Paling reports portray the regional benefits of M2PP to be huge but with some scepticism, stating ‘that employment effects would take time to become realised’ (Richard Paling Consulting, 2010, p. 38). This storyline was advanced by a forecast that, if WNC (including M2PP) is constructed, employment would grow by ‘about 12 per cent between 2011 and 2031’ and ‘about 5 per cent between the forecast years of 2021 and 2031’ (Richard Paling Consulting, 2013). In contrast to these arguments, several counter discourses were presented by the Kapiti residents, politicians and experts during the interviews.

These storylines were, however, countered from several angles by informed interpretations raising counter-themes such as the relation between motorways and agglomeration, geography of a road, agglomeration as a WEB, and agglomeration in the particular context of M2PP. For example, it was argued that roads do not create agglomeration benefits, they rather ‘do exact opposite of agglomeration’ (Politician 2) possibly because ‘the links between transport infrastructure and agglomeration are not proven’ (Resident 2). This argument was furthered when Politician 2 said that ‘the extreme irony is that the NZTA is arguing that RONS will create agglomeration

benefits' because 'firms in the cities tend to be more productive' (Resident 2) as compared to the suburban areas. This argument goes in favour of non-expansion of roads based on the geography of firms. The geography argument was further strengthened by Politician 2 who related agglomeration not only with geography but also with 'city-walling, walking, [and] cycling'. The very concept of agglomeration as a WEB of roads was also challenged on the ground that it is hard to prove that roads can actually promote employment benefits given that a firm's location and its associated income generation play a pivotal role in defining the dynamics of agglomeration effect. Politician 2, as an act of telic completion, gave the reference of 'Dr Graham Currie at Monash' stating that he said 'something opposite' as against the argument linking roads with positive agglomeration benefits.

These informed interpretations gave rise to a counter-theme that *the relation between roads and agglomeration and employment effects is not proven*. It makes the government's case of *agglomeration and employment rise*, by building M2PP RONS, weak. Some critics have argued that RONS are so different in nature and geography that it is hard to expect huge agglomeration and employment benefits from them (Pickford, 2011a).

In the backdrop of various discourses and alternative discourses on the inclusion of WEBs as a main justification to build RONS, the 2009 and 2010 SAHA reports require attention as to how WEBs were incorporated in them. SAHA (2009, p. 10) indicates three textual signs: *base*, *accelerated* and *alternative* with transformational meaning. *Base program* refers to slower implementation of RONS whereas *accelerated program* involves quick construction of RONS (Pickford, 2011a, p. 2). The *alternative program* category refers to sensitivity testing that generally denotes the midway point between the base and accelerated programs (SAHA, 2009, p. 31).

Written in bold, the words 'base', 'accelerated' and 'alternative' carry the meanings of signs suggesting categorical transformation of three different benefit-cost scenarios. In terms of categorical transformation, the 2009 SAHA report (SAHA,

2009) indicates that the main objects are benefits and costs because they attain significance due to comparison among three different scenarios. However, when transformational meanings of objects are similar, it is hard to differentiate the outcome of such comparison. SAHA (2009, p. 33) indicates that the SAHA derived BCR for the WNC project, including M2PP, is only 0.6. In SAHA (2009, p. 10), all three scenarios have a BCR greater than 1 and may be treated as 'economically acceptable'. However there are four main transformational linkages in SAHA (2009, p. 9), written in bold, that tell the complete story: (i) the WEBs are of considerable scale which means greater variability, (ii) WEBs were estimated by using new techniques which may not be good for a multi-billion dollar RONS project, (iii) there is no interdependency (synergy) benefits associated with the portfolio of project, (iv) greater geographical dispersion among the individual RONS projects, and (v) a natural go-ahead for the 'base program' because it has the highest BCR.

The words chosen by SAHA (2009) contain signs that represent the objects without categorically opposing building RONS as an accelerated project. The data indicates the presence of a comparative approach in the SAHA report which opposes accelerating RONS. On the objective side, the concept 'build all RONS now' had a lesser BCR which, to the opposition Labour Party, was balanced with a subjective approach of 'Strategic Fit' (Politician 1) while the Green Party argued 'they are not the highest value projects that we could be investing in' (Politician 2). In addition, the 2009 SAHA report also opposed the immediate construction of RONS but in a rhetorical semiotic style. According to Politician 1, a similar rhetoric was possibly adopted by the National-led government in justifying the RONS building. The conundrum caused by rhetorical semiosis is quite visible in the two SAHA reports arguably because of immense government pressure to build RONS. Lack of data and lack of project interdependencies have been reported in the following two observations of the SAHA report:

Due to lack of detail and quality in data, several adjustments had to be made to provide a more transparent approach in assessing the economic outcomes of the integrated RONS (SAHA, 2009, pp. 28-29).

... RONS do not have any tangible project interdependencies, primarily due to significant geographical discrepancies between each of the RONS (ibid).

These two observations may be compared with the Burke's (1969) concept of *identification* which is an effective strategy for achieving a rhetorical success. SAHA (2009) contains the identification telling that the report will not be 'transparent' if there is a 'lack of detail' and 'lack of data quality' in assessing the economic outcomes of the RONS portfolio. The question is how can 'economic outcomes' be discursively correlated with 'lack of detail' and 'lack of data quality'. Let us consider a scenario presented by Burke (1969, p. 20):

A is not identified with his colleague B. But insofar as their interests are joined, A is identified with B or he may identify himself with B or he may identify himself with B even when their interests are not joined, if he assumes that they are, or is persuaded to believe so.

Comparing this scenario with the above SAHA statements, it may be argued that 'lack of detail' and 'lack of quality data' are related with 'transparency (of RONS)'. If 'significant geographical discrepancies', for example, are compromised that means this transparency is compromised which reduces the benefits and escalates costs. This also infers that 'project interdependencies' are an important identification for achieving economic outcomes. Through a categorical transformation, the 2009 SAHA report used two signs, *base case* and *accelerated case*, to oppose the immediate construction of RONS. However these recommendations could not persuade the government to take up the base program. The government never published this 2009 version of the SAHA report but sent it back for reworking which later took the form of the July 2010 version currently available on the NZTA website (Pickford, 2011b). These moves were monitored by some of the Kapiti residents:

NZTA gave them [SAHA] data to calculate the BCR and this is what they did for the seven RONS ... there is story behind that ... they [SAHA] came up with relatively low BCRs ... they [SAHA] put it in implied language ... In fact this [2009] report was never

published and not even went to NZTA Board when they came to make decision about it (Resident 2).

The July 2010 SAHA report (SAHA, 2010b) emphasized accelerating RONS despite its rhetorical semiotic disapproval in the 2009 report. One change is quite significant in the 2010 report. The earlier signs *base* and *accelerated* were replaced by the signs *compliant* and *aspirational* respectively, thus replacing *base program* and *accelerated program* with *compliant program* and *aspirational program* respectively. This is a ‘styling of the self’ type transformational practice that generates very different surface forms for the RONS policy as compared to the one generated by the 2009 SAHA report. This suggests that the main storyline, “M2PP will generate economic growth and productivity”, was stylized by replacing the signs of ‘base’ and ‘accelerated’ with the signs of ‘compliant’ and ‘aspirational’. From the definition of *stylistics*, this replacement of signs is meant to make the 2010 SAHA report more recognizable and more discrete in a subtle and silent way.

An analysis of the two SAHA reports indicates several changes in the 2010 SAHA report with regards to costs and benefits. For example, there is no option for an ‘alternative program’, the conventional benefits were increased, and the WEBs estimated by CGE were also increased without a satisfactory justification (SAHA, 2010b, p. 26). Similarly the individual projects’ BCRs are not given. This suggests there is no parallel information similar to SAHA (2009, p. 33) and the BCRs for both compliant and aspirational programs are the same at 1.8. In addition, the 2010 report presents three significant recommendations justifying the main storyline (SAHA, 2010b, p. 4):

- 1. RONS portfolio generates substantial economic benefits**
- 2. Potential exists for further additional benefits to the economy generated by the RONS**
- 3. Indeed if funds are available to invest sooner, economic benefits generated by the RONS, both conventional and wider, can be realized sooner** (bold as in the original text)

These three statements negate the recommendations of the 2009 SAHA report. All other conclusions were written in a normal style but these three were written in bold to draw attention. One dimension of ‘styling of the self’ is that one takes the signs available to him/her and then seeks to assemble them to indicate a selective variation of the self-individuated from other selves (Perinbanayagam, 2010, p. 74). The above three statements seem to represent this ‘selective variation’ in which the justifications of achieving economic growth and productivity was individuated from the 2009 SAHA report. In terms of benefits, it weakens the case of M2PP and RONS as economic growth and productivity promoting projects.

6.4. Conclusion

In the four phases of the M2PP decision-making process, the participation of the stakeholders has been restricted. In particular, at the first stage of initiation, the stakeholders were not consulted. The “think big” political philosophy has led the National-led government to initiate large infrastructure projects with a view to catching-up with the first world through massive advancement of roads. The ground realities are, however different. The non-participation of stakeholders at the strategic level decision-making on RONS has created a power vacuum in which the affected stakeholders have no say. Although, the legal process of stakeholders’ involvement is quite strong, the meaningful public participation at the strategic level is missing. Several private construction companies were part of the M2PP Alliance along with NZTA and KCDC. They have their own business interests. Economic interests of the Alliance members further strengthen the National-led government’s political ambition to build RONS.

The National-led government needed to ensure meaningful public participation with a view to making practical and pragmatic decisions on M2PP. The changes in the RMA 1991 have restrained public participation which has weakened an effective decision-making process. These changes have, however, increased the government’s power to accelerate RONS with greater speed at the national, regional and project

levels. Under the legal framework, NZTA is a powerful organisation. The analysis also suggests that the RONS were announced in the conditions of uncertainty and without reliable data. The main storyline “M2PP will generate economic growth and productivity” is based on the NZ government’s aspiration to be at par with the first world countries in roads development. The analysis indicates that the benefits of M2PP are less than the costs. The New Zealand government, however, continues with this project as a part of the RONS portfolio. There is a need to examine the RONS judgment by a robust evaluation of the data and evidence. Due to a reduced level of stakeholders’ participation, the government is defining the M2PP context by itself in which the main justification is achieving economic growth and productivity. It is, therefore, imperative that the stakeholders’ varying perceptions are given importance beyond the narrow confines of prevailing laws.

Travel time saving as a determinant of economic growth and productivity is an unsettled issue. However, the government associates it with economic growth and productivity in several published documents mainly on the basis of quantitative techniques. A direct relation between safety and economic growth is hard to establish with the exception of the notion of WEBs in which almost everything can be added. The argument of achieving better value for money by building the M2PP is also weak because of the lack of meaningful participation of stakeholders. The National-led government must incorporate practical issues which could actually help increase economic growth and productivity by advancing roads.

CHAPTER SEVEN

Lahore Ring Road – Southern Loop: a policy analysis

There is a consensus both inside and outside the country that most systems, economic as well as political, are dysfunctional. But as economists now emphasize, an economy not supported by an appropriate institutional framework cannot expect to have a reasonable rate of economic growth ... There are many things wrong with official thinking about the state of the Pakistani economy (Burki, 2012).

7.1. Introduction

This chapter presents data about Lahore Ring Road – Southern Loop (LRR-SL) to address the research question: “how does current land transport policy justify achieving economic growth”? The chapter critically reviews the transport policy and decision-making process at the federal, provincial and local levels in Pakistan followed by a policy analysis of the LRR-SL case study.

The chapter first provides the policy analysis based on Pakistan’s Visions 2030/2025 and the new Economic Growth Framework (FEG) followed by key policy documents at the provincial level [such as Chief Minister’s Vision 2020, Punjab Growth Strategy and Medium Term Development Framework (MTDF)], and local level (such as long term district development plan and the short term district development plans). This part analyses how different policy documents constitute various federal, provincial and local level transport policy documents. The chapter then connects different policy documents with various justifications advanced for promoting roads network in Pakistan.

The Pakistan Muslim League (Nawaz) [PML (N)]-led government aspires to achieve economic growth and prosperity through advancement of urban infrastructure especially roads. The government has advanced several policy justifications on economic, technological, political and aesthetic fronts in relating urban roads infrastructure with prosperity and economic growth (LRRRA, 2012g; PMU & NESPAK, 2008b). The justifications have been advanced in an incoherent manner through transport policy frameworks (to be discussed later). These justifications have,

however, been perceived differently by the government, the experts, the politicians and the local people affected by the construction of the Lahore Ring Road (LRR) resulting in a wide perceptions gap. By taking contextual urban planning challenges on board, this chapter provides an account of the inadequacies of Pakistan's transport policy in relating urban roads infrastructure with achieving economic growth. It is argued that the perceptions gap among the government, the experts and the local people is a result of weak justifications, which are not carefully laid out, in relating roads investment with economic growth and prosperity.

7.2. Land transport policy and planning in Pakistan

The land transport policy and planning in Pakistan can be divided into federal, provincial and city district levels as shown in Figure 15. According to Groote, de Jonge, Dekker, and de Vries (1989, p. 95), planning in Pakistan is linked with development via a chain of human decisions lacking necessary actions. Twenty seven years on, since this observation was made, the same trend continues in which urban projects, such as roads, are initiated by the top policymakers on the basis of economic, technological, political, and aesthetic justifications linked with development. The justifications are, then, devolved into the legal framework which takes the form of strategic level documents in Pakistan as shown in Figure 15. Therefore, as far as roads planning is concerned, Pakistan's government strongly links economic growth with the efficiency of the transport system (Sánchez-Triana, Afzal, Biller, & Malik, 2013, p. 23). A senior official of the concerned ministry, dealing with economic affairs of the country, endorsed this policy approach stating that 'roads create economic activity for the entire country' (Expert 15). Most road projects in Pakistan, inter-city or intra-city, therefore, inherently carry economic justifications promoted to validate their policy ambitions.

Commenting on the background of these justifications, then Deputy Chairman Planning Commission, however, agreed that '[Pakistan] does not have a policy framework' to validate these justifications (Expert 3). This suggests that economic

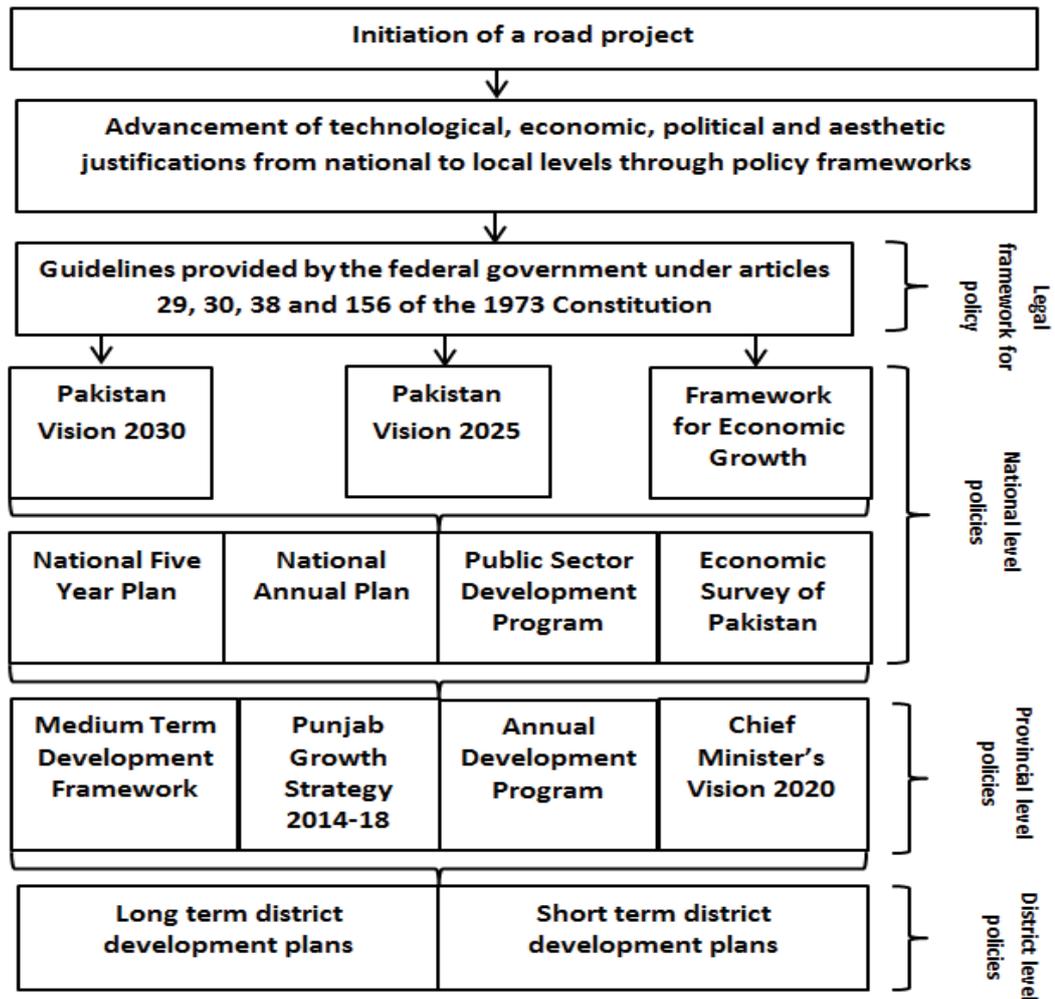


Figure 15: The land transport policy framework at federal, provincial and district levels (the author based on document analysis).

justifications advanced to build roads do not have a coherent framework to follow. This dimension was also highlighted by Pakistani media reporting that the legal transport policy framework in Pakistan is haphazard and scattered constituting no less than seventy urban matters related laws in the capital territory alone (Dawn, 2015). These laws do not have the capacity to effectively meet the urban challenges involving multiple contextual dimensions (ibid). In this regard, a report of the Task Force on Urban Development highlights the inability of the existing legal framework in handling various economic, social, environmental and spatial urban externalities:

... existing laws, by-laws, zoning regulations and policies impede an efficient and economical use of land. Principles of healthy and safe environment, social cohesiveness and pleasing aesthetics are often violated. These laws and regulations

are mostly anti-street, anti-pedestrian, anti-mixed land use, anti-high densities and anti-public space. They do not provide sufficient space for amenities such as schools, health facilities, parks and playgrounds (Planning Commission, 2011e, p. 10).

With this background, the working of the federal government's policy and planning departments needs attention in which the Planning Commission (PC), the Ministry of Communication (MOC) and the National Highway Authority (NHA) play a pivotal role (Expert 17). The PC is Pakistan's principal policy advisor under the chairmanship of the Prime Minister (Government of Pakistan, 1973). It advises the federal and provincial governments on economic policies and problems alongside preparing national plans, annual plans and planning, evaluating and implementing various programmes/projects at the national/provincial levels (Planning Commission, 2013c). All the policy and planning work done by the federal government is governed under a set of rules – called the 1973 Rules of Business (Government of Pakistan, 1973).

The PC performs its functions with an administrative top-down approach with the concerned ministries (Planning Commission, 2015a). The federal level transport policy and planning related matters are dealt by the Ministry of Communications (MOC). MOC is the federal government's principal advisor on transport policymaking (Ministry of Communications, 2015). It is the 'central policymaking and administrative authority on the communications and transport sector in the country' (ibid). However, because of the top-down policymaking approach of the PC, transport policymaking does not appear to be its main objective as reflected in the ministry's mission statement:

'Achieving national cohesion and integration through development of sustainable communication infrastructure for socio-economic uplift of the country by providing enabling environment to facilitate movement of people, goods and services in minimum time and cost' (ibid).

The National Highway Authority (NHA) is a subsidiary organisation of the MOC (National Highways Authority, 2015). It is responsible to 'plan, promote, organize and implement programs for construction, development, operation, repairs and

maintenance of National Highways/ Motorways and Strategic Roads’ (ibid). These three main organisations initiate and implement transport policy in liaison with other government departments.

The starting point of transport policy in Pakistan is the government’s long term ambition about the future called ‘visions’. The government’s vision is framed in accordance with the ‘principles of policymaking’ under Article 29 of the 1973 constitution underlining the importance of ‘availability of resources’ in the country (Government of Pakistan, 2004). The government’s long term perception and the justifications advanced also gain power from Article 38 of the Constitution, emphasising ‘economic and social wellbeing of the people’ (ibid). The coordination between the federation and provinces is governed by a national level body called National Economic Council (NEC). The NEC is constituted by the President, under Article 156 of the Constitution, comprising of the Prime Minister, the provincial Chief Ministers and four other members nominated by the Prime Minister (ibid). However, policymaking has witnessed tensions between the central government and the provinces over the distribution of political power since Pakistan’s inception in 1947 (Cookman, 2010). In 2010, the federal government devolved some of its policymaking power to the provinces through an amendment in the constitution (commonly known as 18th amendment) with the belief that it will make the provincial governments more efficient (Furqan, 2012). ‘The 18th amendment enacts more than 100 changes, both large and small to Pakistan’s constitution’ (Cookman, 2010). However, communications including roads, continued to be a federal subject before and after the 18th Amendment:

[After the 18th Amendment], the federal government will control only five subjects - finance, defence, foreign affairs, communications and revenue (Dawn, 2011b).

Therefore, roads in Pakistan are developed by both the federal and provincial governments. At the federal level NHA and MOC are responsible for roads planning and construction (National Highways Authority, 2015). At the provincial level, the provinces are also launching their own transport projects, by establishing separate authorities, such as the Lahore Ring Road Authority and the Punjab Metro-bus

Authority (Government of the Punjab, 2011a, 2012a). However, most of the economic, technological, political and aesthetic justifications emanate out of the federal government's visions. For example, Pakistan's Vision 2030 for the transport sector is the establishment of an efficient and well integrated system that facilitates the development of a competitive economy and reduced poverty, while ensuring safety in mobility, accessibility and effective connectivity (Economic Survey of Pakistan, 2012, p. 119). The Visions are set at the federal government level and all four provinces and territories incorporate them in their transport policies and strategies as shown by Figure 15. Various international studies suggest the need for a separate ministry of transportation (Asian Development Bank, 2003; JICA, 1995, 2006; World Bank, 1999) without which all such visions seem to be a dubious practice.

7.2.1. Transport policy and planning at the federal level

The building up of policy context at the federal level is determined by three documents defining the strategic context of Pakistan's transport policy based on the government's long term perceptions of planning: Vision 2030, Vision 2025, and the FEG. The Vision 2030, FEG and Vision 2025 were perceived and released by three different federal governments.

The Vision 2030 was prepared by the military government of General Pervez Musharraf in 2007 providing a national vision for Pakistan (Government of Pakistan, 2007; Planning Commission, 2006b). Its purpose was to 'to attain macroeconomic stability and implement wide-ranging reforms which are impacting every aspect of [the] state, society and economy' (Government of Pakistan, 2007, p. vii). In a meeting held on February 28, 2006, the NEC approved an Approach Paper called 'Strategic Directions to Achieve Vision 2030' which finally took the shape of Vision 2030 document (Government of Pakistan, 2007, p. xi; Planning Commission, 2006b).

Another national level vision, called the FEG, was prepared by the Pakistan People's Party (PPP)-led government in 2011 (Planning Commission, 2011b, 2011c, 2012b).

'The strategy [was] based on sustained reform that builds efficient and knowledgeable governance structures, and markets in desirable, attractive and well-connected locations' (Planning Commission, 2011c, p. 10). An international conference was also held to discuss this national vision (Planning Commission, 2011b).

The national vision prepared by the PML (N)-led government in 2014 is called the Vision 2025 (Government of Pakistan, 2013; Planning Commission, 2014b). The document observed that 'new global trends relating to economic, physical, environmental, and social developments present a mix of challenges and opportunities ... It is important to understand this context and its implications for the realization of Pakistan Vision 2025' (Planning Commission, 2014b, p. 12). On November 22, 2013, a national conference was held and its recommendations took the shape of Vision 2025 (Government of Pakistan, 2013).

The PML (N)-led government introduced a policy theme *modernizing transportation infrastructure and greater regional connectivity* highlighting the importance of connection between roads, trade and economic growth (Planning Commission, 2014a, p. 89). The reason for this particular focus was justified by a senior official of the Economic Affairs Division arguing that 'roads expansion brings about an economic boom on regional level as well' (Expert 15). By region, he meant the cluster of cities usually referred to as 'Division'. For instance Lahore Region consists of the cities of Lahore, Sheikhpura, Nankana Sahib and Kasur. The international donor agencies have also noted the government's policy focus in this regard:

The Government of Pakistan's Vision 2030 sees road infrastructure improvement as a key strategy for accelerating trade and economic growth (Asian Development Bank, 2009, p. 4).

The government's long term perception behind roads infrastructure expansion, therefore, makes trade part of economic and technological justifications as reflected by the notion of 'cities as engines of economic growth' in Vision 2030, FEG and Vision 2025. Furthermore, Pakistan aspires to maximize the opportunities

presented by acting as a regional trade transit hub and expanding trade with regional markets and neighbouring countries (Government of Pakistan, 2008, 2012). The development of the China-Pakistan Economic Corridor (PCEC) is part of these aspirations (Planning Commission, 2014a, p. 88).

For the federal government, therefore, roads are a determinant of regional trade which in turn is treated as a determinant of economic growth and prosperity. Another important dimension of this perception is based on various international trade and transport agreements on regional trade signed by the government (Ministry of Commerce, 2010a, 2010b, 2010c). In Figure 15, the first strategic document Vision 2030 is an optimistic forward-looking economic growth strategy that terms Pakistan a '24 hour/7 day society' with a greater focus on urbanisation and infrastructure (Planning Commission, 2006b, p. 36). The basis of the policy perception is reflective from Vision 2030 envisaging a:

developed, industrialized, just and prosperous Pakistan through rapid and sustainable development in a resource constrained economy by deploying knowledge inputs (Government of Pakistan, 2007; Planning Commission, 2005b, p. 1).

The government's long term policy perceptions have been framed in the context of developed countries forming the basis of economic and technological justifications in the Vision 2030:

the level of urbanisation and the level of development are closely related, with urbanisation levels as high as 80% in the most developed countries (Planning Commission, 2006b, p. 36).

The same context was used to advance the economic arguments guiding urban policies for several cities of Pakistan including Lahore:

It is reasonable to expect that some of the major cities of Pakistan such as Karachi, Lahore, Hyderabad, Peshawar, Faisalabad and Quetta will have evolved into world class cities, with major contributions to national growth and productivity, attracting visitors and immigrants for education, work and leisure (ibid, p.37).

The policies are pursued through four main instruments of national planning (Ahmed, 2010): perspective plan (10-25 years), midterm plan (4-7 years), rolling

plan (3 years), and annual plan (1 year). Strategically, Vision 2030 symbolizes the broad development strategy to be pursued by Pakistan under a long term perspective plan for the next twenty five years (Planning Commission, 2006b, p. iv).

The FEG is another federal level policy document defining the strategic context of Pakistan's transport policy on the basis of economic and technological arguments. Based on these arguments, the federal government seeks to achieve the objectives of the FEG by:

improving productivity and innovation, creating vibrant competitive markets, and making creative cities (Planning Commission, 2012b, 2013b).

In order to achieve these objectives, the Planning Commission identified seven thematic areas that need improvements. These themes reflect the federal government's economic and technological aspirations:

(i) productivity, (ii) innovation, (iii) governance, (iv) competitive markets, (v) urban management, (vi) youth engagement, and (vii) connectivity (ibid).

'Connectivity as a platform for economic development' is a theme reflecting economic justification and an important dimension of the strategic context of the transport policymaking (Planning Commission, 2011d, p. 5). The FEG treats connectivity as a pre-requisite for economic growth (Planning Commission, 2011c, p. 53). It justifies roads investment on economic and technological grounds:

Superior logistics performance is strongly associated with trade expansion, export diversification, ability to attract foreign direct investment and economic growth (Planning Commission, 2011c, p. 79).

With the change of federal government in 2013, the new PML (N)-led government came up with its own political perception of Pakistan's long term future - called Vision 2025 – claiming greater focus on 'implementation of plans'. Historically, the PC has a tradition of developing plans with a lesser focus on implementation indicating huge perceptions gap between 'what is perceived' and 'what is actually done at the implementation level' at the federal level (Planning Commission, 2014b). In this regard, the policy trend was noted by the President of Pakistan who termed the Vision 2025 'an implementation strategy' for the country:

The Planning Commission has clearly deviated from the past tradition of just preparing a plan without worrying about the implementation. The Vision instead encompasses a roadmap and an implementation strategy for Pakistan in the next one decade or so in their document Pakistan Vision 2025 (ibid, p.iv).

The Vision 2025 presents following seven themes – called ‘pillars’: (1) modernising transport infrastructure and greater regional connectivity, (2) people first, (3) inclusive growth, (4) governance, (5) water energy food, (6) private sector, and (7) knowledge economy (Planning Commission, 2014b). It is full of economic justifications for promoting roads infrastructure in Pakistan, for example:

Development of modern transportation infrastructure plays a pivotal role in economic development and attracting investments. Pakistan Vision 2025 seeks to establish an efficient and integrated transportation system that will facilitate the development of a competitive economy (ibid, p.86).

Based on various economic and technological justifications, Pakistan’s federal transport policy strongly supports building new roads. The Vision 2030, FEG and Vision 2025 provide the policy and planning basis for four national level documents: the national five year plan, the national annual plan, the public sector development program (PSDP) and the Economic Survey of Pakistan (ESP¹⁹). A five year plan provides national objectives to be achieved in next five years which includes, but is not limited to, roads building, policymaking and planning:

A five year plan is a general statement of objectives and targets to the economy as a whole and its various component sectors ... It is not an authorising document in the sense that it does not authorise expenditure to the relevant operating agencies. It provides a broad framework for formulation of the plan (Planning Commission, 2013a).

It was observed that the 1943 Nagpur Plan (Government of India, 1943), suggesting ‘the construction of 3.32 lakh²⁰ kilometre roads across India’, was blindly followed as ‘a model document’ in Pakistan’s first Five Year plan (Government of Pakistan, 1955, p. 503). The second plan treated it as ‘an index and a prerequisite of economic growth’ (Government of Pakistan, 1960, p. 277) while the third plan further strengthened the perception that ‘communications system is a necessary

¹⁹ It is an annual performance report presented to the parliament and the general public by the Ministry of Finance (Express Tribune, 2016).

²⁰ 1 lakh=100,000

condition for rapid economic growth' (Government of Pakistan, 1965, p. 313). The same perception was further advanced in the fifth and sixth plans (as there was no fourth plan) expressing a strong desirability to expand the roads network (Government of Pakistan, 1977, p. 391; 1978, p. 254). The tradition of 'just preparing the plan' was again followed in the seventh and eighth plans on the premise that roads need to be expanded for meeting economic development demands (Government of Pakistan, 1988, p. 219; 1993, p. 263). The ninth plan treated roads as having 'direct and indirect linkages with all sectors of the economy' (Government of Pakistan, 2005, p. 1). A similar approach was followed in the tenth and eleventh plans in which roads infrastructure was strongly linked with economic growth (Business Recorder, 2015; Government of Pakistan, 2010, p. 303; 2013). This casual and haphazard policy approach is reflected in the following observation by the Prime Minister's office, on the draft eleventh five year plan, as published in the national media:

The contradictory projections for the next three years should have been settled before the bulky papers were brought before the country's highest decision-making forum. But the usual lack of coordination among various arms of the government has always been one of the key challenges facing Pakistan (Kiani, 2015).

The long term perceptions of the Nagpur Plan gradually took the form of an informal policy belief system assuming that roads bring economic growth and prosperity. This is possibly because of strong planning focus of the PC. In this regard, a planning academic disagreed with the government's perceptions arguing:

Our transport approach is very much focussed on road transport ... you know road transport has its own limitations ... we must have some mixed use of alternatives so the issues of one strategy can be resolved by the other ... (Expert 2).

Some experts from the PC and media also disagreed with the government's long term perceptions arguing that:

Almost all five-year plans prepared during political or military regimes were shelved in the country's history after regime change and none of them succeeded in getting the desired results, so there is a need to look at strategies of other regional economies that are also facing challenges such as security and governance

difficulties, says the New Growth Framework of the Planning Commission (Haider, 2011).

Annual plans are primarily meant at implementing the Five Year Plans. It was observed that, although, Pakistan's annual plans support building new roads at the federal level, they do not seem to provide a policy direction for the LRR (Planning Commission, 2005a, 2006a, 2007, 2008, 2009, 2010a, 2011a, 2012a). The 2012 annual plan, however, mentions the LRR in one simple sentence:

One major initiative is for "Construction of Lahore Ring Road (Southern Loop) on BOT mode" (Planning Commission, 2012a, p. 239).

Based on technological justifications, the 2012 annual plan divides the transport and logistics sector into two parts: physical²¹ infrastructure and soft²² infrastructure (Planning Commission, 2012a, p. 229).

The PSDP is part of the National Development Program (NDP) approved by the National Economic Council [NEC] (Planning Commission, 2015b). PSDP usually has two main components for allocation of funds: federal PSDP and provincial Annual Development Programmes (ADPs) (Planning Commission, 2014c). PSDP, therefore, funds the projects both at national and provincial levels. At the provincial level, the ADP may provide funds for projects such as the LRR. For example, the 2014-15 PSDP provides funds for the projects such as Lahore Eastern Bypass and Multan Ring Road. The government claims that 'the federal PSDP 2014-15 has made a beginning in transforming its structure, composition and content to meet the objectives of Pakistan Vision 2025 and the strategic framework of the 11th Five Year Plan' (ibid, p.1).

The Ministry of Finance issues an annual economic progress report, called the Economic Survey. The Economic Surveys 2014-15 and 2015-16 envision a modern transport infrastructure in the country by the year 2025 on economic and technological grounds:

²¹ It refers to rails, roads, air and water transport

²² It covers activities such as packaging, delivery, storage and trade logistics and facilitation

Pakistan Vision 2025, assigns great emphasis to modernizing transport infrastructure to ensure economy in transportation cost, safety in mobility, effective connectivity between rural areas and markets/urban centres ... (Economic Survey of Pakistan, 2015, p. 213).

In this regard, two interviewees challenged the economic and technological justifications arguing that Pakistan does not have a formal transport policy framework:

I think the Government of Pakistan does not have an economic policy framework that could systematically relate federal roads planning [to guide] provincial policies (Expert 15).

Nobody can be against roads but the question is how roads are being built. All over the world, trains are an efficient mode of communications... off-hand I can't see any framework [in Pakistan] ... roads may be divided into inter-city roads, connectivity roads and so on. We can put all this in some network framework (Expert 3).

However, in 1990s, the federal government assigned the task of preparing a national transport policy to National Transport Research Centre (NTRC) (Imran, 2010, pp. 87-88). Accordingly, 'a draft document 'National Transport Policy' was published in 1991 and 1992' (ibid). The Chairman NTRC, while referring to the latest version of the national transport policy, stated:

We have already prepared draft transport policy document which will soon be officially notified. We have been working very hard on it for so many years (Expert 16).

Some media reports also challenge the justifications advanced by the government arguing that Pakistan never had a transport policy:

Has our national transport policy led to sustained growth in the infrastructure sector or is it the other way around that the policy has evolved through our experiences with infrastructure projects? Unfortunately, we cannot tell because Pakistan never had a transport policy (Mahmud, 2015).

Some international organisations suggest bypasses as a quick solution for Pakistan transport problems. For example, a transport study conducted in 2006 by Japan International Cooperation Agency (JICA), called Pakistan Transport Plan Study (PTPS), views urban bypasses as an essential need of Pakistani cities and

recommends building road spaces in proportion to the urban communities growth (JICA, 2006, p. 7/15). The purpose of this study was to prepare a comprehensive transport plan for the country (ibid). However, an expert questioned the logic of expanding so many bypasses:

Traditionally we have built so many bypasses around our cities which are very costly. With proper policy framework and planning we could have availed cheaper options. I would just say we need to prioritise given options based on our needs rather than following external models (Expert 17).

PTPS terms LRR as 'Lahore Strategic Peripheral Route' and lists it as a priority project for about next 20 years (JICA, 2006, p. 4). PSDP, as mentioned earlier, is the main instrument in providing budgetary funds for various development projects and programmes (Planning Commission, 2013d). Apart from national five year plans and annual plans, NTP/PTPS also guide PSDP for funds allocation. Historically, there is a lack of coordination between the Ministry of Finance and Planning Commission for approval of PSDP funds [see, for example, Ishrat (1999)]. The coordination gap among various government departments is reflective of institutional hurdles in the way of a focused and serious policymaking and planning:

A deeply frustrated and candid Deputy Chairman of the Planning Commission, Dr Nadeem Ul Haq has admitted that it was frustrating three years for him to remain in his existing office as these years were spent with useless battles, petty intrigues, limited serious discussion and an unfocused policy process (Haider, 2013).

The unfocused policy process was articulated by a JICA official as:

Roads cost escalations in Pakistan are mainly due to lack of coordination among government departments and inherent corruption. Because of these factors, roads projects are influenced by the political and bureaucratic gurus. This ultimately delays the project (Expert 19).

The administration of the transport sector, therefore, presents a scattered and haphazard transport scenario involving four federal ministries (dealing with various modes of transport: air, railways, ports and roads), four provincial governments and seven autonomous authorities (JICA, 2006, pp. 6-19). At the provincial level, Communication and Works (C&W) departments are responsible for the provincial roads network, while City District Government and development authorities [such

as Lahore Development Authority (LDA)] are responsible for urban roads. The above review finds that there is a weak guidance at the federal level to devise policy framework at provincial and local levels.

7.2.2. Transport policy and planning at the provincial level

Based on the policy guidelines provided by the federal level policy documents, four main documents constitute the provincial level transport policy in the Punjab province: the Chief Minister’s (CM’s) Vision 2020, Medium Term Development Framework (MTDF), Punjab Growth Strategy (PGS) and the ADP. Three of them define the strategic context of the Punjab transport policy as shown in Figure 16.

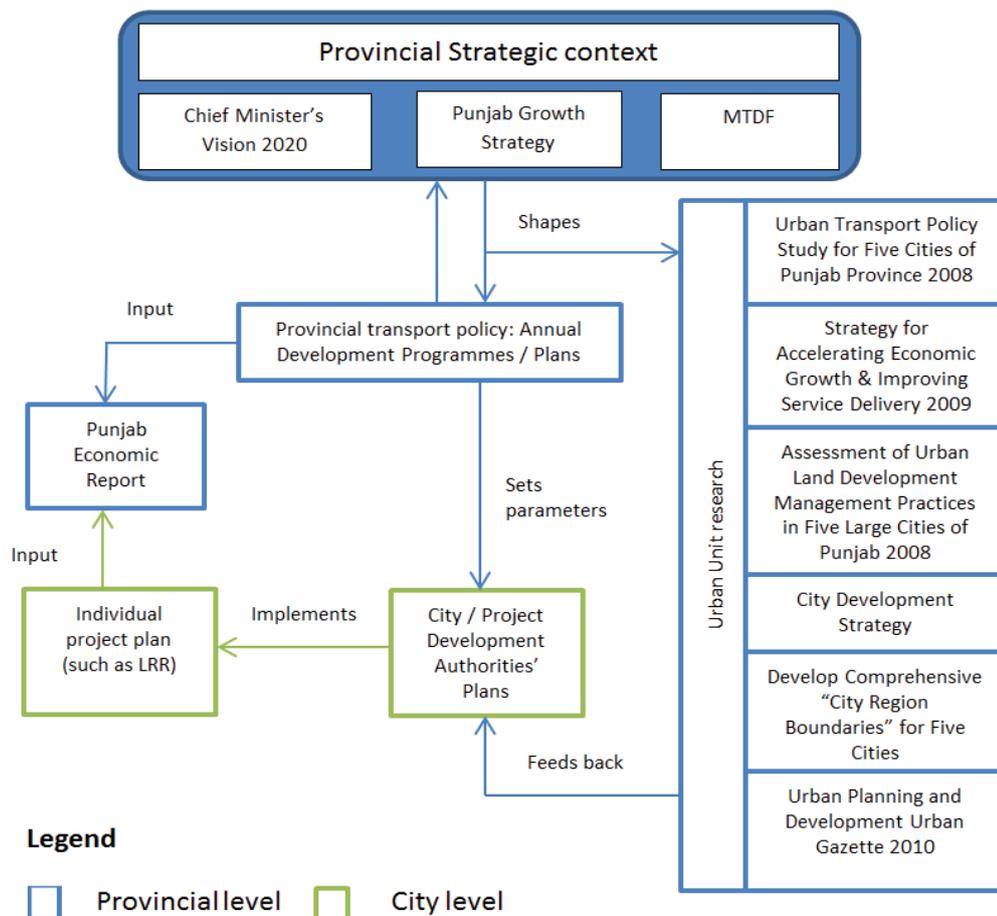


Figure 16: Punjab transport policy documents and their comparative relevance (The author).

Conceived in 2004 by the then Pakistan Muslim League – (Quaid-e-Azam) [PML (Q)]-led Punjab government, for example, the CM's Vision 2020 was advanced by formulating seven broad-based long term strategies: 'urban strategy, physical infrastructure strategy, rural strategy, human development strategy, cluster development strategy, provincial regulatory strategy, and development funding strategy' (Government of the Punjab, 2004, p. 4).

As the PML (Q) leadership was based in the Gujrat city, one element of the political sublime was the idea of the 'Punjab Engineering Triangle' (Government of the Punjab, 2004, p. 9) that politically seduced the provincial government. The triangle included the cities of Gujrat, Lahore, Gujranwala and Sialkot (ibid). Therefore, the provision of high quality physical infrastructure was justified and advanced for upgrading highways within the engineering triangle that would boost trade with India and enhance economic growth and prosperity:

This infrastructure would include the establishment of Export Processing Zones (EPZ), industrial parks, communication networks (Roads, rail etc.) providing quick link to the new Lahore Airport, building and upgrading highways within the triangle and upgrading highways to India. Improving infrastructure for existing clusters and helping them move to new industrial parks and the EPZ (ibid, p.11).

Based on the above mentioned *engineering triangle* idea, the government's emphasis on roads infrastructure got further strengthened which was advanced through economic justifications for enhancing income generation:

I had emphasised the importance of communications infrastructure in developing our productive sectors. I had observed that access to communications had a positive effect on the economy of a local area by increasing mobility, reducing transportation time and cost, enhancing access to goods and services and stimulating commercial and other income generating activities through better access to markets (Chief Minister Punjab, ibid, p.48).

Based on these economic justifications, a fast track programme for roads expansion was justified. However, 'lack of a clear vision and strategies on how to provide effective and efficient urban transport infrastructure and services to support sustainable urban development' has been the main challenge faced by successive

governments (Ellis & Fang, 2007, p. 7). Twelve years down the road since the Vision 2020 was presented (Government of the Punjab, 2004), none of its targets appear to be achieved indicating that the tradition of ‘just preparing the plan’ without caring for the ‘implementation’ was practised at the provincial level. This practice is in line with the federal government’s approach as indicated by another transport planning expert:

They [politicians] have their political motives because they want to show [something] to the public as they have to face the public in next election ... [that] they are securing their political constituencies and political position ... in that context they may exaggerate from reality ... they may play with statistics (Expert 2).

A member of the Provincial Assembly (MPA) from the Pakistan People’s Party also pointed out that Punjab’s experience of having dubious ‘visions’ in the past was overly-optimistic. She, therefore, had a different perception of the context in which she viewed the Vision 2020:

... the targets set in the Vision 2020 were simply unattainable ... the fate of Vision 2020 would not be much different from that of Program 2010 launched by the PML-N in its last stint in office (Dawn, 2004b).

The political seduction and over-optimism in the economic justifications presented by the PML (Q)-led government is also evident from the big claims it made in terms of the notion of ‘quantum jump’ in ‘development and promote rapid economic growth’ (Government of the Punjab, 2004, p. 2). In order to attain these targets, no implementation plan was ever presented. In this regard, the perception of a planning academic was similar to the PPP-MPA who also indicated that the targets set in the Vision 2020 were not attainable because of the political motives of the Punjab government to initiate road projects:

I think they [benefits] are over-estimated because normally politicians who are having votes for satisfying the people ... they overestimate [the benefits of] such projects ... so we should have other better projects [supported by authentic data] (Expert 1).

The implementation and approval of projects is apparently done by a high powered-committee of senior government officials called the Provincial Development Working Party (PDWP). It is comprised of ‘the Chairman P&D Board, Secretary of

Finance, Secretary of the concerned department sponsoring the project, Secretary of the Environment Protection Department, Director of Punjab Economic Research Institute and any co-opted member’ (Punjab Planning & Development Department, 2015a). The PSDP appears to have a greater focus on the implementation side of a project such as the LRR. Accordingly, the PSDP considered and approved multiple issues ranging from ‘the LRR route feasibility study selection’ (PDWP, 2007) to ‘the approval of construction of various LRR sections alongside the rehabilitation of urban roads’ (PDWP, 2008a, 2008b, 2008c). Other issues such as ‘roads widening within the LRR’ (PDWP, 2010a), ‘costing of the project’ (PDWP, 2010b), ‘appointment of consultants for third party validation’ (PDWP, 2010c) and ‘construction of underpasses’ (PDWP, 2010d) were also handled by the committee. The committee also dealt with the issues such as ‘liaison with international donor agencies for funds’ (PDWP, 2011b), and ‘approval of flyovers and the LRR road sections’ (PDWP, 2011a, 2011c). It also takes the project implementation decisions such as ‘the approval and establishment of Public-Private Partnership Cell’ (PDWP, 2012a, 2012b) alongside ‘the construction of bridges’ (PDWP, 2013).

Based on the government’s engineering triangle policy, there are three main strategic purposes of building the LRR based on economic justifications: (i) easy access to Lahore’s international airport, (ii) better connectivity among the triangular cities, and (iii) increased trade with India. This justification got further strengthened when a strategic plan for Lahore region involving the neighbouring cities of Kasur, Sheikhupura and Nankana Sahib till 2035 was formulated (Lahore Development Authority, 2013).

The second component of the strategic context is MTFD which is a three years rolling strategic plan (Government of the Punjab, 2015b). Its inclusion in the strategic context (Figure 16) accommodates different policy approaches of various governments within the broader long term guidance of the CM’s Vision 2020. The policy perceptions of the CM’s Vision 2020 were translated into the MTFD. A review of MTFD and ADPs indicates that over the last twelve years, the economic

justifications for promoting roads have been the same during the tenures of the PML (Q) (2002-2008) and PML (N) [2008 till to-date (2016)] governments. The PML (Q)-led government, for example, emphasised improving ‘average road density from the present 0.3 km to 0.4 km/sq. km aiming to sustain and promote economic activities’ (Punjab Planning & Development Department, 2006). The same focus on ‘fostering economic growth by roads building’ was emphasized in the following years (Government of the Punjab, 2007, 2008).

Later the PML (N)-led provincial government emphasized building province-wide secondary arteries for linking national motorways to foster economic opportunities (Government of the Punjab, 2009, 2010). The government then planned the Lahore Metro Bus based on similar economic justifications (Government of the Punjab, 2011c) alongside the construction of high quality roads network in the public sector to generate maximum employment opportunities and enhanced economic growth (Government of the Punjab, 2012b). A similar focus can be seen in the later years in which the emphasis is on expanding province-wide secondary arteries (covering north-south and east-west corridors) linking national motorways / trade corridors to foster economic opportunities (Government of the Punjab, 2013b, 2014). Under the MTFD 2015-18, the government intends to extend roads infrastructure throughout the province with special focus on ring roads around many cities in line with the LRR:

The Punjab Government is also planning for the construction of circumferential roads in the big cities to reduce traffic stress on metropolitan roads. The Lahore Ring Road Project is accordingly being implemented comprising northern and southern loops (Government of the Punjab, 2015b, p. 267).

The Chief Engineer (Roads & Bridges) of the Punjab Planning and Development (P&D) Board, however, disagreed with government’s approach of expanding roads without giving ‘due consideration to the implementation side’ (Expert 8). A senior government official posted as Deputy Secretary of the C&W department also supported the views of the Expert 3. He held ‘the CM’s directives’ as responsible for

government's failure to come up with a comprehensive 'provincial roads plan' supported by 'relevant data and implementation plan':

We do not have any project priority criteria ... we are just prioritising our projects on the basis of CM directives ... the projects are just imposed on us ... because of lack of prioritisation, sometimes a project starts with Rs.100 million (say) but ends up in Rs.300 million (Expert 9).

It was also observed that the vision for roads under infrastructure sector was consistent from 2007-8 to 2012-13, aiming to upgrade and increase the roads network. However, in 2006-7, it had a greater focus on liaison with the district governments potentially due to the Devolution Plan 2001 [for details of the Devolution Plan, see Urban Unit (2008a, p. 8)]. The PML (N)-led Punjab government's transport policy, however, inherently relates roads construction with achieving economic growth which place economic justifications at the core of the policy:

The provincial government envisions construction of a high quality infrastructure as planning, constructing and maintaining road network in public sector under need driven and cost effective regimes aiming at providing best possible means of communication to the general public. Public sector construction projects are well recognized to generate maximum employment opportunities and contribute toward enhancing economic growth (Punjab Planning & Development Department, 2015b).

The perception of the economic justifications at the government level has gained popularity resulting in extended roads investments in the rural areas as well (Government of the Punjab, 2015a). This approach is apparently in the backdrop of several urban management studies conducted by a provincial urban management and research department called 'the urban unit' (Urban Unit, 2008a, 2008b, 2009, 2010, 2012).

The PGS 2018 is the third important strategic document advancing roads infrastructure at the Punjab level based on developing well functional cities and urban clusters, private sector investment, employment-intensive and export-oriented economic growth (Government of the Punjab, 2015c). 'Accelerating economic growth' is the main theme of the PGS 2018 based on several sub-themes

including ‘enabling cities to become engines of economic growth’ (ibid). The Punjab government’s transport policy inherently relates roads construction with achieving economic growth which place economic justifications at the core of the policy:

The provincial government envisions construction of a high quality infrastructure as planning, constructing and maintaining road network in public sector under need driven and cost effective regimes aiming at providing best possible means of communication to the general public. Public sector construction projects are well recognized to generate maximum employment opportunities and contribute toward enhancing economic growth (Punjab Planning & Development Department, 2015b).

With this background, the government’s perceptions of associating roads building with achieving economic growth are advanced at the district level.

7.2.3. Transport policy and planning at the district level: an analysis of Lahore Ring Road-Southern Loop

Under the legal framework provided by the Local Government Ordinance 2001 and the Punjab Local Government Act 2013, the Punjab province is divided into Districts which are further divided into Tehsils/Towns and then into the Union Councils (Government of the Punjab, 2001, 2013a). In case of provincial capitals, such as Lahore, City District Government is in place consisting of various Town Municipal Administrations (ibid). The district or city level transport policy and planning in Lahore revolves around the long term district development plan and the short term district development plans. A short term district development plan devolves from the MTDf and the ADP to the district/city level. It establishes a policy interface between various categories of justifications advanced at the national and provincial levels to the city level. Based on the objectives of the PGS, the long term district development plan provides planning objectives in different districts of the Punjab province in the long run (ibid).

Long term urban planning in Lahore

In case of Lahore, for example, the Integrated Master Plan for Lahore (IMPL)-2021 (as amended in 2015) is a long term development plan (Lahore Development Authority & NESPAK, 2004). The IMPL has been subjected to consistent changes as

per the government requirements. Its preliminary draft was submitted to LDA in July, 1998. Based on the comments of various government agencies and professionals, the draft was revised and re-submitted to LDA in November 2002. It was further refined and finally got clearance from the Project Steering Committee on June 23, 2004 and was, accordingly, approved by Lahore District Council on October 6, 2004 (ibid). Taking into account the growth components, prospects and challenges of Lahore Metropolitan Area, the IMPL provides recommendations on various urban development sectors such as infrastructure, transportation, land use, and land development up to the year 2021 (ibid). Since the inception of the IMPL-2021 in 2004, rapid urbanisation of Lahore and its adjacent towns entirely changed the economic and social requirements of the urban area of Lahore (Lahore Development Authority, 2013, p. 1). The changing socio-economic requirements of the city needed another long term plan that could accommodate ‘the scale and complexity of urban problems’ in Lahore (ibid). The LDA, accordingly, embarked on preparing another long-term plan, called Integrated Strategic Development Plan for Lahore Region 2035 (ISDP-2035), on which work is still underway (ibid). The purpose of ‘the ISDP-2035 is to facilitate economic and regional development in the Lahore Region to achieve economic, social, physical, environmental, and cultural sustainability, and consequently to improve the quality of life of the people through improved urban services’ (ibid, p. 2). The IMPL and the ISDP provide the strategic context for the transport policies of the Lahore District and Lahore Region. Their comparative relevance with other relevant policy and planning documents is shown in Figure 17. The Chief Engineer (Roads & Bridges) of the Punjab P&D Board supported the Lahore Master Plan prepared by JICA which, to him, ‘should be the part of master plan of the city’ in aligning its transport policy (Expert 8).

Prepared by JICA in 2012, the Lahore Urban Transport Master Plan (LUTMP) is aimed at providing the transport policy and planning of Lahore up to the year 2030 (JICA, 2012, p. S/1). The study took up the entire Lahore District along with Kasur and Sheikhupura Districts suffering from worsening traffic situation (ibid). Some of the constraints in developing the LUTMP were identified to be ‘insufficient

institutional capacity of the government, poorly coordinated project implementation, limited funding, [and] unclear status of “committed” projects’ (ibid, p.S/3). The LUTMP suggested that ‘the only way to effectively meet transport demand is to provide the city with a high-quality public transport system which must be developed in integration with the urban development’ (ibid, p.S/4). Due to lack of institutional capacity, several mega projects such as the Lahore Metro Bus project, the Lahore Walled City project and the LRR were executed by establishing authorities under independent legal and administrative cover.

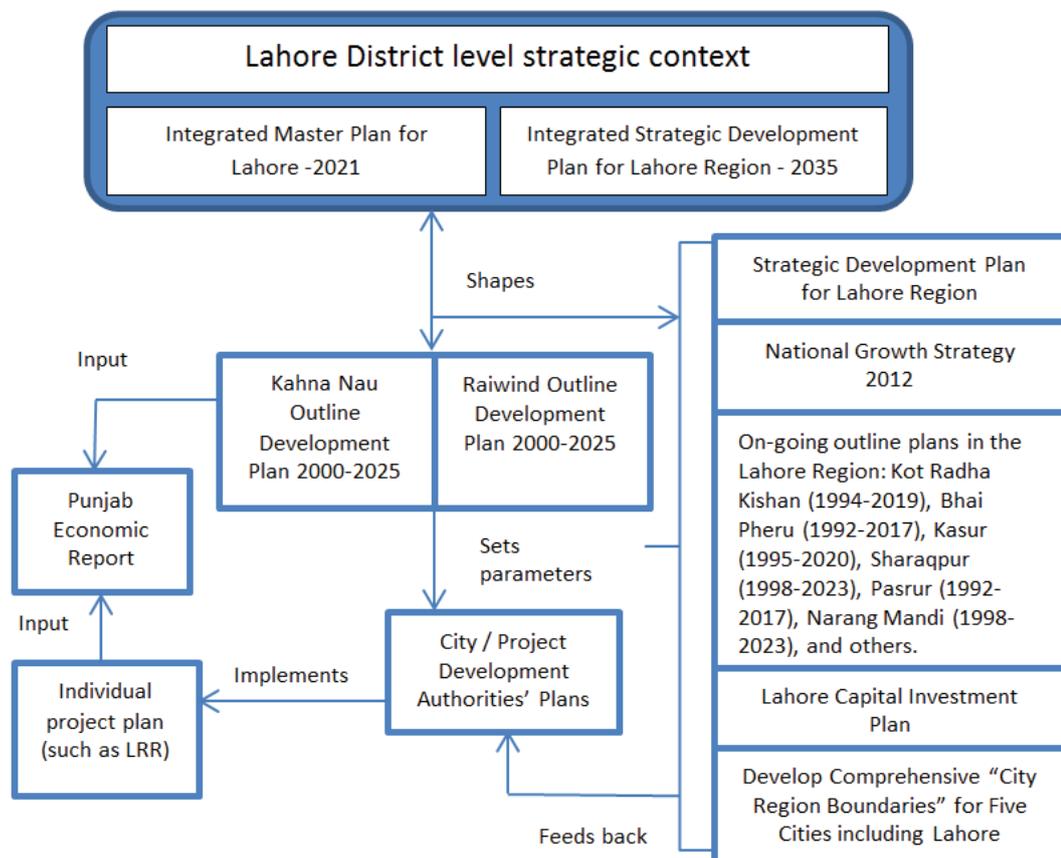


Figure 17: Lahore District level transport policy documents and their comparative relevance (The author).

Against the backdrop of this policy and planning framework, it is important to understand how the economic justifications were presented in the LRR – the second

case study. The LRR is 85 kilometres long six lane orbital motorway around Lahore's built-up area with following planning and policy objectives:

(i) relieving city traffic congestion, (ii) expanding city road network, (iii) relieving traffic of suburban settlements, (iv) building bypass for congested routes and inter-city/inter-district traffic, (vii) providing pollution free environment, and (viii) improving the gateways of Lahore (LRRRA, 2012g, p. 1).

The Punjab government advocates the LRR as an effective and efficient road project vis-à-vis other options because many major cities in the world, such as London, Birmingham, Washington, Riyadh, Madina, Dehli, Banglore and Indian Hyderabad, have ring roads (ibid.p.3). The LRR is divided into two sections: the Northern Loop (NL) and the Southern Loop (SL). Out of 85 kilometres, the 40 kilometres NL was completed in 2012, whereas the 45 kilometres SL is yet to be completed (LRRRA, 2012g, p. 53).

The LRR route inception and changes

The idea of central and peripheral Lahore, suggesting circular growth of the city, is present in several old studies (Latif, 1892; Muhammad, 1952). With the inception of the culture of preparing Master Plans for Lahore in 1951, the pattern of Lahore's suburban circular growth was noted (Government of the Punjab, 1951; Groote et al., 1989). Accordingly, the desirability of a Ring Road around Lahore was recognised in 1960s (Government of the Punjab, 1966; LRRRA, 2012g, p. 1). The idea of the LRR was, therefore, originally conceived during the preparation of a Master Plan for Greater Lahore in 1966 (LRRRA, 2012g, p. 4). The research shows that Lahore consists of 'nuclear' (urban) and 'peri-nuclear' (suburban) parts having an urban 'core' (walled-city) and suburban 'fringe' encircling the city (Gulzar, 1976, pp. 2-3). This suggests that Lahore needed a Ring Road to keep the suburban circular fringe intact and connected both within and with the core. The alignment of the LRR route was, however, originally identified in a study sponsored by the Swedish government in 1980 (SG, 1980). Some LRRRA reports mention this study:

Lahore Urban Development and Traffic Study [LUDTS]- 1980 [was] carried out for LDA [Lahore Development Authority] by M/s Halcrow, Fox and Associates. In this study traffic analysis for Qartaba Chowk [was] carried out. At grade and grade-

separated options [were] analysed based on present and future year traffic (LRR, 2012g, p. 39).

The LUDTS also included a Structure Plan²³ for Lahore, prepared jointly by a team of the World Bank and LDA, suggesting a semi-circular route around Lahore (LRR, 2012g, p. 5; Rahmaan, 2011, pp. 219-220; World Bank, 1980). The concept of a complete Ring Road around Lahore was developed in a JICA study, called Comprehensive Study on Transportation System of Lahore (CSTSL) (Imran, 2010, pp. 185-187; JICA, 1990; LRR, 2012g, p. 6). The LRR alignment suggested by the CSTSL is usually referred to as 'the 1992 alignment' (LRR, 2012g, p. 6), as shown in Figure 18, followed by a pre-feasibility study conducted by international consultants (MM, 1992). The CSTSL addressed various transport issues ranging from traffic demand of the city to the formulation of a Master Plan:

Comprehensive Study of Transportation System in Lahore - 1991 by [JICA] is the most comprehensive study carried out so far for the city of Lahore. Part I deals with present transport demand and road network. Part II deals with future traffic demand and Master Plan for future year projects. Part III deals with Feasibility Study (LRR, 2012g, p. 39).

In another study, a traffic model for Lahore was developed to stimulate present and future year traffic demand alongside optimum toll rates along the proposed LRR route alignment (SMEC, BBTIE, & PANTEC, 1996). The Punjab Government initiated efforts to build the LRR on BOT²⁴ basis in 1999 (Imran, 2010, p. 186; MM, 1999). In 2000, the Punjab Housing and Physical Planning Department prepared suburban plans for Southern Lahore. Improvement in several roads, such as Ferozepur Road, Lahore Road and Sunder Road, traversing through the LRR-SL as shown in Figure 18, were recommended in these suburban plans (Housing & Physical Planning Department, 2000a, p. 49; 2000b, pp. 20-22). NESPAK carried out another LRR study in 2005 suggesting several technical reasons for the route design changes:

Lahore Ring Road Traffic Study and Modeling carried out for C&W [Department] by NESPAK in year 2005. In this study different Alternatives were analyzed for Ring

²³ Generally, the Structure Plan and LUDTS are wrongly treated as synonyms. In fact, the Structure Plan was initially not part of LUDTS and was included therein later (Rahmaan, 2011, pp. 219-220).

²⁴ Build, Operate, Transfer

Road Alignment. Based on congestion relief on major arterials and intersections and fatal flaw analysis the best Route Alternative was selected. Traffic model was developed for year 2008 as well as for future years 2010, 2015 and 2020 traffic demand (LRR, 2012g, p. 38).

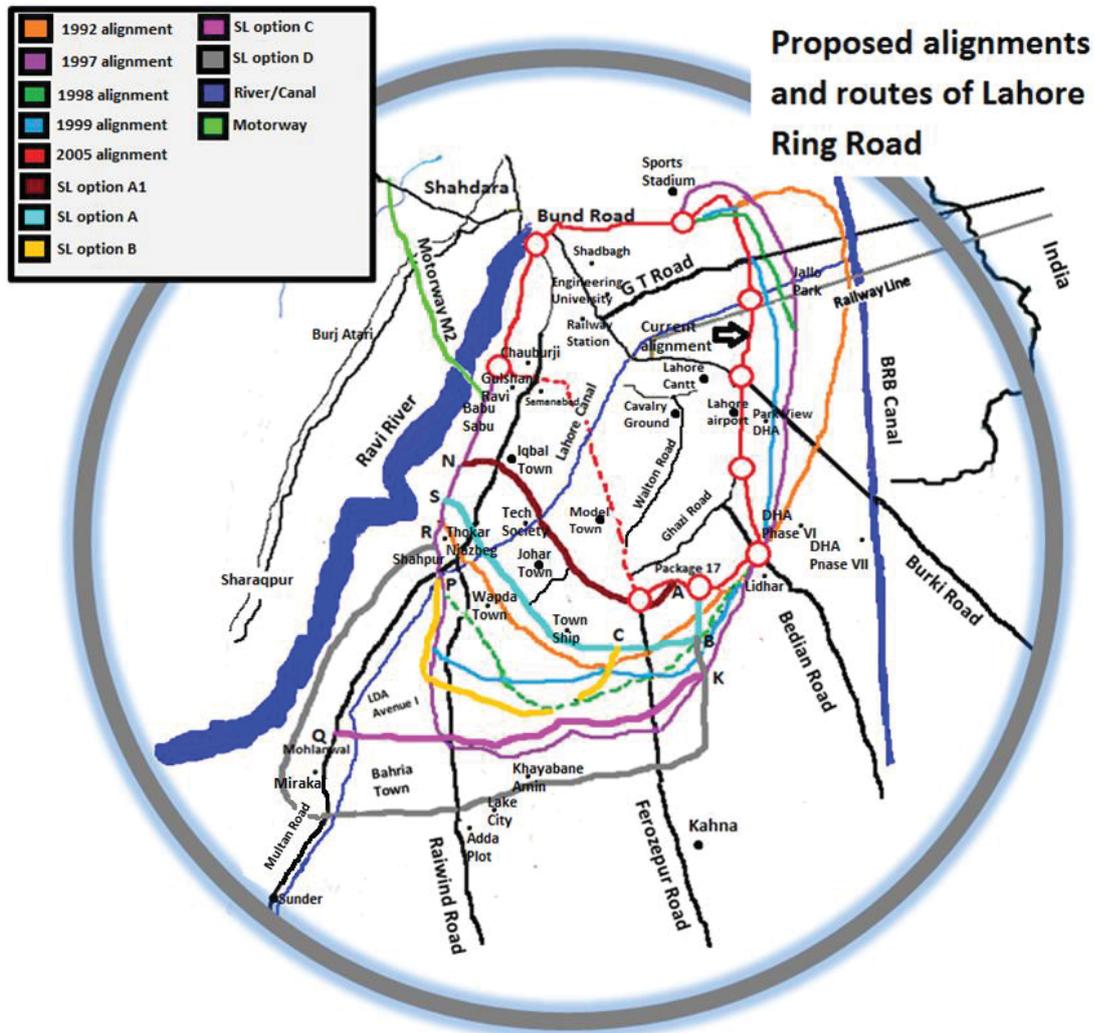


Figure 18: Various changes in the LRR-SL routes [Prepared by the author based on LRR (2012g)].

In 2007, the C&W department and the LRR Project Management Unit (PMU) awarded NESPAK the task of the SL route alignment and feasibility study (LRR, 2012g, p. 30; NESPAK, 2009a). According to the above mentioned studies, the concept, route and design of the LRR have undergone several changes because of continuously changing political, economic and aesthetic justifications during

different governments (Figure 18). A planning academic blamed the politicians and military for the LRR route and design changes:

... there is a mafia involved in this project ... they want to [make LRR] pass through their neighbourhood ... so they try to divert the route of the ring road ... they are changing the design ... they are changing the access of this route ... first they decide, this will be the first ring, then they decide this should go from that area ... (Expert 1).

A similar perception was observed in the media suggesting that it was actually the power of political and military stalwarts advancing the political and economic justifications for building the LRR. In this regard, it was argued that the LRR project design was changed on a political basis which distorted the actual ring road plan as per the 1992 alignment:

The political aspect and tragedy of the project is that the previous provincial government deliberately tried to modify and delay the project that resulted in damaging of the actual plan. It saw many changes in its design – four times in 1992, 1999, 2004 and 2007 – for protecting the interests of some favourites in the government (Khan, 2008, p.1).

In this regard, a report of the Lahore Ring Road Authority mentions that the LRR decisions cannot be taken without taking care of the Defence Housing Authority²⁵'s (DHA) interests (LRRRA, 2012g). As articulated by a technocrat, this view indicates a lack of transport planning on the part of the provincial government in finalising the route alignment alongside hasty and dubious decision-making on ad-hoc basis without caring for the requirements of the long term urban future:

Ideally the [Punjab] government should have taken into consideration the city requirements in next 50 years ... If urbanisation continues to take place, then LRR will also turn into an ordinary road and we will not be able to achieve its purpose (Expert 8).

²⁵ It is a powerful real estate organization which was originally registered as a housing society in 1975, called Lahore Cantonment Cooperative Society, under section 5 of the Cooperative Societies Act 1925 (Defence Housing Authority, 2013a). In 1991, the Lahore High Court gave the administration of the society to Commander Lahore Corps, a senior military officer (ibid). The DHA Ordinance empowers the organization to acquire and hold property and to enter into contracts, thus making it a powerful military real estate entrepreneur (Defence Housing Authority, 2013a; Government of Pakistan, 1999, 2002).

Lack of long term planning and haphazard approach in hurriedly building the LRR resulted in the collapse of a bridge killing one person (Geo, 2012, 2013). The project was also challenged in the Lahore High Court because of changes in its alignment (Dawn, 2004a, 2004c). Furthermore, the affected people and traders demanded market based compensation for their business lands (Dawn, 2005a). According to media reports:

The Ring Road now being built under the revised plan does not form a ring around the outer periphery of the city. Experts say that half of the Ring Road of the original plan has not been included in the revised one. They say the proposed project is primarily an up-gradation of existing urban roads (Dawn, 2005b).

Against the backdrop of this argument, frequent changes in the LRR design appear to be the result of extractive transport policies. In this regard, another planning academic saw the lack of discussion at the political level as the main reason for the LRR design changes:

Different governments have different [political] ideologies ... they manoeuvred on its [LRR] lay out ... in that sense it remained out of discussion at larger debate level (Expert 2).

This dimension, as articulated by a senior official of the C&W department, required both 'pre-construction' and 'post-construction' analyses which was unfortunately not the case. He argued that there is no such study which could actually help understand the lessons learnt from the NL so that the same could be applied to the SL:

This [LRR] is a political project ... therefore such slogans [of achieving economic growth and prosperity] are also political ... you may find only pre-construction analysis but there is no post-construction analysis (Expert 9).

Lack of data alongside absence of the practice of carrying out pre and post construction analyses kept the LRR decision-making dictatorial in character, seduced by political and economic motives. According to the concerned official, various political governments have been protecting their political and economic interests by changing the LRR route and design:

Every government has been trying to cash-in [LRR] ... Nobody bothers if costs are escalated or the design is changed or the project is completed late. The only thing

that matters is political survival [of political parties]. That's the reason the project has been advancing in various political tenures [with different route alignments] (Expert 8).

The political tenures included both civil and military regimes. As the PML (Q)-led provincial government came into power with the support of military, a planning academic linked the LRR and its decision-making with the involvement of 'senior officials of the Pakistan army' particularly those 'heading the DHA' (Expert 2). His views were in consonance with the concerned Chief Engineer who argued that the LRR route was forced to pass closer to the DHA lands so that their values are enhanced:

The government just approved the 1992 design of LRR made by LDA in a preliminary study ... the same study was extended ... One more thing is that LRR gives a link to Lahore Airport ... if further studies have been done we could have moved further beyond instead of passing it through DHA (Expert 8).

The power of DHA has been questioned by many in the media and the higher courts of Pakistan (Asad, 2015). The Supreme Court of Pakistan itself asked the question from the federal government (ibid): 'Is the DHA, a real estate entity of the army, working without any oversight or is it answerable to the federal government?' Therefore, a general perception prevails in the media that military officials are not accountable to anyone so is the DHA. In this context, the politicians, the DHA and the bureaucrats had a greater role to play in the LRR route alignments making the role of a formal transport policy very limited. This view was supported by a senior government official who blamed Pakistan's military for the LRR design changes:

I think army officers are still active behind building Lahore Ring Road. No matter if the design is changed. The project does not have a policy mechanism so its cost has escalated many folds but who cares (Expert 9).

Frequent changes in the LRR route and design changes made it controversial despite the advancement of various economic justifications. NESPAK, however, suggested four different alignment options for initial scrutiny of the SL naming them A, B, C, and D (LRRRA, 2012g, p. 39). The LRR Review Committee later suggested another option A1. All five alternatives are shown in Figure 18. Option A1 is shown in dark red colour with a total length of 17.5 kilometres. It starts from node A at

Package 17²⁶ of the NL and ends at the M2 section of motorway at node N. Option A is shown in aqua colour with a total length of 22 kilometres. It takes a 90 degree turn from Package 17 towards the south where it starts at node B and ends at the M2 section of motorway at node S. Option B is shown in yellow colour with a total length of 29.3 kilometres. It also starts from Package 17 and has the same route as that of alternative A till node C where it takes a different route and ends at Thokar Niazbeg by connecting with the motorway. Option C is shown by the pink colour with a total length of 40 kilometres. For this alternative, Package 17 takes a 90 degree turn further towards the south till node K and culminates at Mohalanwal at node Q. Option D is shown by grey colour with a total length of 45.2 kilometres, the longest of all options. It starts from Package 17, at node A, and takes a route towards the south where it passes very close to Sunder. As compared with other four options, option D reflects a steep ascending rise which takes the road from urban Lahore to suburban towns of Raiwind and Sunder. It takes back the road to urban Lahore in a descending manner culminating at node R. Sunder Industrial Estate and the town of Raiwind seem to act like a magnet which attracts the SL route in a bulging fashion and distorts its conceptual shape from a circular ring to a steep hyperbola as shown in Figure 18 [for details of the Sunder Industrial Estate, see Punjab Industrial Estates (2013)].

Besides economic justifications, the following nine technical reasons justify the finalization of the SL route from among the five available options: (i) utility services upgrades, (ii) right-of-way (ROW) restrictions/constraints, (iii) height restrictions, (iv) constructability constraints, (v) off-site improvements, (vi) new interchanges, (vii) parallel roadways, (viii) environmental impacts, and (ix) economic and financial viability. The option D was found to have higher 'economic and financial viability' as compared with other options (LRR, 2012g, pp. 50-51). Based on the 2012 pro-rata

²⁶ The LRR was divided into different sections called 'packages'. The Package 17 is the last package where the NL ends and the SL starts (LRR, 2012g). By treating the Packages as separate projects, the bureaucratic hurdles were overcome which require the federal government's approval beyond certain financial thresholds of a project budget [for details of development projects management and the coordination between federation and provinces, see Planning Commission (2010b)].

costs worked out for the NL, the estimated cost for the SL alternative D was divided into following two parts: (i) construction cost amounting at Rs.21.17 billion, and (ii) land acquisition and compensation cost amounting at Rs.19.78 billion (LRRRA, 2012g, p. 56). The total estimated cost of option D comes out to be Rs.41 billion. It may be noted that the original estimated cost of whole LRR was estimated at Rs.24.2 billion by JICA in 2006 (JICA, 2006, p. 6) whereas the original cost incurred on the NL comes out to be around Rs.92 billion. This suggests that the 40 kilometre long NL incurred a cost of Rs. 2.3 billion per kilometre.

The economic justifications for stretching the option D until the Sundar Industrial Estate and Raiwind are supported by project analysis including 'quantification of economic benefits of the SL', 'determination of economic costs of the SL' and 'calculation of multiple economic indicators such as NPV²⁷, BCR and EIRR²⁸ alongside 'sensitivity analysis' (ibid, p.60). For this economic evaluation purposes, five options were studied for the SL. The benefits were segregated as tangible and non-tangible. The tangible benefits included 'advantages to road/LRR-SL users' in terms of 'vehicle operating costs (VOC)', 'value of travel time (VTT) and 'the residual/salvage value of the road and structures at the end of the economic life of the project, taken as 20 years for the economic analysis' (LRRRA, 2012g, p. 61). Intangible benefits constitute 'a number of economic and social benefits or advantages which, although important, cannot be quantified in monetary terms. These include travel comfort, tension-free driving, an increase in economic activities and an increase in land values in the immediate vicinity of the proposed road and, as a result, an increase in employment opportunities during the construction and post-construction period' (ibid).

The economic viability of the SL was estimated based on the computations of NPV, BCR and EIRR. The SL project investments were estimated for five options. The SL

²⁷ Net Present Value (indicates difference between discounted benefits and discounted costs of a project)

²⁸ Economic Internal Rate of Return (represents the average earning capacity of the capital invested)

project investment costs include construction cost, recurring cost and overlay costs. These costs were converted into economic prices by applying a conversion factor of 0.90 (ibid.p.63). Based on these costs, the economic justification of the SL project was established by arguing that the net benefits of the SL outweigh the net costs as reflected in the economic indicators. These indicators (NPV, BCR and EIRR) are the criteria behind the justification of building the SL. Based on this criteria, the D2 option was declared the favourite because it had better indicators vis-à-vis the economic justifications: (i) the highest NPV at 60392 million rupees, (ii) highest BCR at 3.31 and (iii) highest EIRR at 31.03%. These results were obtained by only considering the VOCs which itself remains a significant estimation flaw (LRR, 2012g, p. 66). In order to rationalise the possible increase (+) or decrease (-) of benefits and costs, a sensitivity analysis was carried out in which three simulations were run. First, decrease in benefits by 10% and 20%. Second, an increase in project investment costs by 10% and 20%. Third, both scenarios taking place simultaneously.

Despite this quantitatively fixed investment analysis, several issues of LRR decision-making revolve around the exercise of power. Since 2012, the SL is in a state of limbo for one reason or the other. The government has now invited bids to build the SL on a Public-Private Partnership (PPP) basis (PPP, 2016b; The News, 2015). The policy and investment analysis indicates that the LRR policy and decision-making is predominantly following quantitatively fixed approaches while ignoring power issues, such as political manoeuvring and influence of DHA. The economic-cum-political justifications are so strong that the project kept on advancing in the tenures of different governments. Unless the contextual policy issues are addressed, both at the policymaking and policy implementation levels, it will be hard to validate the claims of achieving economic growth and prosperity by building the LRR.

7.3. Conclusion

The aim of this chapter was to identify the policy arguments that justify achieving economic growth, at the federal, provincial and district levels, by building the LRR. There is no evidence that transport vision-making in Pakistan is based on rigorous research. As a result, there are no approved transport policy guidelines with the federal Government of Pakistan that could develop a robust strategic context for lower level governments. Therefore the arguments advanced for promoting roads investment in Pakistan, for achieving economic growth, are weak. The federal government has a strategic vision for transport but there is no legal mechanism to effectively implement it at the provincial and local levels. As a result, the provinces are making their own strategic contexts and their own transport policies, programmes and projects. Linking economic growth with roads investment is a dominant argument in these policies, programmes and projects. As a result of incoherent transport policy at the federal and provincial levels, the LRR project has never been part of a coherent national and provincial transport policy document and is, therefore, implemented in piecemeal ways. It is expected that the LRR project costs will continue to overrun at the implementation level due to continuously changing routes, designs and the associated delays. The contextual issues such as the influence of politicians and the DHA in finalising the route and design changes are significant issues to be discussed in the next chapter.

CHAPTER EIGHT

Planning process and pragmatism in Lahore Ring Road-Southern Loop

The development planning [in Pakistan] has been suffering from consistent mistakes. Inconsistency was also apparent in planned allocation, budgetary allocation and actual utilization. High financial and physical targets were set to be hardly achieved. Initial promises and consequent actions are so different. The same pattern is repeated time and again (Chaudhary & Abe, 1999, p. 59).

8.1. Introduction

The purpose of this chapter is twofold: (1) showcasing data to analyse how the stakeholders' voices were accommodated in the LRR planning and decision-making process, and, (2) considering the discourse behind the claims of achieving economic growth in the LRR project. Accordingly, the first part investigates the LRR planning process through a stakeholder analysis by investigating the role of various stakeholders within formal and informal procedures. Formal procedures were investigated which include legislation, rules and regulations, while informal practices refer to planning norms and values in practice. The purpose of the stakeholder analysis is to identify the beneficiaries of LRR-SL as a result of formal and informal planning processes. The second part concentrates on the discourse and content analysis to discursively investigate the storylines advanced for promoting the LRR. In this section, the main storyline and sub-storylines have been identified along with establishing the themes to understand the relationship between building the LRR and achieving economic growth and prosperity. Finally, the conclusions are drawn.

8.2. Part 1: Stakeholder analysis

This section analyses the planning processes during the LRR planning, design, and construction. It investigates how the views of different stakeholders are treated in the planning process. Based on the LRR documents and semi-structured interviews, the views of political, statutory, territorial and business groups, emergency services, industrial interest groups and individuals/groups affected by the construction have

been considered. The decision-making process in finalizing the LRR alignments can be divided into two categories: ‘strategic level policy decision-making’ and ‘implementation level operational decision-making’ involving nine stages as shown by Figure 19.

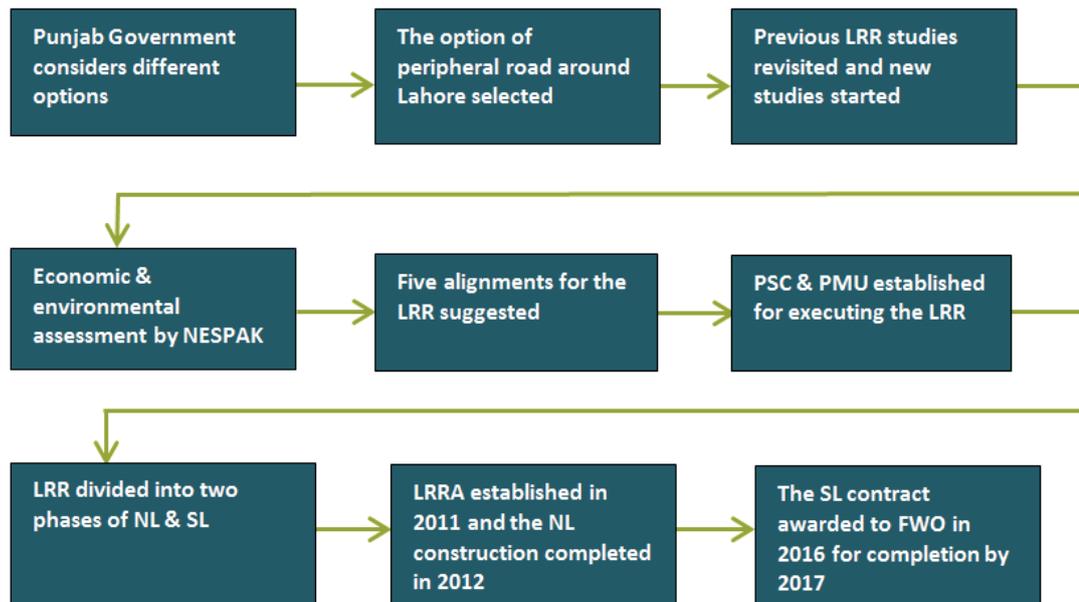


Figure 19: The steps involved in the LRR decision-making process (the author).

8.2.1. Planning process at the strategic level

Though the concept of the LRR has been recognized since 1960s (LRR, 2012g, p. 1), five options were considered by the provincial PML (N)-led government, in 2008, at the strategic level ‘to provide relief to city traffic congestion’, provide ‘a pollution free environment’ and ‘improvement of the gateways to Lahore’ (ibid). The options included: ‘improve road geometry and standards of city roads and streets’; ‘improve intersections and introduce signaling system’; ‘improve signal free main routes by providing flyovers and underpasses’; ‘provide adequate parking facilities near commercial zones’; and, ‘construct peripheral road and improve major radial routes’ (ibid, p.3). The fifth option is the LRR.

The decades old history of the LRR concept and implementation of the NL, by the PML (Q)-led provincial government in 2004 and the PML (N)-led government in 2008, were the dominant factors in the LRR decision-making process at the strategic level (Communications and Works Department, 2008b). An LRRRA official, however, argued that ‘a No-Objection Certificate (NOC) was obtained from the Punjab Environment Protection Department (EPD)’ (Expert 7) before proceeding with the project. His viewpoint was also endorsed by another LRRRA official arguing that ‘we can only convey our technical recommendations to the higher authorities. Only the competent authority then takes the decision’ on the LRR (Expert 4).

In the last twenty five years, therefore, the LRR decision-making process has, predominantly, been technical involving many civil and military governments supporting different alignments and routes. Since the 1992 JICA study, finalizing the LRR alignments and routes has been a major technical and procedural bottleneck in which various stakeholders were hardly consulted (Communications and Works Department, 2008a; LRRRA, 2012g; TEPA & JICA, 1992). The direction of the LRR decision-making has, therefore, been technical and extractive in nature because it exhibited power interplay by the provincial government (ibid). The LRRRA technical reports, however, suggest the army’s involvement in the LRR strategic level decision-making on the alignments and routes due to their proximity with the military cantonment areas:

In 1992, the concept of a complete ring road was developed in a study “Comprehensive Study on Transportation system of Lahore” funded by JICA. There is no evidence that any detailed on-ground alignment study, particularly in the army area, was carried out and, thus, the JICA alignment in the Army area was only notional (LRRRA, 2012g, p. 6).

The alignment proposed by the 1992 JICA study was changed by the then PML(N)-led government when the then Prime Minister desired the authorities to connect the ‘Lahore M2 motorway’ in order to get benefit of inter-city traffic and ‘encircle Jahangir’s tomb across the river Ravi’ in the new alignment (ibid, p.7). LDA, accordingly, prepared an alignment which was approved by the Prime Minister on July 27, 1997, instructing the authorities to build the LRR on Build-Operate-Transfer

(BOT) basis (p.8). In this regard, an LRRRA official, while responding to the 1997 alignment change, angrily admitted that the successive governments never planned priorities for the LRR:

We [the governments] actually do not fix the priorities ... the projects are fixed by the [political] executives and [not] the people who are at the helm of affairs ... [by those] who have the decision powers ... we [LRRRA] being the technical people are just executors whenever we are given assignments for execution of any project ... our job is limited only to this thing (Expert 6).

Following the Prime Minister's instructions, therefore, bids were invited to build the LRR on a BOT basis. As part of the bidding process, C&W department along with LDA negotiated with M/S Paktoll of the UK for evaluating different aspects of the LRR, particularly the 1997 LDA alignment (LRRRA, 2012g, p. 9). As a result of negotiations, a concession agreement was signed with M/S Paktoll on August 25, 1998. The technical executives of the company, however, did not agree with the 1997 LDA alignment altered after the suggestion of the Prime Minister. It rather suggested another alignment in 1998 in which the LRR was brought closer to the built-up area for making it more useful for the traffic (ibid). Commenting on the Prime Minister's suggestion behind the 1997 alignment vis-à-vis the technical disagreement of M/S Paktoll, an LRRRA official stated:

Basically such projects need to be planned at national level keeping in view national requirements ... During the execution of the project, we do not see the consistency [due to political aspirations] ... Had the government executed LRR in true letter and spirit, we could have got better results (Expert 11).

Following termination of concession agreement with M/S Paktoll on April 30, 1999, another concession agreement was signed with a Korean company M/S Daewoo on May 13, 1999 (LRRRA, 2012g, p. 10). M/S Daewoo hired another company M/S Mott McDonald to prepare the LRR feasibility study (MM, 1999). Based on the negotiations with the then PML (N)-led government and against the backdrop of the Mott McDonald feasibility report, M/S Daewoo also disagreed with the 1997 LDA alignment finally declaring that the LRR was 'not viable economically and financially' (LRRRA, 2012g, p. 10). In this regard, an LRRRA official blamed the then PML (N)-led government for being 'politically too assertive in linking the LRR with the M2

motorway and Raiwind' which will reduce traffic and make it less attractive for private sector to invest in the LRR (Expert 11). This approach resulted in project delays by the companies of international repute such as M/S Mott MacDonald, M/S Paktoll and M/S Daewoo. The Chief Engineer of LRR, while commenting on the previous delays in the construction of LRR and frequent alignment changes, argued that 'political assertion' overpowers the technical suggestions put forward by the LRR:

In developed countries the opinion of technical professionals generally prevails but unfortunately it is not the case here [in Pakistan] because of political interventions in the LRR decision-making process (Expert 6).

His argument seems partly valid because, after the October 1999 military takeover, the Governor of Punjab politically revived the project and directed the C&W department to take up the LRR alignment issues afresh. Accordingly, 'the real decision-makers' had a strategic level meeting in which the 2002 alignment was finalized:

On 30.08.2002, the Governor, the Minister CWD [C&D department], the Commander IV Corps²⁹ and the Secretary CWD met over the proposed alignment. Final shape of alignment was approved by the then Governor (LRR, 2012g, p. 11).

The actual decision to build the LRR and its alignment was taken up in this August 2002 meeting. The data suggests that strategic level decision-making for finalizing the LRR alignment and initiating the project was non-negotiable in which the ruling political parties or military government decided the project. In this regard, an LRR official argued:

Nobody can take the LRR decisions without taking the army on board. It is very much a nexus between the political governments and the army's entrepreneurial interests such as the DHA's planning and expansion (Expert 7).

The C&W department hired the Pakistani consultants NESPAK to carry out the 2002 alignment topographic studies for the entire LRR. As the NESPAK studies were

²⁹ Based in Lahore, IV Corps is an administrative unit of Pakistan army with the mission 'to defend the area of Punjab province opposite Amritsar in India. It has two Infantry Divisions (10 and 11), two Independent Infantry Brigade Groups (partly mechanized), and one Independent Armoured Brigade Group' (Pakistan Defence, 2016).

underway, the DHA objected to the alignment between Bedian road and Jallo Park, suggesting a further shift in it close to its Phase V. The LRR technical reports suggest that the DHA had conflicts with almost all the alignments due to its rapid expansion in the suburban areas of Lahore:

All the previous alignments conflicted with DHA planning as over the last few years new phases viz Phase-IV, V, VI, VII, VIII, IX and X have emerged on ground. As a result, large chunks of land in those areas have been acquired by DHA and there has been rapid colonization in some of these phases (LRR, 2012g, p. 17).

As DHA is administered by the military (see section 7.2.3), the alignment issue was again raised and discussed on November 29, 2002, at the IV Corps Headquarters in Lahore. As a result of this meeting, its alignment was revised in a letter issued by the Commander IV Corps on December 2, 2002. However, the alignment issue got complicated and the project was temporarily abandoned (ibid, p.12). It may be noted that the LRR alignments also pass through Lahore cantonment area which are governed under different legislations vis-à-vis the rest of the city (Government of Pakistan, 1948a, 1948b, 1957, 1979). Therefore, lack of consensus on alignments was the main bottleneck in the implementation of the LRR. This dimension was articulated by an LRR official who saw the entire decision-making power in the hands of 'senior army officers' (Expert 9). This perception was recently endorsed by the Chief Minister Punjab in the media who noted that the 'contract for construction of Lahore Ring Road was awarded to former Army Chief General Pervez Ashfaq Kayani's brother Kamran Kayani by [the former Chief Minister] Pervaiz Elahi's government' (The News, 2016b). The former PML (Q) Chief Minister Punjab, however, took the involvement of army in the LRR decision-making to his advantage arguing:

Why [the Chief Minister] Shahbaz Sharif remained silent against General Kayani and Kamran Kayani for eight long years ... no extension was carried out in the Lahore Ring Road up to where it was constructed because lands of Sharif brothers were hit by the expansion of the project (ibid).

The arguments of the two Chief Ministers suggest that decisions in Pakistan cannot be taken without taking the army on board, particularly when a road project is to

pass through the army-controlled cantonment area and the housing schemes administered by it, such as DHA. The LRR reports also reflect this dimension at several places, for example:

Final alignment in this stretch [Barki Road to Ferozepur Road] had to be agreed upon with the concurrence of army/DHA authorities and HQ 4 Corps, who appear to have had almost a veto power on planning in these areas (LRR, 2012g, p. 17).

The Chairman of the Public Accounts Committee also observed undue favor to the army owned construction companies in awarding the LRR contracts:

The LRR project faced charges of misappropriation when the Public Accounts Committee (PAC) Chairman Mian Mehmood Rasheed disclosed audit report, saying that the Punjab Chief Minister Shahbaz Sharif had bent rules to give contract of the LRR to the NLC and the FWO at high rates without following the bidding procedure in 2010 (Khan, 2014).

The initiation of the LRR-NL construction work at the Babu Sabu Interchange by the military ruler President Pervez Musharraf and the Chief Minister Pervez Ellahi, on November 22, 2004, is reflective of the military-political coalition in the LRR alignments' decision-making. In the same year, M/S NESPAK was again appointed for finalizing the LRR alignment (LRR, 2012g, p. 13). NESPAK conducted a detailed traffic study, alongside giving several presentations to the civil and military leadership, for finalizing the alignment (NESPAK, 2005). It may be noted that the 2005 NESPAK report was finalized on the basis of two factors: the technical reason and political agreement with the powerful actors. The technical factors included 'congestion alleviation', 'improvement of traffic operations on critical intersection', and, 'travel time reduction' (ibid, p. p.14). The political factors included the consultation with the civil and military leadership in which their concerns were addressed. As articulated by the LRR Deputy Director (Planning), 'no other stakeholders were ever involved in the alignment finalization processes' (Expert 7). The 2005 NESPAK alignment suggested four alignment alternates in which another alternate was later added (Figure 18). At this point the strategic phase of the project *initiation* was completed.

8.2.2. Planning process at the implementation level

At the implementation side of the planning process, the second phase of *preparation* started when the C&W department initially took up the LRR project in November 2004, making the land acquisition and contract awarding bidding processes very important (LRRRA, 2012g, p. 28). The C&W department was selected due to its vast experience of building roads in the province:

C&W department [is] working in the whole province ... there is an XEN [Executive Engineer] in District, there is an SDO [Sub-Divisional Officer] in every Tehsil, we had our own setup (Expert 9).

However, the provincial government established a Project Steering Committee (PSC) on April 24, 2006, to oversee land acquisition and the relocation of services for the LRR project (LRRRA, 2012g, p. 28). The Deputy Secretary C&W department showed his displeasure over the government's move of establishing PSC which is reflective of the inter-departmental power interplay in the LRR implementation processes. As compared to the C&W department headed by a Provincial Secretary, the PSC was headed by the most senior provincial bureaucrat 'the Chief Secretary' in which the Chairman P&D Board, Senior Member Board of Revenue and all departmental secretaries were its members (ibid). The PSC in its first meeting held in June 2006 observed that the LRR project needed to be implemented on a fast track basis. For this purpose, the PSC approved the establishment of the LRR PMU in the same meeting. The creation of PMU was perceived as a 'snatching away' of resources by some C&W officials who then started opposing the mechanisms of implementing the LRR project. Their opposition was not because that the project had problems, but because the funds were taken away from the C&W department as articulated by its Deputy Secretary:

[The government] is spending so much of resources in just one city [for building LRR] ... C&W is currently handling projects worth more than Rs.100 billion but we are not getting funding ... these projects are being delayed and we are forced to pay cost escalation (Expert 9).

The purpose of the PMU was preparational in nature because it was entrusted with supervising and monitoring the LRR through modern engineering practices for completing it on a fast track basis on schedule and within the budget (LRRA, 2012g, p. 29). Against this backdrop, the work on the LRR started in two phases:

Phase-I [NL]: Starting from Gulshan-e-Ravi moving towards Saggian, Niazi Chowk, Mehmood Booti, Harbanspura, Airport, Bedian Road and ending at Chongi Amersadhu on Ferozpur Road ... [And] ... Phase-II [SL]: Starting from Chongi Amersadhu Ferozpur Road and moving towards Kalma Chowk, Camp Jail, Samanabad Morr and ending at Gulshan-e-Ravi (ibid).

The two phases were termed as the NL and the SL. The PMU gave a briefing to the Chief Minister in April 2007 in which the overlapping of the SL with the green line of Lahore Rapid Mass Transit System (LRMTS) was observed [for details of LRMTS, see MVA (2006)]. The Chief Minister, therefore, directed the PMU to revise the alignment again to do away with the overlapping. After the Chief Minister's direction, the C&W department and the PMU awarded the feasibility and route selection study of the SL to M/S NESPAK in December, 2007, which was completed in 2009 (NESPAK, 2009a). The construction work on the NL started in 2009 (NESPAK, 2009c) and completed in 2012 (The Nation, 2013), while the decision to construct the SL was made in 2016 (PPP, 2016a) (to be discussed later). The Deputy Secretary C&W department, however, questioned the credibility of these studies because the actual decision-making was done by the politicians and the army:

... many army officers have been pressurizing on LRR as they wanted the road to pass closer to their lands ... the projects are just imposed on us ... this [SL] is a political project ... therefore such slogans [of achieving economic prosperity] are also political ... you may find only pre-construction analysis but there is no post-construction analysis (Expert 9).

In this regard, an opposition politician argued:

Lahore Ring Road is a good project but Sharif family's hidden desire is to divert the road up till Raiwind ... we had prepared the project on most modern and scientific lines keeping in view the requirements of the present and future ... but they [PML (N)] have changed it altogether (Politician 2).

The opposition party PML (Q)'s Secretary General criticized the PML (N)-led government in the media pointing out procedural flaws in the process of roads funds allocation by the government:

... during the regime of current [PML (N)-led] Punjab government the construction of roads with the heavy amount of 20 billion rupees without the tender notices was ample proof of corruption (The Nation, 2010).

During the fieldwork and attachment of the author with the LRR in 2012-13, an analysis of the LRR archives revealed few public hearing notices issued by the Punjab Environmental Protection Agency (EPA) in different years. These notices invited the public feedback on the construction of various LRR Interchanges as part of the Environmental Impact Assessment (EIA) report administered under the Environmental Protection Act 1997 and the Punjab Government Rules of Business 2011 (Schedule I, Government of Pakistan, 1997; Government of the Punjab, 2011b). One such notice, for example, was issued on April 3, 2008, in the English Daily Dawn and Urdu Daily Nawa-e-Waqt seeking public feedback on the LRR Harbanspura Interchange construction. According to this notice, the public hearing was to be conducted at Qaddafi Cricket Stadium, Lahore, on April 30, 2008. As compared to a wide range of consultations methods used in the M2PP, the methods used by the Punjab EPA for public hearing were just restricted to the provision of the EPA office telephone and fax numbers alongside mentioning of the website and the physical office address.

The method used in inviting the public to a far-off venue was also not conducive to effective public hearing because the Harbanspura people were invited at Qaddafi Stadium situated at a distance of 17 kilometers. During the field visit of the LRR in 2012-13, it was observed that a far-off public hearing venue makes the chances of the affected stakeholders' participation bleak as a majority of them are poor and do not own personal conveyance. Similar public notices were issued on April 8 and April 14, 2009. In the same year, another public hearing was administered by M/S NESPAK in which it was claimed that stakeholders' concerns have been addressed:

The public hearing for the Lahore Ring Road Packages [see section 7.2.3] 10, 15, 16 and 17 was held at Alhamra Cultural Complex, Lahore on September 7, 2009. The presentation was made by Engineer Jawad Ahmad Khan and Sociologist Sheraz Hussain of NESPAK. Various officials from the Environment Protection Department and Communication and Works Department, Government of the Punjab attended the presentation along with stakeholders. The issues and concerns raised by the stakeholders were addressed adequately by the presenters (NESPAK, 2009b).

However, the documentation of the public feedback was hardly visible in the LRR documents. Because of silence of the LRR documents and reports on the active involvement of stakeholders and the availability of their feedback for the decision-making purposes, the LRR officials were interviewed. In this regard, the Deputy Director (Planning) confirmed that the LRR does not have a formal feedback record of the affected stakeholders because such exercise was never carried out. His argument primarily focused on maintaining the record of feedback from the affected stakeholders rather than just contacting them for administration purposes, such as the land acquisition process:

I searched a lot if we have any such data regarding the feedback from the stakeholders or if we can produce it but, unfortunately, I could not find [such data] (Expert 7).

His argument shows that formal feedback from stakeholders was not collected by the LRR with the exception of on-spot discussion on EIA reports regarding different phases of the LRR. Therefore, the LRR-NL was challenged in the Lahore High Court due to its close proximity with the highly dense urban area:

The petitioner submitted that the Ring Road project in its present form would appropriate another 60 feet of Bund Road. He submitted that houses in as many as eight localities on Bund Road would have to be demolished for the project to displace thousands of residents. Besides, 18 industrial and commercial sites like godowns, factories, markets, shops, a marriage hall, gas stations and offices would also be affected in addition to 14 mosques (Dawn, 2004a).

In disregard to the public notices issued by the EPA, an affected resident argued 'I don't know if public hearing is going on somewhere. They [the government] just took away my land on nominal prices and built a road there' (Resident 1). A similar perception prevails in the media about stakeholders' non-participation. For example, a hardboard seller Muhammad Zeeshan said 'we will not sell our land to

the government at this petty rate' (Dawn, 2011a). Another affected resident Akram, an owner of a restaurant, resisted the forcible acquisition of his land by the government saying 'no one could take his land by force' (Pakistan Today, 2011). Javed, another shopkeeper, said 'if the compensation did not correspond to market rate, he would never sell his shop on throwaway price' (ibid). Another resident also confirmed that he does not know whether any public hearing notice was issued by the EPA. He yelled 'the government is very powerful. We had no other option but to hand over our lands to them [for building the LRR]' (Resident 2). For many affected residents and traders, earning a livelihood was their main issue:

Baba Allah Rakha, who owns a battery shop at the stretch of the junction, says the expansion project will affect his business. "Who knows how badly my shop will suffer from the loss of Bhatta Chowk market" (Dawn, 2011a).

Many government departments, being stakeholders, supported the LRR in line with government policy forming a policy coalition in the entire process. The Chief Engineer (Roads & Bridges) of the P&D Board, for example, while supporting the LRR, had mentioned the establishment of industrial zones along the LRR in his 2013 interview:

As our industry is spread all along the river [Ravi], LRR will have positive economic impacts. In addition, the industry will further develop along the ring road and will increase economic activity. Even government is working as to what type of economic zones be constructed along the ring road (Expert 8).

In consonance with his argument, some business groups under the umbrella of Lahore Chamber of Commerce and Industry (LCCI) joined hands with LDA in 2016 not only in supporting the LRR but also demanded that major roads of Lahore be declared 'industrial corridors' (Daily Times, 2016a). In this regard, the main justifications advanced by the LCCI were 'improved industrialization' and 'increased employment'. The support of the business groups was possibly because of their business interests in active coalition with the bureaucracy of LDA:

[The LCCI Vice President said that] new industrial zones/estates and clusters should be established away from the densely populated residential areas i.e. along the motorway or major roads to accommodate the industry relocating from the

residential areas. He said the area around Lahore Ring Road could also be used for this purpose (ibid).

NESPAK naturally supported the LRR project on technical grounds because many of the LRR technical reports were prepared by it (LRRRA, 2012h; NESPAK, 2005). However, the credibility of the reports prepared by NESPAK in other similar government projects has been in question by the higher courts because of the company's interests (The News, 2016a). The active coalition between the Punjab government and NESPAK by ignoring competitive companies in the market, along with other procedural irregularities, was noted by the PAC as well:

[The Chairman PAC] raised eyebrows for hiring NESPAK as consultants and overlooking competitive companies (Khan, 2014).

Therefore, NESPAK's interests in advancing the LRR were evident as reflected in its Project Manager's interview:

LRR's BCR and EIRR were good and viable ... we have conducted environmental studies as well and they are very detailed studies ... when we prepare PC1, we also submit the environment report to LRRRA. According to environmental study, LRR SL is a feasible project (Expert 10).

The Secretary of the Punjab Transport department, being the representative of the transport policies, naturally supported the LRR arguing:

Many studies have been conducted for building LRR so far. The project will reduce congestion in the city, benefit people and bring economic prosperity (Expert 20).

The Deputy Secretary of the C&W department, however, took a slight exception in clearly supporting the LRR arguing that 'C&W department's capacity should have been built instead of creating an independent LRRRA' (Expert 9). Another stakeholder DHA, being the most powerful organization in the LRR alignments decision-making process, argues that:

'our emphasis continues to remain on building our communities ... We envision our future urban dwellings to be more friendly, modern and green' (Defence Housing Authority, 2013b).

While responding to the creation of separate police force for the LRR, the Senior Superintendent of Police (Administration), Lahore, took a bold stance on the

advancement of LRR arguing that the police were not part of the alignments' decision-making process:

There is no synchronization in its [LRR's] design and route alignment ... On one side there is an urban city while on the other there are lands of the irrigation department ...The people living on the other side are very poor and they need to cross the LRR daily to earn their livelihood ... They were never consulted ... The police department was also not a part of the LRR decision-making process (Expert 14).

Furthermore, the creation of the LRR Authority curtailed the influence of many departments, such as LDA/TEPA and City District Government, in the LRR decision-making process [see GOPB (2011a)].

With a feeble stakeholders' *participation* in the third phase, the LRR project entered into the fourth phase of *continuation* in 2008 when the PML (N) government was sworn in after winning the general elections (The Nation, 2008). The PML (N)-led Punjab government's Chief Minister inaugurated the LRR-NL Saggian Interchange on July 30, 2009 (NESPAK, 2009c). On June 23, 2011, the government passed a bill for establishing an independent planning and execution body for the LRR called the LRR Authority:

The Lahore Ring Road Authority Act 2011 envisages establishment of a body corporate having perpetual succession and a common seal with headquarters in Lahore. The Government will appoint the chairperson who will be the chief executive of the Authority and will exercise such powers and functions as the Council may specify (Gilani, 2011).

More than 95 per cent of the work on the NL was completed in 2012 followed by the induction of separate police force for the LRR in 2013 (The Nation, 2013). The work on the NL saw unprecedented acceleration before the 2013 general elections. However, no progress on the project was witnessed after the 2013 elections till 2016 when the P&D department's Public Private Partnership Cell approved the construction of the SL:

The 22nd meeting of Public Private Partnership which was held on 15-02-2016 under the Chairmanship of Minister for Finance, Government of Punjab. The Committee approved [the] projects "Construction of Lahore Ring Road SL-I and SL-II, from Sui

Gas Town to Adda plot Raiwind Road Lahore, with a total length of 22.35 Km under BOT mode (PPP, 2016a).

The Frontier Works Organization (FWO) was successful in the bidding process as the PML (N)-led government awarded it the contract in 2016 to build the SL sections within next one year (Pakistan Observer, 2016). According to the Deputy Director (Planning), 'the main challenge during the construction of the NL was the acquisition of private properties, acquired under a legal process of the Land Acquisition Act (LAA) 1894' (Expert 7). The same challenge is likely to be faced by the SL as it will affect many private properties and housing schemes mainly the Bahria Town. The inadequacies of the centuries old land acquisition process under the Land Acquisition Act 1894 are reflective from the interviews and document analysis. The Deputy Director (Contracts) of the LRRRA, while commenting on legal and procedural inadequacies of the LAA 1894, stressed the need to apply the lessons learnt from the NL to the SL through 'post-construction analysis of the NL' (Expert 4). His argument was primarily focused on the reasons why people have grievances in the land acquisition process by the government.

The LRR stakeholders are affected in the land acquisition process on four thematic fronts: compensation, transparency, rehabilitation and resettlement. The entire process involves twelve stages as shown by Figure 20. The demarcation of the Right of Way (ROW) is the first step in this process in which 'the legal right of the LRR' was established (Expert 7). As part of preliminary investigations, the second step is to officially notify that the land is needed for public purpose under section 4 of the LAA 1894:

Whenever it appears to the [Provincial Government] that land in any locality [is needed or] is likely to be needed for any public purpose, a notification to that effect shall be published in the official Gazette, and the Collector shall cause public notice of the substance of such notification to be given at convenient places in the said locality (Government of Pakistan, 1894).

As step three, the notification is published in the official gazette and convenient public places (ibid). The preparation of the land sketches is the fourth step. This is followed by the fifth step involving the structures' assessment on the land to be

acquired. The sixth step involves the assessment of land prices by the District Price Assessment Committee. Following the price determination, the provincial government determines, at the seventh step, if the hearing opportunity (s5A) is to be provided to the affected property owners or not [s17(4)]. Under the land acquisition law, raising objections is a right of the affected property owners:

Any person interested in any land which has been notified under section 4, sub-section (1), as being needed or likely to be needed for a public purpose or for a Company may, within thirty days after the issue of the notification, object to the acquisition of the land or of any land in the locality, as the case may be (Government of Pakistan, 1894 s5A).

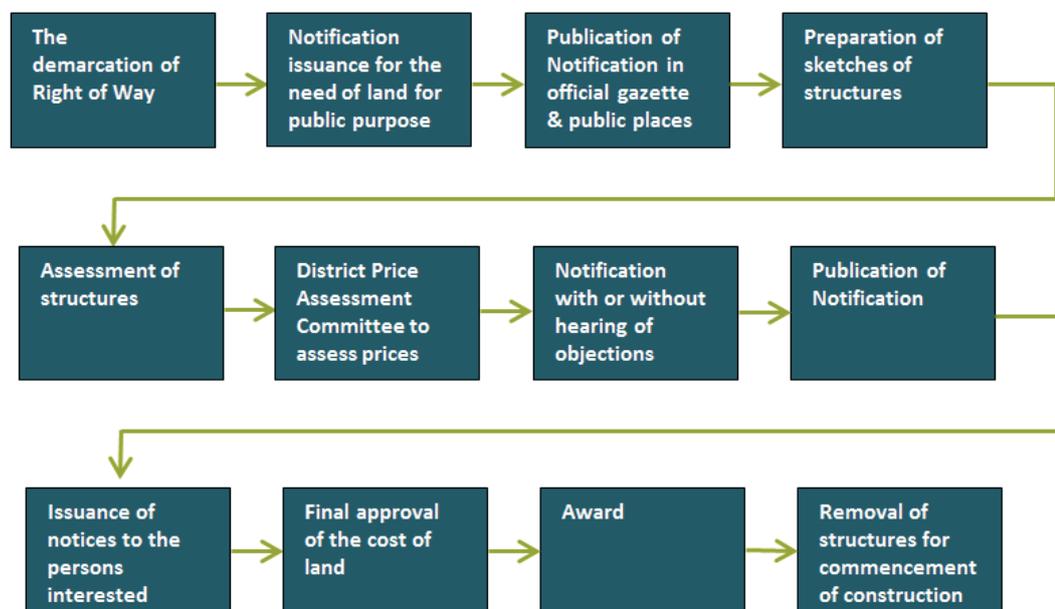


Figure 20: The pre-construction land acquisition process in the LRR [Prepared by the author based on Government of Pakistan (1894) and LRR (2012b)].

However, providing a hearing opportunity to the objections to be heard is within the power of the government [s17(4)]. Therefore, the government may proceed from step two to directly step seven in case it believes that providing a hearing opportunity is not required. This is applicable under certain circumstances such as when the land-owner himself does not want such a hearing. In that case, as step

eight, a notification under section 6 is issued and published in the official gazette. At step nine, a notice to affected property owners is issued:

Such notice shall state the particulars of the land so needed, and shall require all persons interested in the land to appear personally or by agent before the Collector at a time and place therein mentioned (such time not being earlier than fifteen days after the date of publication of the notice), and to state the nature of their respective interests in the land and the amount and particulars of their claims to compensation for such interests, and their objections (if any) (ibid, s9).

This is followed by the final approval of the cost of land which is step ten. The approval takes the shape of a formal legal document called 'award' at the eleventh step. Once an award is issued, all legal formalities are met and structures can be removed from the land followed by the commencement of construction at step twelve. The rules appear to be quite coherent, but the net result is decision-making by the most powerful actors.

The LRR data shows that the stakeholders' participation in the four phases of initiation, preparation, participation and continuation has been very weak because the strategic level decision-making was 'non-negotiable' as shown in Figure 21. This decision-making was done by the politicians and the army in which the stakeholders had no role to play. The stakeholders were involved under the prevailing rules and regulations in the preparation, participation and continuation phases which were all more or less feebly negotiable. The non-participation of the stakeholders at the strategic level decision-making on alignments and routes made the entire decision-making process extractive.

The experts from the government sector supported the government version of the LRR benefits, which is understandable since they are themselves government. The real stage where people were exploited was the alignment changes strategic stage in which the most powerful actors protected their interests through political and military power. The planning process of the LRR, therefore, makes the political governments, the DHA, the FWO and the military winners. All other stakeholders, excluding those with minor level interests such as local property dealers and some housing societies, are losers because they were never consulted and the decision

were imposed on them within and outside the prevailing rules. The policies of the PML (N)-led government met weak resistance because the affected people thought that the government is very powerful and they are very weak. Another reason for

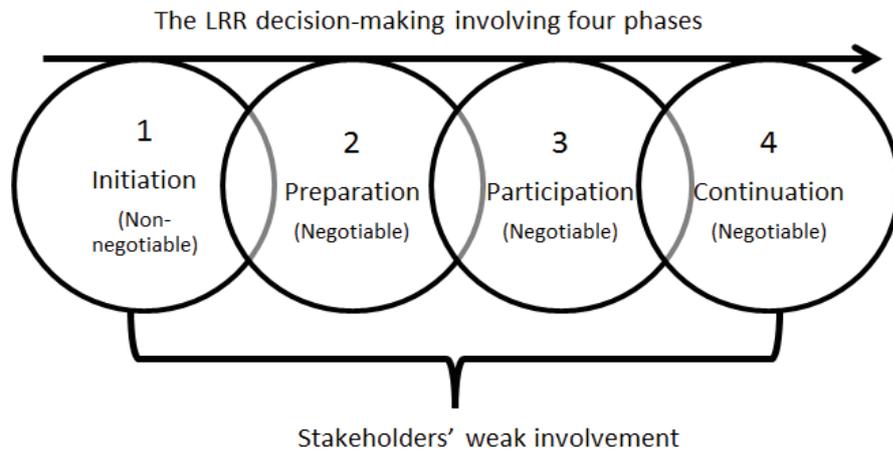


Figure 21: The weak involvement of stakeholders in all four phases of the LRR project

minimal resistance was unawareness among the affected stakeholders about their rights. Any resistance was overpowered by the government's power in which the most powerful were eventually declared as 'the most competent'. The same principle can be seen in the FWO's qualification for getting the SL contract.

8.3. Part 2: Pragmatism in LRR-SL

This section follows the third phronēsis theme 'defining pragmatics of the mind's eye' to answer the third secondary question: 'what is the discourse behind the claims of economic growth'? As reflected in Chapters 3 and 5, the discourse generates values, perceptions and norms in aligning the direction of the transport policies. In this regard, the sub-themes *pre-suppositions* and *linguistic structures* advance the pragmatism to define the context in which the decisions are taken.

Economic prosperity is the main discursive storyline to justify the investment in Pakistan's roading projects. The construction of the LRR was strongly supported by different governments as a project that will bring economic prosperity by relieving

congestion, reducing travel time and increasing accessibility to suburban Lahore (LRR, 2011, 2012c, 2012g). The PML (N)-led government continues to advance roading infrastructure in Pakistan under the 2013 elections manifesto theme *strong economy-strong Pakistan* (PMLN, 2013). The government dubiously envisions *a huge infrastructure gap* (Planning Commission, 2014a, p. vii) that needs to be filled *'to see Pakistan among the ten largest economies of the world by 2047 – the centennial year of [its] independence'* (ibid, p.3). The government reports on the LRR benefit-cost analysis suggest that:

Economic justification of the subject project has been established by showing its profitability in terms of excess of benefits to the economy over project costs by using the discounted cash flow technique. The projected stream of economic benefits over the economic life of the project has been compared to the estimated stream of Project economic costs by bringing the two to a uniform basis through the process of discounting (PMU & NESPAK, 2008b, p. 46).

During its long history (Dawn, 2002, 2003a) of alignment changes (Dawn, 2003b, 2005b), the LRR project has traditionally been justified on the basis of achieving economic prosperity (Business Recorder, 2004b) particularly for the poor (Dawn, 2006). The storyline 'economic prosperity' has been the same both in the PML (Q) and PML (N) reigns. The PML (Q) Chief Minister, for example, claimed that the LRR would strengthen 'provincial economy' and raise 'quality of life of the people' (Business Recorder, 2004a). The same storyline was advanced by the PML (N) Chief Minister stating that the LRR will 'leave a positive impact on the provincial economy' (Dawn, 2009). For this purpose, the project was put under 'special infrastructure category' (Geo, 2009) for its early construction (Geo, 2010b) alongside allocating huge funds for it (Geo, 2010a) for achieving the objective economic prosperity. The main discursive storyline *economic prosperity* relies on two main themes: conventional economic benefits, and wider economic benefits of the LRR project. The first theme, *conventional economic benefits*, relies on three main sub-headings or sub-storylines: travel time saving, vehicle operating costs (VOC) and congestion relief [see, for example, LRR (2012g, p. 1)]. The LRR reports term the

conventional benefits and the WEBS as *tangible* and *intangible* benefits respectively:

Benefits associated with the construction of the proposed road [LRR] have been classified into 'tangible' and 'intangible' benefits. Tangible benefits are those which can be quantified and to which a monetary value can be assigned, whereas intangible benefits, though socially desirable, are not quantifiable in monetary terms (LRR, 2012f, p. 1).

Travel time saving: The documents reviewed, experts' interviews and the media reports reveal the perception that the LRR will bring tremendous *travel time saving* (LRR, 2011; PMU & NESPAK, 2008a) along with *fuel saving* (Expert 6). The travel time saving storyline rests on 'ensuring smooth traffic' (Business Recorder, 2004b) which will then act as a determinant of economic prosperity because people and freight will move quickly and smoothly. In this regard, the Chief Minister claimed that the LLR would result in 'ensuring smooth flow of traffic, infrastructure development, strengthening provincial economy and raising quality of life of the people' (Business Recorder, 2004a). Some pre-suppositions generally prevail in the LRR that the *travel time and fuel saving* benefits will be huge from the LRR (Expert 5) that will bring *lots of foreign exchange* (Expert 6) because the travellers will be able to *bypass the inner [congested] city* (Expert 7). The LRR experts also argued that '*all issues such as rising population, traffic congestion and other allied issues can only be addressed by building LRR*' (Expert 4) because it will increase *employment opportunities* (Expert 5) by *saving 40-50 per cent of travel time* (Expert 7). A NESPAK study also assumed *25 per cent travel time saving* (PMU & NESPAK, 2008b, p. 49) in line with JICA's earlier report in which travel time saving was perceived by *keeping much of the through traffic out of the city's urban streets* (JICA, 2006, p. 7/16). The discourse in favour of travel time saving was further strengthened by a NESPAK official articulating that *it [LRR] will save travel time* (Expert 10).

However, the travel time saving argument was challenged by alternative discourses advanced by the residents, the politicians and some experts. Pointing out the similarities of roads justifications, a senior politician from Pakistan Movement for

Justice Party (PTI) argued that, like the LRR, many underpasses in Lahore were built to save travel time, but *they [instead] created many bottlenecks during peak hours* (Politician 1). His discourse was underpinned by another political leader of the PML (Q) who viewed the entire LRR project as a *political stunt* of the PML (N)-led government just to have *easy access [and travel time saving] to Raiwind* [home of the PML (N) leaders] (Politician 2). A local resident perceived the expansion of LRR's Bhatta Chowk as *complete destruction of the indigenous community and traders* (Resident 1) supported by another resident who treated it as *government's hooliganism* in snatching away their properties (Resident 2). To them, the travel time saving argument carried no meanings because their *homes and shops were no more there* (Resident 1). The assertive policy of demolishing peoples' properties without paying them *market based compensation* (Resident 2) made the travel time saving argument irrelevant for the local population who viewed it as *the government's exploitation through force* (Resident 1) as reflected in the media as well:

Landowners carrying placards and raising slogans against the authorities is a common sight at Bhatta Chowk. They are up against the government plan to widen the bottleneck. Though landowners are raising hue and cry against the project, officials defend the expansion (Dawn, 2011a).

A politician from PTI held *the Chief Minister's directives* as responsible for the sufferings of the affected people, arguing that *the technical recommendations were ignored by the government* in advancing their agenda of roads expansion in Lahore (Politician 1). The affected landowners resisted the LRR construction, but were *overpowered by the LRR authorities* (Resident 2) because they did not have *access to the Chief Minister* (Resident 1). The government's assertion is reflective from the linguistic structure of the Staff Officer to the Chief Minister's statement that the *'[public and private] land is a government property and it can be used to serve people's interest'* (Dawn, 2011a). Endorsing the government's extractive policy on the LRR, a professor of planning argued that *'yes, the travel time saving will be there, but for whom'?* (Expert 2) His argument drew attention to the question of the

real beneficiaries of the travel time saving which *the local community* was not (Resident 1).

Vehicle Operating Costs: VOC is the second sub-storyline in the LRR in evaluating its conventional economic benefits. The VOC benefits were advanced mainly by NESPAK's economic viability report arguing that '*a major part of the economic benefits from the [LRR] project implementation is expected to be in the form of VOC savings*' (PMU & NESPAK, 2008b, p. 50). The VOC storyline mainly relies on '*the physical values of fuel consumption, engine oil consumption, tyre wear, maintenance cost, depreciation, interest and wages*' (LRR, 2012f, p. 5). This storyline addresses an ordinary citizen's employment and travel concerns and, therefore, get significant coverage in the LRR documents (LRR, 2011, 2012f; PMU & NESPAK, 2008b). The discourse was further strengthened by the views of some experts who saw *lower vehicle operating cost and fuel saving* (Expert 5) due mainly to reduction in *wear and tear of vehicles* (Expert 10) and *fuel consumption* (Expert 7) as major economic benefits of the LRR. The storyline is supported by several technical reports presenting VOC as a main economic benefit of the LRR. For example, an LRR report builds the VOC argument as:

The savings are measured on the basis of reduction in vehicle operating costs and reduction in travel time resulting from increase in operating speeds on account of Lahore Ring Road (Southern Loop) construction as well as resultant reduced congestion and bottlenecks on the existing roads network (LRR, 2012f, p. 5).

The discourse on the conventional benefit of the VOC storyline was, however, challenged by alternative discourses created by the affected residents, the politicians and some experts. An affected resident argued that *we are not allowed to take our motorbikes on the ring road* (Resident 3) because *this road is meant for vehicles only* (Resident 2) so primarily *the benefit goes to the vehicle owners* (Resident 1). For some affected residents, therefore, the practical significance of the VOC storyline carried no importance:

I am using katcha [unpaved] road on my way to work for so many years. I am still using the same route because the bicycles are not allowed on the ring road. The

bus stop is far away from my home. For me, it [LRR] hardly makes any difference (Resident 2).

An analysis of the media reports suggest that the technical argument such as the VOC and travel time saving could not convince the local population because, for them, one of the real contextual issues is earning their livelihood. The discourse advanced by the affected residents was also supported by planning academics of the Engineering University of Lahore. In this regard, a planning academic argued that *Lahore is crossing its boundaries* so the perceived VOC benefit will in fact *increase urban sprawl* (Expert 2) supported by another planning professor who saw it a benefit for *a particular class of people* (Expert 1). A senior opposition politician from PTI also questioned the authenticity of *the technical arguments* floated by the government to advance the LRR (Politician 1) which, according to media reports, is projected to benefit *5.54 lac³⁰ vehicles daily* (Khan, 2014). He questioned the authenticity of the figures [regarding VOC] in the media and [NESPAK & LRRRA] in reports blaming the Punjab government for *issuing Chief Minister's directives first and the technical reports later* (Politician 1). Another issue raised by him was *the regulation of the housing societies* (ibid) in Southern Lahore because the house owners living in these societies will benefit from the VOC the most.

Congestion relief: Congestion relief is the third sub-storyline in advancing the LRR project. In this regard, the C&W Minister claimed that 'after the construction of the Ring Road, heavy traffic would not enter the city, saving it both from noise and air pollution' (Dawn, 2004b). Based on the same storyline, the Chief Minister justified the advancement of the LRR arguing that 'there were around one million registered vehicles in Lahore and their number was increasing rapidly, necessitating the need for expanding the road network in the city' (Dawn, 2004d). As a result, the LRR was conceived as 'a project which promises to change the outlook of the city of some seven million people where traffic jams are a common phenomenon' (Dawn, 2004e) 'to ease load on urban roads' (Dawn, 2005b) alongside providing 'smooth flow' (Business Recorder, 2004a) and 'better communication facilities to the masses'

³⁰ 1 lac is equal to 100,000.

(Dawn, 2009). In quantifying the conventional economic benefits, the NESPAK reports advance the argument that the LRR will reduce *congestion and bottlenecks on the existing roads network* (PMU & NESPAK, 2008b, p. 50). Another report by JICA also identified *congestion in urban areas and insufficient investment in the roads* as the main problems of Lahore's transport planning (JICA, 2006, p. 2/28). Highlighting people's perceptions of travel, another JICA study identifies congestion as a big transport problem of Lahore (JICA, 2011, p. 2/121). The LRRRA reports suggest that congestion relief will help save the *'residual/salvage value of the roads and structures at the end of the economic life of the [LRR] project taken as 20 years for the economic analysis'* (LRRRA, 2012f, p. 2). Some experts argued that the issues of *traffic jams and congestion* (Expert 7) are very serious and that the construction of LRR will *reduce congestion* (Expert 10) in Lahore. Some LRRRA experts related the rising congestion with *the development of housing societies around Lahore* (Expert 5) due to which *traffic never stops* (Expert 6) so *it's [LRR's] very first purpose is to address the traffic congestion issues around the periphery of the city* (Expert 10). The discourse in favour was strengthened by another expert who argued that *the congestion in the city will come to an end* (Expert 4) by the immediate construction of the LRR.

Some experts, however, confronted the congestion relief storyline arguing that roads do not necessarily reduce congestion. An expert criticised the NESPAK's reports and their data on congestion relief arguing that *they made so many conclusions on the basis of guess work* (Expert 11) strengthening a politician's argument that *nobody has so far done any visionary planning for Lahore* (Politician 1) for reducing congestion. The Chief Engineer of the P&D Board also criticised NESPAK for suggesting the *NL construction through very congested area* (Expert 8). It could have been avoided to actually reduce congestion during the construction phase. Some planning academics argued that the LRR *may lead to further congestion, more sprawl and expansion of the city* (Expert 2) because *roads are not the sustainable solutions* (Expert 1), particularly when *housing schemes are located 40 kilometres beyond the city [centre]* (Politician 1). Criticising the LRR's alignment

through the DHA, an expert argued that *the government should have taken into consideration the city's requirements in next 50 years* (Expert 8) for *reducing congestion* (Expert 1) failing which *LRR will also turn into an ordinary road and we will not be able to achieve its [congestion relief] purpose* (Expert 8). Some experts articulated that *many study areas, that needed in-depth study, were not thoroughly studied* (Expert 11) because of *active political interference in the project* (Expert 9) so congestion relief will benefit *the DHA phases* (Expert 8) and *the car owners* (Expert 7) of the adjacent housing societies.

The second theme *wider economic benefits* constitute four sub-themes as reflected in the LRR documents: travel comfort, increase in economic activities, increase in land values and employment opportunities (PMU & NESPAK, 2008b, p. 47).

Travel comfort: The *provision of comfortable and peaceful travelling facilities* (Chief Minister House, 2013) to the people is an important storyline in advancing the wider economic benefits of the LRR. The travel comfort argument is present both in the LRR documents and media reports. The storyline has generally been advanced on the argument of 'ensuring smooth travelling' (Business Recorder, 2004b) by preventing 'traffic problems' (Daily Times, 2004a), providing 'better transport facilities' (Dawn, 2004d) and ensuring 'better communication to the masses' (Dawn, 2009). However, criticizing the car-friendly policies of the government, a citizen of Lahore Muhammad Asif noted:

RECENTLY when I decided to make my way at Ring Road, Lahore, from the 32-chowk side, I was astonished to note that some traffic wardens were on duty to divert motorcyclists to change their lane. I stopped for a while and reminded the duty-bound traffic wardens about the motto of a former chief minister of Punjab that "Ring Road is a project that would provide ease to the general public". All such mega projects facilitate elite families who use four wheelers. When, on the insistence of the traffic wardens, I changed my lane to the service road, I viewed a great rush of vehicles there (Dawn, 2013).

The storyline has gradually devolved into the LRR planning documents from some earlier floated themes such as *roads reliability* (JICA, 1995, p. A 4/4), providing *proper level of services* (JICA, 2006, p. 2), and *efficient mobility of people and goods*

(JICA, 2012, p. 2/24). Therefore, the objective of *efficient road facility* (LRR, 2012g, p. 30) is primarily related with *travel comfort* (PMU & NESPAK, 2008b, p. 47) with which one can earn his *average annual income* (LRR, 2012f, p. 4). Some experts argued that the LRR will provide *travel comfort* through several factors such as *increased goods and peoples' trips* (Expert 6), *reduced travel time* (Expert 5), and by avoiding *vehicles' wear and tear* (Expert 4), alongside promoting *aesthetic values* (PMU & NESPAK, 2008b, p. 45).

The arguments advanced in favour of the sub-storyline were challenged by the media, local residents and the experts by advancing *the local discomfort* argument involving *acquisition of land at low rates* (Pakistan Today, 2011), *relocation of people and their businesses* in adjacent housing schemes (LRR, 2016) and *resettlement of illegal encroachers* (Dawn, 2011a). In this regard, a planning professor argued that *the LRR planning needs to be inclusive and not exclusive* (Expert 2), not only in rehabilitating people but also in *providing them equal opportunities* (Expert 1) to ease out local discomfort. The experts' responses suggested the discourse in favour of *travel comfort* vis-à-vis the counter discourse in terms of *local discomfort* was a kind of *Pareto principle* in which some people were made better-off by making some of them worse-off (Barr, 1993). In this regard, a planning professor argued:

Although it [LRR] can bring economic boost for a particular area for particular class of people but it is not meant for normal [common] class [people] ... It is not focusing the whole city because all kind of people cannot be benefitted from this (Expert 1).

The arguments suggest that travel comfort is likely to be achieved by the residents of the *adjacent housing societies* (Politician 1). However, the real issues for affected residents are forcible land acquisition at lower rates, relocation of residences and businesses and an uncertain future for them and their families.

Increase in economic activities: This sub-storyline is based on the establishment of industrial zones along the LRR which would increase the overall economic activities in the city. In this regard, the theme of *unleashing the full economic potential of the*

urban areas was presented in the Punjab's Vision 2020 (Government of the Punjab, 2004, p. 51). Accordingly, the Chief Minister claimed that the LRR would 'create employment and would prove to be hub of economic activities' and 'complement industrial zones' (Business Recorder, 2004b) alongside playing an important role in 'the rapid development of the province and uplift of the masses' (Dawn, 2009). The argument of linking 'industrial zones with other cities' (Business Recorder, 2004b) was presented as an impetus towards increasing economic activities which will help in 'strengthening provincial economy and raising quality of life of the people' (Business Recorder, 2004a).

The discourse in favour of the sub-storyline was, therefore, advocated by the then PML (Q)-led government. The then Chief Minister articulated that the LRR would *complement industrial zones* (Daily Times, 2004) and *decrease poverty gap* (Business Recorder, 2004b) by acting as a *hub of economic activities* (Daily Times, 2004). He also argued that it will '*strengthen provincial economy*' and raise '*quality of life of the people*' (Business Recorder, 2004a) by bringing about *an industrial and economic revolution* (Daily Times, 2006). In line with the Chief Minister's vision, some studies suggested that Pakistan is *one of the fastest growing economies in the region* so it needs to keep pace with the roads infrastructure requirements (Urban Unit, 2008b, p. 2/5). The same discourse was strengthened by the PML (N)-led government. Its Chief Minister advanced the same discourse on the premise that '*setting up of an economic development zone is of utmost significance for promoting financial and business activities along Lahore Ring Road*' (Daily Times, 2012). He termed it as the *biggest public welfare project* in terms of generating economic activities (Business Recorder, 2012). The same discourse is reflective in the LRR reports in which the SL's *connectivity with the Sunder Industrial Estate* (PMU & NESPAK, 2008b, p. 63) and *the establishment of industrial zones along the LRR* (Dawn, 2016) are the main themes in connecting the LRR with increased economic activities. For this purpose, the LRR suggested appointing *transaction advisors for [evaluating] the economic viability of the project* (Expert 6). Accordingly, *the*

economic zones were identified and land was acquired (Expert 5) in the SL with the belief that the *economic activity will definitely be increased* (Expert 8).

The discourse in support of the sub-storyline was confronted with a counter discourse by the politicians, the media and the experts. Some experts took a different view arguing that *this project will not bring economic development before completion* (Expert 11), because *this is a political project* (Expert 9) and the NESPAK studies are *not of an international level* (Expert 8). Some experts argued that the project was *conceived, [and then] decided* (Expert 2) by the few and that the NESPAK studies *needed to be done initially rather than in the ends* (Expert 8). Therefore, the storyline of *increasing economic activities* was challenged on the basis of the authenticity of the NESPAK reports (Khan, 2014; The News, 2016a). The interests of NESPAK and its active coalition with the government was further highlighted by a politician who argued that the government *'can't claim to promote economic growth [by building LRR] particularly with a mind of minting money out of the project'* (Politician 1). The argument of increasing economic activities was also challenged by the PAC audit report criticizing the award of contracts to the National Logistic Cell (NLC) and FWO in violation of rules (Khan, 2014), supported by the argument that the government *can't think beyond their personal interests* (Politician 1). Against the backdrop of the power relations involved in the award of contracts, another theme surfaced that the LRR can bring *economic boost for a particular area for particular class of people* (Expert 1), but not for *the common people and the city as a whole* (Expert 2).

Increase in land values: The LRR and NESPAK reports on economic feasibility of the project treat *increase in the land values in the immediate vicinity of the LRR* as a wider economic benefit (PMU & NESPAK, 2008b, p. 47). The earlier reports also document an increase in land values in many transport studies on Lahore. It was, for example, argued that the road projects complement people's mass movement due to which *land price of the surrounding area naturally increases manifold* (JICA, 2012, p. 3/20). These arguments strengthen the discourse in favour of increasing the land

values in the presence of Lahore's active real estate market which saw a *sharp healthy growth* immediately after the completion of the NL (Haq, 2013). The land developers and the property dealers keep watching the increase in the land values very actively through their websites and blogs (Lahore Real Estate, 2012; Zameen Media, 2015). *It seems like the stakeholders of Lahore's real estate market have been waiting forever for the SL* (Zameen Media, 2015) because it impacts the land values and their real estate businesses. The discourse is further strengthened by the demands of the LCCI and the Pakistan Industrial and Traders Associations Front (PIAF) regarding *the establishment of economic zones along the LRR* (Business Recorder, 2016). The real estate market's discourse on the advancement of the SL was supported by the business and trade bodies, such as LCCI and PIAF, suggesting establishing *new industrial estates* (Daily Times, 2016a) *through public-private partnership by motivating private sector land developers* (Dawn, 2016). In addition to *the idea of gated communities and migration from smaller cities* (Haq, 2013), other important factors for an increase in land values are *the establishment of economic zones* (Expert 5), *continuous expansion of housing societies* (Expert 6) and *rapid urbanisation* (Expert 4) along the SL. There are also some other factors associated with increasing the land values such as *uninterrupted traffic flow without any effect of encroachments* (Expert 4), *link to Lahore Airport* (Expert 8), and a *provision of a major link for bypassing the central city* (Expert 7).

The discourse in favour of increasing land values was, however, challenged by the politicians and the experts. It was argued that *many [land] mafia people* (Expert 1) and the army owned DHA *pressurised governments to pass the LRR closer to their lands* (Expert 9) so as to *increase their land values* (Expert 2). Two main housing societies, DHA and Bahria Town, are the trend setters in lands' prices hike in Lahore (Haq, 2013). *'Land prices in [these] societies have increased more than 100%. The DHA is taking the lead'* (ibid) along with the land prices in Bahria Town Lahore which *increased by an impressive 13.91%* despite the possibility of the SL cutting through it (Haq, 2016). A senior PTI leader argued that *the rules and regulations on controlling the housing schemes are weak* (Politician 1) making the land prices increase by

certain housing societies such as the DHA in which *the increase in the price of a one-kanal³¹ plot was 36% for the first 10 months* in 2013 (Haq, 2013). *The big housing societies acquire lands in the suburban areas at lower prices* (Expert 2) and then *make roads at the government expenses* (Expert 1) and then *sale out the same lands at very high rates* (Expert 2). This is very much a political and economic nexus between *the powerful housing societies and the government* (Politician 1). Therefore, the storyline of *increase in land values* as a wider economic benefit of the LRR for the entire city is weak.

Increase in employment opportunities: The PML (Q)-led government had been a strong proponent of this storyline arguing that *the LRR would create and increase employment* (Business Recorder, 2004b; Daily Times, 2004). In this regard, its Chief Minister claimed that the LRR would 'create employment' (Business Recorder, 2004b) and provide people with 'all facilities, development and jobs' (Dawn, 2006). However, the imposition of the LRR toll tax was perceived as an anti-labor class measure by the government because it will increase transport fares affecting mainly the poor (Dawn, 2012). Many transport studies on Lahore suggest that the *employment opportunities* increase with *the increase in urbanisation* (JICA, 2012, pp. 3/36-37) which includes, but is not limited to, roads. Therefore, '*increase in employment opportunities during the construction and post-construction period*' was treated as one of the perceived wider economic benefits of the LRR (PMU & NESPAK, 2008b, p. 47). It was articulated that *accessing jobs* was increasingly becoming difficult due to *traffic jams, rapid urbanisation and motorisation* (Urban Unit, 2008b, p. 4/2). Therefore, *constructing peripheral road and improving major radial routes* (LRRRA, 2012f, p. 3) would *reduce traffic jams* (p.2) and *increase employment opportunities* (p.61). The same discourse was strengthened by the LRRRA officials who argued that *the development of economic zones would boost employment opportunities* (Expert 7), *not only along the SL* (Expert 6) but *along the entire LRR and other connecting arteries* (Expert 5). Some business groups also

³¹ A kanal is equal to 506 square metres of land approximately.

argued vigorous industrialisation along the LRR through the establishment of economic zones would *help generate employment opportunities* (Daily Times, 2016b).

The discourse was countered by several angles from informed interpretations by the experts and the politicians raising counter-storylines. It is hard to expect *continuing employment increase along the LRR* (Expert 11) because *NESPAK data is not reliable* (Expert 9) and *the government has its own interests in the project* (Politician 1). As the project is still incomplete, it is *hard to expect increase in employment* (Expert 11) because *the government does not have a formal vision* (Politician 1) as to how will it *enhance income per capita* (Expert 2). Some experts argued that there can be *a temporary rise in employment level* (Expert 2), but *it will not be sustainable* (Expert 1) because there are many *powerful housing societies* (Expert 15) along the LRR and there is *inherent corruption in the roads sector* (Expert 19). The counter-storylines overshadow the discourse in favour of an increase in employment opportunities on the grounds that the government is predicting a rise in employment opportunities on the basis of guess work and based on the NESPAK reports whose reliability is in question. Therefore, the storyline of increasing economic opportunities by building the LRR is dubious as it does not sufficiently explain how this objective will be achieved.

8.4. Conclusion

The participation of the stakeholders in all four phases of the LRR decision-making has been feeble because they were not meaningfully consulted at all. The LRR decision-making was finalised by the politicians and the military leadership having interests and responsibilities in the project. Every successive government was drawn into initiating and completing this mega project because of various political and economic interests in which a pseudo-context was generated, and therefore allowed the actual context to be ignored. The policymakers ignored the actual contextual issues which caused long project delays and alignment issues. Changing alignments on the basis of political and economic interests and the awarding of

contracts to the NESPAK, NLC and FWO indicate a strong political-military coalition. Therefore, all four phases of the stakeholders' involvement in the decision-making process are weak.

The strategic issue of 'whether the LRR be built or not' was never discussed with the stakeholders. This indicates a dictatorial policy approach towards advancing this road using directives from the Chief Minister. The policy process mainly relies on the previous studies done by the international agencies and organisations and later continued by NESPAK. However, most of these studies have relied on the BCR and quantitative techniques in which it is hard to see value based planning practices involving the public at large. This approach has altogether ignored the contextual policy issues such as displacement of people, very low payment to the affected property owners, DHA's power, no financial assistance to the illegal encroachers, lack of political debate and the out of merit award of contracts to the powerful construction companies. It is, therefore likely that the LRR project, on its completion, will cost more than the expected benefits. Even these benefits will be reaped mostly by the people living along the SL, particularly the DHA, Bahria Town and other adjacent housing societies. Lack of stakeholders' involvement has made the entire planning process in the SL dubious and extractive in which the powerless stakeholders were exploited by creating a pseudo-context far from the actual context. The powerless stakeholders resisted but the powerful overpowered them through rules and regulations under the legal and administrative framework.

The pre-suppositions and linguistic structures of the storylines advanced by the supporting and opposing discourses suggest a huge gap between the claims of economic growth made by the government and their contextual interpretations by the local community, the experts, the politicians and the media. These claims made by the government were challenged by different opposing discourses supported by facts, figures and contextual realities. However, their voices could never become the part of those pre-suppositions and linguistic structures that built and advanced different storylines and sub-storylines in support of achieving economic growth. The

pragmatics of the discourse behind the claims of achieving economic growth were framed and designed by the Punjab provincial government and the powerful organisations such as the DHA and FWO. Therefore, the government and the powerful organisations defined the pragmatism required to achieve economic growth and prosperity by building the LRR. This approach disregarded the literature, the theory and the data. The discursive reality of the notion of economic growth was defined by power and technical arguments by ignoring the actual contextual issues through advancement of storylines which could gain popularity among the public. As a result, the land prices in many housing societies increased many times along with building public confidence of investing in these housing societies. This suggests that the pragmatism behind advancing the LRR was never really about achieving economic growth, but protecting and advancing the political and economic interests of the provincial government and the powerful organisations working in coalition with it. The claims made behind achieving economic growth by building the LRR are not only weak but misleading as well.

CHAPTER NINE

Discussion

The purpose of social science is not to develop theory, but to contribute to society's practical rationality in elucidating where we are, where we want to go, and what is desirable according to diverse sets of values and interests (Flyvbjerg, 2001, p. 167).

9.1. Introduction

This chapter comes back to answer the research question: "How are arguments for economic growth advanced to promote new road projects"? The findings of the research question are encapsulated by theoretically applying the Phronetic Planning Research approach. However, this concept is expanded beyond the confines of four value rational questions by suggesting a deeper analysis of the rationality-power relationship in the decision-making process. This is delineated with a view to explaining those contextual insights receiving less attention or missing in the Phronetic Planning Research approach in relating roads investment with economic growth.

The chapter follows a three-step procedure (Flyvbjerg et al., 2012, p. 6). At the first step, it identifies the planning practices in transport policies and processes in the M2PP and the LRR-SL projects. The second step undermines these practices through problematization of the tension points in the transport policies and planning processes of the two case studies. Finally, the third step helps to develop new practices capable of better handling the contextual issues in the transport planning and decision-making in New Zealand and Pakistan. Based on these three steps, the chapter is divided into four main sections. The first section analyses the policy initiatives towards roads investment in New Zealand and Pakistan. This section first discusses the key findings relating roads investment with economic growth in the M2PP and the LRR-SL projects. It then presents a comparison of the policy similarities and dissimilarities between the M2PP and the LRR-SL. The second section delineates the dynamics of political and economic power in implementing the road projects in New Zealand and Pakistan. It also draws a comparison of how

the political and economic motives attract the policymakers in initiating the two projects. After summarizing the key findings from the M2PP and the LRR-SL, this section also presents contextual analyses of political and economic power in the M2PP and the LRR-SL decision-making process. The analyses are based on an account of similarities and dissimilarities in the exercise of power, by influential stakeholders, in the urban decision-making in the two cases. Both the sections identify dubious practices at the policy and procedural levels.

The third section explains the associated discourse in policy implementation in the contexts of New Zealand and Pakistan. The findings of the discourses in the M2PP and the LRR-SL are summarized and then compared with a view to identifying the similarities and dissimilarities in the two projects. The discourse undermines the earlier identified dubious practices through problematization of the tension points by gaining deeper discursive insights into the policy and planning issues in New Zealand and Pakistan. The fourth section presents theoretical insights missing or receiving less attention in the PPR in dealing with the contextual challenges influencing urban transport planning. Based on the New Zealand case study findings, this section first suggests theoretical insights for developed countries and then follows the Pakistan case study findings in suggesting similar insights for developing countries. Finally some comparative insights are presented which need to be incorporated in handling the contextual challenges associated with urban transport planning in the two countries in relating roads investment with economic growth.

9.2. Understanding the policy approach towards achieving economic growth through urban roads investment

The aim of this section is to analyse the policy initiatives towards roads investment in New Zealand and Pakistan. Two main policy issues may be observed in the M2PP case study. The first issue is the arguments of economic benefits advanced by the National-led government in which the M2PP is justified on the basis of better

'strategic fit and effectiveness criteria' (NZTA, 2012b, p. 15) supported by the BCR-led policy aimed at achieving enhanced economic growth and productivity (SAHA, 2009, p. 10). This policy approach is instrumental in nature because it quantifies the M2PP benefits vis-à-vis the costs incurred by assigning numerical values to both costs and benefits (ibid). The second issue is the views of the M2PP benefits by the local people, organisations and politicians who do not accept the 'strategic fit', 'effectiveness' and BCR-led justifications arguing that this approach is unable to accommodate their concerns which are based on local and contextual issues (Pickford, 2013). The strategic fit and BCR criteria strengthen the justifications advanced by the government on economic and technological fronts. However, the gap between these justifications and the views of the local community was widened by the speedy advancement of the M2PP, as being *physical capital* (Domar, 1946; Solow, 1956), by assuming average BCR value for the project which, at the individual level, remains less than one (SAHA, 2009, p. 33).

The perceptions gap makes the government's policy practices and justifications weak in linking the M2PP with economic growth. The reason is that the government's policy approach is predominantly based on *instrumental rationality* (Flyvbjerg, 2004). It is because the justifications advanced mainly rely on quantitative tools (Næss, 2006) such as BCR, strategic fit and effectiveness criteria (Pickford, 2013). In this regard, the value based practice of consulting the Kapiti people actually further strengthened the instrumental approach in transport policymaking in New Zealand. It was because people were consulted at the operational level only. The affected people view the policy practices very differently because of displacement of people, community severance, changed landscape and actually a lower BCR. The gap between arguments and perceptions create distrust in the government, fear of being marginalised by the powerful and advancement of a deterministic mind-set in the transport policy practices. The impacts of such values and norms are both short term and long term for the New Zealand's future infrastructure projects, economy, transparency and policy culture in terms of transport policy values and beliefs. It is because the quantitative tools of measuring

economic benefits of road projects, such as BCR, have the tendency to neglect many important socio-economic externalities (Preston & Holvad, 2005; Root, 2003). Although, there is a coherent transport policymaking framework in the country at the national, regional and local levels, the argument of achieving economic growth by building the M2PP remained weak. As context cannot be reduced to rules (Clegg, 2006a, p. 171), the contextual issues undermine the M2PP benefits despite the presence of an effective transport policy framework in the country.

In case of the LRR, six issues need attention: (1) frequent changes in alignments by the successive governments on technical-cum-political grounds, (2) the absence of a formal transport policy at the federal and provincial levels which could guide investment in the LRR, (3) incoherence and haphazardness at the legal and administrative fronts in making and implementing transport projects, which have been used to develop several packages to bypass lengthy bureaucratic procedures of approval, (4) the top-down approach of transport decision-making in which the opportunities of providing input, before the political and military leadership, are limited within the prevailing state apparatus, (5) the voices of local people and community organisations are almost missing in the LRR decision-making. This approach has resulted in a culture of *just preparing a plan without focusing on the implementation challenges*, and, (6) similar to the strategic fit criteria in the M2PP, the project assessment profiles were dubiously prepared and supported by equally dubious EIRR, sensitivity analysis tests and other BCR-led techniques conducted by NESPAK (LRR, 2012g; PMU & NESPAK, 2008b). In the absence of data about the population, traffic and city level economic growth, these techniques are questionable.

Like the federal level transport policy, provincial transport policies also lack a policy direction. The practice of *preparing hollow plans* is evident from the overly-stated visions whose targets were never attempted to be achieved, such as *envisaging Punjab to be a developed and industrialized province by 2020* (Government of the Punjab, 2004). Successive Punjab governments paid less attention to the

implementation of the previous governments' transport plans because of their political and economic motives. This makes urban planning in Pakistan nothing more than wishful thinking based on feeble visions (Ellis & Fang, 2007, p. 7); similar to what Flyvbjerg et al (2012, p. 6) call 'dubious practices within policy and social action'. The widening gulf between the past decisions and present actions created public belief systems in which the powerful is perceived as the beneficiary of all kinds of transport investments. Such policy beliefs made the transport planning practices more dubious because of a huge difference between the big claims made by successive governments and their practical implementation. For example, twelve years down the road from its inception, the objective of transforming the cities of Silakot, Daska, Wazirabad, Gujrat, Gujranwala and Lahore into world class clusters could not be realized (Government of the Punjab, 2004, p. 9). Despite such failures, the practice of just preparing the plans continues with various economic and technological justifications envisioning at least two more ring roads around Lahore in the future (Communications and Works Department, 2008a).

The origin of the haphazard practices in Lahore's transport planning and policy lies in the perceptions and belief systems that evolved over time (Groote et al., 1989). The transport policy and planning of the LRR, for example, primarily relies on the argument that many big cities in the world have ring roads, based on the arguments of solving traffic problems and achieving economic growth (LRRRA, 2012g, p. 3), ignoring the actual context in which the project was to be advanced. Based on these arguments, the Punjab government perceived the LRR as an effective and efficient project that would bring economic growth and prosperity (LRRRA, 2012g; NESPAK, 2009a). When the government decided to build the LRR, it was a strategic level decision in which political power of the government and the military determined the transport policy direction. The contextual issues associated with the designing and alignment of the LRR benefitted the business interests of many organisations such as the DHA, FWO, NESPAK and NLC. The policy level practices of designing and redesigning the LRR routes and alignments were, therefore, dubious because of the involvement of the coalition between the provincial government and military in the

LRR decision-making and implementation. The coalition discouraged a larger debate at the professional and community levels. The absence of debate and project information, available to professionals and public, benefitted FWO and NESPAK through the award of contracts bypassing the merits of the tendering process (PPP, 2016a, 2016b). It is a kind of nexus and coalition between the provincial government and the powerful organisations justifying the project on the basis of technical reasons in line with the political aspirations.

There are many differences and similarities between the two roading projects of New Zealand and Pakistan. In this regard, five similar trends can be noted: (1) both New Zealand and Pakistan want to achieve economic growth by building the M2PP and the LRR respectively, (2) the long term vision-making is overly-optimistic, (3) the credibility of technical justifications, in linking the M2PP and the LRR-SL with economic growth, is weak, (4) the instrumental tools, such as BCR, EIRR and/or strategic fit criteria, mainly determine the economic growth predictions and estimate precisions without evaluating similar projects implemented previously, and (5) both countries underestimate or ignore the contextual challenges associated with advancing roading infrastructure. Based on these facts, this research finds that both developed and developing countries may overly-rely on instrumental planning tools, such as BCR and EIRR, to justify ambitious political roading projects. This observation can be captioned as *over-reliance on instrumental planning tools* in the two countries. The transport visions, in both countries, were advanced formally and informally by the central government in line with their political ambitions (Government of Pakistan, 2013; MBIE, 2015, p. 5; Ministry of Transport, 2015; Planning Commission, 2014b). The visions are, therefore, context-independent in which economic growth argument was used to achieve their political ambitions (Ministry of Infrastructure, 2015; Planning Commission, 2011c). The technical reports were changed to justify roading projects in both cases. These practices created doubts among different stakeholders. This observation may be termed as *political over-optimism in perceiving roads' benefits*.

There are some differences in the findings of the M2PP and the LRR in the context of developed and developing world. (1) There is a coherent legal and administrative transport policy framework which devolves from central to regional and then to local levels in New Zealand (Ministry of Transport, 2015). Pakistan does not have a formal transport policy so far (although, there are a number of informal de-facto policies) making the legal and administrative framework weak at the federal, provincial and district levels (Government of the Punjab, 2004; Lahore Development Authority & NESPAK, 2004; Planning Commission, 2014b). Regardless of this weakness, there is a robust mechanism of allocation of funds for road projects through Public Sector Development Programme at national, provincial and local levels. (2) New Zealand has a stronger culture of consultation practices at the operational level of road projects under various legislations (NZTA, 2011a). However, consultation process in Pakistan, as part of EIA reports, is a very weak practice only meant at fulfilling the procedural requirements. (3) The M2PP is a part of RONS and there is no evidence of frequent changes in its route alignments in New Zealand. This is because of higher level of public participation in the M2PP route and design decision-making (NZTA, 2011c, 2012e). On the contrary, as part of the LRR, the LRR-SL witnessed frequent changes in the route alignments over time (NESPAK, 2009a). This is because the LRR is to be constructed, predominantly, in the outskirts of Lahore's urban growth area which is continuously expanding and where the land was not acquired in the past. This dimension makes the military-owned housing schemes more valuable and influential in the LRR alignment decision-making.

There are two different sets of norms and practices in New Zealand and Pakistan. Both the countries adopted a top-down approach in advancing the M2PP and the LRR. Both countries wish to achieve economic growth by building massive urban roads justifying them on similar grounds such as higher BCR and EIRR. Despite these similarities, New Zealand is ahead of Pakistan in the consultation process following a robust transport planning framework in which the road projects are planned and advanced (NZTA, 2009b, 2011a).

9.3. Delineating power and interest in the transport policy processes

The aim of this section is to explain the rationality-power interplay in the decision-making processes of the M2PP and the LRR in which economic benefits are contested among the stakeholders. NZTA adopted a resource consenting process in the M2PP (NZTA, 2011a, p. 10). It gave three options to the Kapiti residents and held several workshops to involve the stakeholders. After that technical studies were carried out and the regulatory consents application was lodged with the EPA. The strategic level decision-making of initiating RONS was not part of the public consultations. However, the stakeholders were extensively consulted at operational levels, especially on the three options regarding route and design changes. This consultation focused on pre-implementation issues, alignment and interchange issues, and, the M2PP design (NZTA, 2009b, 2011a; 2011b, pp. 2-3).

However, the entire process of stakeholders' participation was at the implementation side of the project. The stakeholders were consulted at the preparation, participation and continuation stages of the project and not at the strategic stage of initiation (Figure 13). Such consultations are part of a project development process with or without stakeholders' involvement (Healey, 2003). When stakeholders are involved meaningfully in a project development process, the top-down power gets frustrated because of the involvement of the bottom-up forces (ibid), making the top-down power accountable in urban policies and processes (Cavill & Sohail, 2004). It was, therefore, argued that the actual strategic decision-making in the M2PP was political in nature showing the National-led government's transport priorities. The resistance and voices of the affected people and organisations had an influence at the operational levels as per the prevailing rules and regulations. The formal public consultation under the prevailing rules and regulations (Kendall, 2012) needed to be strengthened by informal public participation by focusing on the values, norms and customs of the local community (Chong, 2000). However, the National-led government's political power preferred rules bound formal public participation, overpowering the resistance of the affected

people. Public consultation in the M2PP project was, therefore, a restricted consultation in which only the implementation issues were negotiable and not the strategic level issues. Given that norms, values and informal practices are very important in participatory planning (Flyvbjerg, 2004, p. 289), the legal system in New Zealand strengthened the planning process with a gain for the government while making the affected people losers.

Although development control rules exist both in New Zealand and Pakistan, there is no formal resource consenting process in Pakistan required to build roads such as the LRR. The decades old history of the LRR was based on technical details while land was acquired at a limited scale in 2000s for implementing the LRR-NL. The associated technical studies, such as the environmental reports, are also weak and its purpose is to merely fulfil the legislative requirements. Usually, such studies are completed during the implementation of the project. On the contrary, the Chief Minister's office is very powerful in dictating details of such projects despite the concerns of the relevant departments. The LRR decision-making process, therefore, reflects a rationality-power interplay among the government, the military, the experts, and, the politicians. It is also observed that there is no post-construction analysis of the NL which could be used for the construction of the SL as a *reference class* (Flyvbjerg & COWI, 2004). Therefore, the entire premise of advancing roads is sometimes justified on the basis of either Turkish or Chinese models ignoring the actual contextual challenges that the LRR is faced with. There is hardly any evidence of active public involvement in the entire decision-making process, from its very inception to the culmination phase of the NL and initiation of the SL. This practice makes the LRR decision-making assertive, because participatory planning addresses local issues (Fouracre et al., 2006) by enhancing rationality in the decision-making process (Willson et al., 2003). The LRR re-alignments were influenced mainly by the political and military leadership whereas the technocrats justified them. The alignments are reflective of the power and interests of the organisations and individuals having influence in the decision-making process. In short, the public was

not meaningfully engaged in all four phases of the decision-making ranging from initiation and preparation to participation and continuation (Figure 21).

Some similar findings can be noted in the planning and decision-making processes of the M2PP and the LRR-SL. The National-led government in New Zealand, and, the PML (Q) and the PML (N)-led provincial governments in Pakistan kept the strategic level decision-making with them in which there was no consultation with the public. In both cases, the affected stakeholders were consulted and compensated at the operational levels. These findings give rise to two main themes: *strategic level decision-making is non-negotiable and political in nature*, and, *operational level decision-making is negotiable to counter the power and resistance of local communities*.

The two cases diverge from each other from several angles. The affected stakeholders were actively involved in finalising the details of the M2PP route alignment and design. In contrast, the LRR-SL alignments and route changes were finalised without actively engaging the concerned people. In case of the M2PP, a number of public consultation methods, such as brochures and postcards, conducting individual meetings and EXPOs, setting-up an information centre, website, project phone line and feedback form, and using newspaper and radio for advertising purposes, were employed (NZTA, 2011b). In the LRR-SL, however, public consultation was restricted to the EIA report. There was a strong resistance against the speedy advancement of the M2PP. In contrast, the level of resistance was very low in the LRR-SL. In both the cases, the strategic level decision-making was political in nature. Based on these findings, it is argued that strategic level decision-making is very much a prerogative of power which makes it a non-negotiable area. The operational level decision-making was, however, devolved to the affected people making it a negotiable area.

9.4. Undermining the dubious practices through problematization

The aim of this section is to undermine the dubious practices in the transport policy and planning of the two cases through problematization. Such practices are based on certain ideologies advanced on the basis of varying economic and political rationalities supporting big projects (Sager, 1999). It is important to understand how such ideologies clandestinely work in advancing their economic and political agenda in the roads decision-making (Banister & Berechman, 2001; Flyvbjerg, 2014). 'Economic growth and productivity' is the main storyline in the M2PP in which the economic benefits can be divided into conventional economic benefits and wider economic benefits (SAHA, 2010b). The conventional economic benefits constitute travel time saving, safety and vehicle operating costs (Ministry of Infrastructure, 2010, p. 10; Ministry of Transport, 2014c; 2015, p. 1). There is a kind of common perception that the M2PP will save travel time during peak hours, both for the commuter and freight. The M2PP is also commonly perceived to enhance safety because safety is a big concern of the Kapiti people (KCDC, 2001). Another perception is that the M2PP will reduce VOC such as running cost, vehicle depreciation cost, speed change cycle cost and road surface cost. The wider economic benefits are divided into national benefits and regional benefits (SAHA, 2010b). As big road projects have unusually high policy and planning stakes (Peters, 2003), several ideologies were floated such as rise in national income, value for money and New Zealand as a first world country (Campbell Live, 2012; Infometrics, 2009, 2010; Ministry of Transport, 2009a, 2012b). There is a perception that the M2PP will be helpful in raising the national income, getting value for money and the perception of New Zealand as a country with a first world standard of roads. The regional benefits include agglomeration benefits and increased employment benefits. There is a perception that the M2PP will help create agglomeration and increase employment opportunities for the Kapiti people at the regional level.

'Economic prosperity' is the main storyline in the LRR-SL based on the conventional economic benefits and wider economic benefits. The conventional benefits are

composed of travel time saving, vehicle operating cost and congestion relief (LRRA, 2012g). Generally, there is a common perception that the LRR will save tremendous travel time by providing easy access to all parts of the city bypassing the congested area (NESPAK, 2009a). There is another view that it will help save VOC such as vehicle depreciation, fuel consumption, and tyre wear and tear. Another view is that the LRR will reduce congestion at the city's bottlenecks during peak hours and save the roads salvage value (LRRA, 2012g). The wider economic benefits include travel comfort, a rise in economic activities, an increase in land values and employment opportunities. There is a policy perception that the LRR will result in travel comfort, increase economic activities alongside raising land values and employment opportunities (ibid).

Four common trends can be observed in the M2PP and the LRR: (1) both cases perceive economic growth as the main benefit, (2) The economic growth argument is based on similar sub-storylines such as travel time saving and vehicle operating costs, (3) In terms of conventional benefits both cases focus on agglomeration and employment benefits, (4) Both cases incorporate tangible and intangible economic benefits in terms of conventional and wider economic benefits. These similarities give an interesting perspective that road projects have been advanced on the same arguments in two highly different countries.

There is some divergence in the M2PP and the LRR storylines. For example, the M2PP advanced *economic growth and productivity* storylines in contrast to *economic prosperity* in the LRR. Safety is one of the main concerns in the M2PP. However, this is not the case in the LRR despite the fact that over 4500 people annually die in road crashes in Pakistan (Dawn, 2014). The value for money and New Zealand as a country with a first world standard roading infrastructure are significantly important in advancing the M2PP. However, the LRR aspires to align itself to inter-city motorway system which will soon become part of China-Pakistan Economic Corridor. Moreover, the link between the M2PP and rise in land values is not significantly projected as is the case with the LRR.

The argument of travel time saving as an agent of economic growth is not supported by many authors such as Gwilliam (1997), Eicher and Turnovsky (1998), Metz (2004) and Weisbrod (2008). Therefore, the practice of linking travel time saving with economic growth and prosperity is dubious. It is interesting that the argument of safety is not just confined to the safety from road accidents only but also safety from various economic, social, environmental and spatial externalities. The safety argument is stronger in the M2PP while weaker in the LRR. It is also observed that there is a strong and well-aware community in New Zealand opposing the rapid advancement of the M2PP. In Pakistan, however, the affected community is weak, illiterate and unaware of their rights vis-à-vis the strong and well-aware community of DHA supporting the advancement of the LRR. The RONS project was initiated and operationalized by the same government. However, the LRR was advanced under many different governments with varying interests.

There are political priorities in New Zealand and Pakistan that justify roads investment. The opposition political parties in the two countries blame their respective governments of political assertions in the decision-making process of the M2PP and the LRR. The political support for the M2PP and the LRR-SL strengthens the theme that *private car is supreme* as it reflects personal freedom and movement of choice on expanded roads. In this regard, the policy approaches of both New Zealand's National Party and Pakistan's PML (N) are the same promoting a policy culture that inherently supports car owners.

9.5. Implications for developed and developing countries

The proponents of natural science argue that one cannot generalise on the basis of a single case which, according to Flyvbjerg (2006, p. 224), is a misunderstanding. Therefore, the generalisation of the two cases from New Zealand and Pakistan for developed and developing countries is confronted by such arguments. The generalisation is not meant at producing a theory applicable to developed and developing countries on the lines of natural science, but to produce rich and in-depth social knowledge of cases which could challenge the prevailing urban

planning and policy practices in these countries. This approach of generalisation is built from Popper's (2004, p. 378) well-known example "all swans are white". This hypothesis can be falsified with just one case of black swan, thus, making a generalisation that "all swans are not white". This suggests a single case can be used in generalising the results. 'The case study is well-suited for identifying "black swans" because of its in-depth approach: What appears to be "white" often turns out on closer examination to be "black"' (Flyvbjerg, 2006, p. 228). This suggests that new cases and new examples can falsify the widely accepted hypotheses and generalise new knowledge. Therefore, the contextual knowledge gained in one case can effectively be used in other cases by finding "black swans" through detailed study (ibid). Against this backdrop, the two cases of this thesis can effectively be used as a generalisation for developed and developing countries.

The two cases were advanced under two different political practices in developed and developing countries based on certain policy norms and values. Two dissimilar policy environments related roads investment with economic growth through similar justifications. The dissimilar environments of transport policymaking experienced the exercise of power in urban planning differently in advancing the justifications of roading projects. The policymaking and planning in the M2PP was based on a coherent and strong policy framework while it was incoherent and weak in the LRR. Despite this discrepancy, the economic growth argument was justified by the exercise of power. Roads investment, as physical capital, is a necessary but not the only condition required to achieve economic growth (Domar, 1946; Harrod, 1948; Solow, 1956). As the argument of achieving economic growth by building roads is marred by controversies (Gauthier, 1970), it got empowered by political, economic, technological and aesthetic justifications advanced by the powerful (Flyvbjerg, 2004, 2014; Flyvbjerg et al., 2012). The finding suggests that strong transport policy framework is good but it is not inevitable in positively connecting roads investment with economic growth because the reality is actually defined by power. The finding is alarming for developed countries in which strong democratic practices usually make the transport policymaking approach transparent. In such

countries, power defines the reality of economic growth under democratic practices and strong institutions.

In developing countries, usually weak in democratic practices, the reality of economic growth is again defined by power. For example, the route alignment and design issues in both cases were different. In the M2PP, the finalization of route alignment and design was a collective decision (NZTA, 2011c, 2012e) whereas, in the LRR, few individuals decided such sensitive issues with frequent changes (NESPAK, 2009a). Both of them justify achieving economic growth by advancing roads through various economic, political, technological and aesthetic reasons (Flyvbjerg, 2014). The mechanism of the perceptions advanced in justifying roads expansion and connecting them with higher per capita income took place under both strong and weak institutions. It was a kind of experimentation and testing not only of the transport policy perceptions but also how the policy perceptions were translated from national to regional and then to local levels under different institutional arrangements. When it comes to the exercise of power, therefore, developed and developing countries are the same where power and rationality together define reality of economic growth.

The strategic visions in the two cases are not corroborated by data making this practice a technically feeble and political area in which strategic power is exercised. In both the cases, it is generally believed that the relationship between roads investment and economic growth is positive (Hunter, 1965; North, 1955; Owen, 1964) ignoring that it could actually be permissive (Cootner, 1963; Fogel, 1964; Hawkins, 1962) or even negative (Hirschman, 1958; Wilson et al., 1966). In both cases, the strategic level visions explain this unexplained gap through the exercise of power by curbing the role of rationality suggesting that power is a dominating factor against rationality (Flyvbjerg, 1998b, p. 232) and, therefore, the relationship between the two should be asymmetrical (Flyvbjerg, 2002). However, some reasons delineate why the relationship between rationality and power is not necessarily asymmetrical: (1) In the strategic level decision-making, the relationship between

rationality and power is undoubtedly asymmetrical because power is a dominating factor here. (2) However, at the operational level, it could either be asymmetrical or symmetrical. The findings of the two case studies suggest that there are many phases at the operational level where power subdues before rationality. This observation is particularly valid for the long public consultations and subsequent selection of the M2PP routes (Alliance, 2010, 2011; EPA, 2013, p. 8). However the same practice is absent in the LRR-SL suggesting an asymmetrical relationship between rationality and power both at strategic and operational levels. In this regard, Flyvbjerg (1998b, pp. 227-234) argues that rationality remain subservient to power through an asymmetrical relationship between the two ([ibid, p.234; Flyvbjerg (2002)]. The findings of the two case studies extend this observation arguing that the relationship between rationality and power is not necessarily asymmetrical in both developed and developing countries.

The perception of positively linking roads investment with economic growth transformed into belief systems in both the cases mainly because of *'political over-optimism in perceiving roads benefits'* alongside *'advancing context-independent perceptions'*. The advancement of certain ideologies, such as achieving economic growth and catching-up with the First World, plays an important role in this transformation. This dimension creates some practices which could be used for controlling and influencing the powerless (Wrong, 1968) by avoiding an open discussion on values and interests necessary for an enlightened economic development (Flyvbjerg, 2001, p. 3). Therefore, the political sublime (Flyvbjerg, 2014) takes the shape of dubious national visions or advancement of certain ideologies through overly-optimistic policy approach, such as revolutionising the economy by building the LRR as part of China-Pakistan Economic Corridor. While the relation among perception, context and decision-making is inseparable (Bate, 2013; Chalmers, 1997), the context-independent perceptions are transformed into policy belief systems justifying *survival of the un-fittest* by building worst mega projects (Flyvbjerg, 2009). Based on these observations, it is argued that the relationship between rationality and power transforms its shape from asymmetrical

to symmetrical relationship, and vice versa, under different planning and policy environments in developed and developing countries.

In both case studies, the advancement of power's agenda took place through two main dubious practices. The first was *the economic growth argument* suggesting that roads are needed to enhance economic growth in New Zealand and Pakistan (Ministry of Infrastructure, 2015; Planning Commission, 2014a). This practice was underpinned by another *dubious practice of advancing the wider economic benefits argument* in addition to the conventional ones (LRR, 2012g, p. 61; NESPAK, 2009a; Richard Paling Consulting, 2013; SAHA, 2010a). The first practice was based on *the advancement of the same argument*, and, similar *perception of agglomeration and employment benefits in two different contexts*. The quantification of these benefits was done through instrumental tools such as BCR and EIRR (LRR, 2012g; SAHA, 2010a). This makes *instrumental rationality* (Flyvbjerg, 2004) a means which strengthened the dubious practices of advancing economic growth argument by the exercise of power in both the cases. These dubious practices reflect those tension points which uncover the deceptive procedures of planning, 'with falsely inflated benefits and falsely deflated costs', such as cost-benefit analysis (Flyvbjerg et al., 2012, p. 5). The economic growth argument strengthened power in the two cases because its reality was advanced through instrumental rationality in terms of economic growth theories and BCR. The conception of the agglomeration and employment benefits is also dubious because no supportive data was provided in both the cases to strengthen this argument. In case of the M2PP, for example, the instrumental rationality in defining economic growth was weak because the value rationality, based on such factors as congestion relief and roads accidents, was very strong. This suggests that the weak basis of instrumental rationality, in connecting congestion relief and safety as agents of economic growth, and the dubious practices in the planning and policy of the M2PP and the LRR strengthened the agenda of power.

The dubious practice of advancing wider economic benefits argument is based on *multiple counting of same benefits* and, *treating it as a tool to secure and approve government funds*. This practice was also observed in both the cases. In case of the M2PP, for example, the actual 2009 SAHA report indicated that the BCR of WNC is less than one (SAHA, 2009). This report was never published by the government and was sent back to SAHA for re-working which took the shape of the 2010 report. Such dubious practices indicate that informal policy practices are strong in the M2PP planning processes. However, they are advanced as an agenda of power to counter the associated contextual challenges. Therefore, the M2PP objectives are weak in justifying economic growth as a major benefit (NZTA, 2012f). A similar trend was also observed in the LRR in which the economic growth argument was advanced by different political and military powers (JICA, 1990; LRR, 2012g; MM, 1992). However, the economic growth argument defined by previous political and military power was redefined by taking value rationality on board in which congestion relief and time reliability became the principle strength of instrumental rationality. This practice actually strengthened the agenda of power advanced by the previous governments. It is, therefore, argued that the contextual challenges are hidden in the dubious practices of planning processes. Therefore, the arguments supporting economic growth and WEBs are advanced by power for countering the value rationality generated by the contextual challenges. Such practices hide actual contextual challenges in them as part of the agenda advanced by power.

In both cases, the strategic level decision-making was non-negotiable with the stakeholders making it entirely a prerogative of power to decide what is negotiable and what is not. Therefore, the public was never consulted at the initiation stage of the two projects, following narrow technical procedures (Willson et al., 2003) aimed at achieving fixed solutions in an assertive manner (Healey, 1992). This suggests that negotiability of road projects was determined by power in the two cases. The observation also suggests that *the initiation phase* (Wilcox, 1994, p. 16) in both the cases was non-negotiable. The construction of the two projects involved huge

investments from the national exchequer for which the policy processes needed to be transparent under the rules and regulations. Therefore, decision-making took place at two levels in both the cases marking the negotiability and non-negotiability of the issues as shown in Figures 13 and 21. The rapture of initiating mega projects, at the political level, by the governments of New Zealand and Pakistan, was first supported by the economic interests of the business enterprises making a coalition of interests at the strategic level – a nexus of *political and economic sublimes* (Flyvbjerg, 2014). Therefore, the negotiability and non-negotiability of the two projects were defined by unequal and highly changing power relations where the political and economic sublimes were penetrated into the planning processes by devolving non-strategic or hollow power to the stakeholders. At the operational level, the decision-making was devolved to the public through public consultations, no matter strong or weak. At this stage, the decision-making power entered into the *preparation phase* (Wilcox, 1994, p. 16) in which different options were considered by the powerful. Accordingly, the affected stakeholders were consulted on specific issues such as route, alignment and design issues making it a negotiable area. Even within the negotiable area, the planning processes were assertive in both cases.

The findings suggest that two different policy and planning processes, from developed and developing countries, had a similar approach in ascertaining and deciding strategic issues such as initiation of road projects. In the M2PP, the real power was exercised only at the strategic level marked by the initiation of the RONS project. Here, the actual power taking the strategic level decisions was further strengthened by the devolution of non-strategic level decision-making to the affected stakeholders. Therefore, instead of enhancing rationality through discussions (Willson et al., 2003), its scope was actually restricted and curtailed. The non-strategic level decision-making comprised the preparation, participation and continuation phases. This suggests that the power of local authorities (Vickerman, 2000), as part of community-based integrated transport planning (Booth & Richardson, 2001), was ignored in the two cases. In the LRR, the entire process

starting from *initiation* to *preparation* and, then, onto *participation* and *continuation* was practically non-negotiable. In this case, power was more centralised in taking both strategic and non-strategic decisions involving several sensitive issues such as land acquisition, award of contracts alongside spending huge funds from the people's taxes. In both cases, the dividing line between negotiability and non-negotiability of planning and policy issues was defined by unequal and highly changing power relations. Based on this observation, it is argued that planning process basically advance the strategic level political and economic sublimates of the powerful in developed countries. The same practice is done in the developing countries, in which the political and economic motives are pursued all through strategic and non-strategic decision-making processes. This observation draws attention to the importance of communication and negotiability issues in road projects by sensitising the need to understand deeper critical planning issues being dealt at the strategic level by the powerful players.

In both the cases, there was a slight difference between the themes of *economic growth and productivity* and *economic growth and prosperity*. The linguistic structures reflect how the instrumental rationality was empowered which actually strengthened the agenda of power. New Zealand, being a developed country, needed to focus more on *productivity* alongside enhancing economic growth. The linguistic structures used in the M2PP planning and policy documents, therefore, reflect productivity as the main theme (Ministry of Transport, 2015; NZTA, 2015a). However, Pakistan, being a developing country, needs to tackle the poverty issue as well. Therefore, *the prosperity theme* is prominent in the transport policy and planning documents alongside increasing economic growth (Government of the Punjab, 2004, 2015c). Although economic growth is a common theme in both cases, the linguistic structure of the themes of *productivity* and *prosperity* discursively connects the contextual issues with instrumental rationality which then strengthens power.

A better practice is to question all those dubious practices linking roads investment with economic growth; say, the M2PP may or may not bring economic growth, do we need to build it? This is a kind of defamiliarisation with the prevailing familiar situations. The next possible question is: will the government fund such a project? This is a kind of bottom-up approach as against the top-down approach requiring an altogether different planning and policy culture in which the real issues determine the policy direction and processes respond as per the contextual requirements. In such a planning practice, the national visions and the economic growth arguments will be framed by the arguments forwarded from the local levels to the top political and bureaucratic levels as per the contextual needs and challenges. The practice will have the spirit of participatory decision-making not just at the operational level but within the power corridors at the strategic level. Another similar question is: why does New Zealand want to catch-up with the First World's roading infrastructure? A similar question can also be raised for Pakistan. The rationality generated by such questions will raise more questions such as: is roads advancement the only way to catch-up with the First world? Such questions need to be generated through the planning processes in which power needs to be at the defensive end in advancing the policies which require funds from the national exchequer.

Based on such questions and the associated practices generated, it may be observed that current economic growth arguments advanced, both in the M2PP and the LRR, are a niche advanced by power. It is indeed collusion between instrumental rationality and power which when combine together results in rapid advancement of road projects in developed and developing countries. Public consultations, public hearings by NZTA and LRR, distribution of pamphlets among stakeholders and compilation of consultative feedback are some tools meant at tackling value rationality in strengthening power in the New Zealand context. In case of the LRR, similar approach was applied for gaining power through the assertive planning practices such as the Chief Minister's directives. Both case studies suggest that economic growth argument was clandestinely created by

power through dubious planning practices with a view to strengthen political and economic power. Economic growth is, indeed, a niche created, advanced, and interpreted by power to achieve its strategic objectives in road development without considering contextual differences in developed and developing countries.

9.6. Conclusion

A complete reliance on context based knowledge in transport planning and mega projects' management is necessary to achieve economic growth out of roads investment. The approach of context based planning is usually bottom-up, embedded in community and stakeholders' tacit knowledge, as opposed to the context-independent knowledge usually following a top-down approach through the exercise of political and technical power. The context-based knowledge has the ability to identify the tension points before initiating a project. The visions and economic growth arguments advanced by the National-led government's policy in New Zealand and the PML (N)-led Punjab government's policy in Pakistan are not supported by the literature. Therefore, the entire policy of advancing RONS and the LRR is based on context-independent knowledge with a top-down approach through the exercise of political power. There is no evidence of any strategic level discussion and consultation at the initiation level of RONS and the LRR. Therefore, the M2PP was strategically decided as part of RONS and the LRR-SL as part of the LRR. This dimension was non-negotiable. The operational level decision-making was, however, perceived as negotiable at the implementation level of the M2PP decision-making process. On the contrary, the LRR-SL was non-negotiable even at the implementation level. Both projects were heavily dependent on BCR, EIRR and strategic-fit criteria to justify their existence. Therefore, the planning practices, in both countries, are based on instrumental tools in which the actual context was ignored.

It is proposed that negotiability of planning issues is determined by power and it is power that decides what is negotiable and what is not. It is also argued that rules and regulations get aligned with the objectives of power no matter whether they

are strong or weak. Therefore, the planning implications in both developed and developing countries are the same working under supposedly strong and weak rules respectively. Another dimension is that the agenda of power is advanced by such dubious practices which in fact support the objectives of power. The contextual challenges are hidden in such practices. Therefore, the economic growth arguments are advanced through certain linguistic structures, national visions and by linking an ordinary citizen's concerns. This approach strengthens the agenda of power by advancing roads expansion based on certain ideologies such as achieving economic growth. Therefore, the economic growth argument is advanced by power irrespective of the political system in which planning practices are carried out.

CHAPTER TEN

Conclusion

To carry on the feelings of childhood into the powers of manhood; to combine the child's sense of wonder and novelty with the appearances which, every day for perhaps forty years had rendered familiar [. . .]; this is the character and privilege of genius (Engell & Bate, 1983, pp. 80-81).

10.1. Introduction

The aim of this research is to investigate the economic growth arguments advanced to promote new road projects. This has been done by studying two cases one each from a developed and developing countries, namely New Zealand and Pakistan. The two cases, the MacKays to Peka Peka and and the Lahore Ring Road, were selected with a view to better understand different contextual challenges faced by planners under different policy and planning practices in developed and developing countries. The perception of achieving economic growth by building roads is very strong both in New Zealand and Pakistan despite different political, legal and economic planning approaches. The two countries very strongly associate roads advancement with economic growth despite weak evidence from the contemporary literature and theory. However, the analysis of policy and planning documents indicates that the economic and technological justifications advanced for the two projects are weak. It is actually the rationality-power interplay in which the roads expansion has been presented as a solution, and advanced by power, that would enhance economic growth in the two countries.

The purpose of this chapter is to present the insights gained from the two case studies that add to the debate as to whether roads investment can lead to enhanced economic growth, or not, alongside the empirical and theoretical contribution of this research at the broader level. Finally, the dynamics of future research are identified that will not only further explore the relation between roads investment and economic growth, but will also help better understand the

rationality-power relational interplay in planning and urban decision-making processes in developed and developing countries.

10.2. Roads investment and economic growth: what is the contribution of this thesis?

The thesis makes original contribution on several fronts. It is argued that the planning, management and decision-making of roads building in developed and developing countries need to be scrutinised through an understanding of contextual issues. Decision-making is a political matter in which instrumental rationality needs to be balanced with value rationality. The nexus between instrumental rationality and power can only be countered through promoting value rationality based on contextual challenges. Phronetic Planning Research assumes an asymmetrical relationship between the rationality and power which does not present the complete picture. It is argued that rationality-power relationship is not always asymmetrical. Therefore, it is power that determines the distinction between strategic and non-strategic decisions based on the rationality-power relational interplay. The themes identified from the case studies suggest that the policy approach in both countries is to minimise the role of value rationality in the planning and decision-making processes. Power is, therefore, the dominating factor working in active collusion with instrumental policy tools in justifying a massive advancement of roads in the two countries. In this regard, the transformation of policy perceptions into public beliefs is based on political over-optimism in the two countries. This is a political sublime that views a positive link between roads investment and economic growth by creating a pseudo-context far from the actual context where it is hard to prove and reflect that roads investments enhance economic growth.

It is deduced that instrumental policy tools are very strong both in developed and developing countries which interplay with value rationality in active collusion with power. These tools have the tendency to ignore various economic, social,

environmental, spatial and other externalities. As a result, the contextual issues in both developed and developing countries undermine the benefits of roading projects irrespective of being part of an effective policy framework. Both developed and developing countries use different specific strategies such as 'achieving economic growth' to achieve strategic objectives aimed at gaining and strengthening power through controlled and manipulated decision-making processes.

It is also argued that power has its own deterministic approach to achieving its strategic objectives irrespective of the political system in which it is exercised. Therefore, it is sometimes hard to see a difference between strong and weak public consultation in the exercise of power because power has the ability to construct and deconstruct arguments, such as economic growth, for achieving its objectives through instrumental rationality. Power, therefore, defines what economic growth actually is, and for whom economic growth will be, in the given circumstances. The two cases also indicate that power has the ability to determine which planning areas are negotiable or non-negotiable in line with its strategic objectives. Accordingly, power draws the line between negotiability and non-negotiability in urban issues because of unequal and ever changing power relations at the strategic and operational levels.

Power also aligns the entire planning machinery through the prevailing rules and regulations whether strong or weak. This objective is achieved through both formal and informal planning practices aligning with the objectives of power in developed and developing countries. It is, therefore, argued that strong rules and regulations do not impede the penetration of power into the decision-making process through instrumental tools; it rather changes its modus operandi in line with the requirements of the rules and regulations. Power, therefore, advances its agenda through dubious practices in planning so that the value rationality generated by the contextual challenges could be neutralised. The operational level consultation with stakeholders is one such practice in which power minimised the impact of value

rationality in the M2PP by taking the local people on board labelling it collective decision-making. This consultation was done on the minor issue of which alternative route to follow; not the more fundamental and important issue of whether or not the RONS should be undertaken at all? It is also argued that the economic growth arguments advanced on the basis of only linguistic structures and national visions and by involving operational level public concerns are not only dubious but also strengthen the agenda of power. Finally, it is argued that economic growth is a niche created, advanced, and interpreted by power for achieving its strategic objectives in road development without considering contextual differences. It is suggested to balance the top-down approach by the bottom-up approach in developed and developing countries so that the contextual challenges could be addressed.

The concluding postscript suggests that the little boy's practical wisdom, informal novelty and common sense perceived the stuck truck as a contextual challenge instead of a technical problem. Based on minor childhood practices, his approach was practical and simple as against the experts' approach which was confined to their technical knowledge. The little boy followed *phronēsis* and succeeded in suggesting a better solution.

10.3. Limitations and future research

The research comes up with several propositions in two different contexts based on the rationality-power relational interplay in the transport decision-making process. However, it needs to be expanded to other similar cases and contexts, both from developed and developing countries, so that it could incorporate more contextual issues not confronted in this thesis. The limitation is based on the argument that each case has something new and enriching to add-on to the existing knowledge. While one case study can effectively be generalised at a broader canvass, more cases and contexts can further strengthen such generalisation. Furthermore, this thesis has focused on the economic side of *phronēsis*. However, roads planning, policy and decision-making processes involve many other dimensions particularly

on social, environmental, political, aesthetic and spatial fronts. Therefore, linking roads investment with economic growth requires a specialised phronetic focus on each of these categories which would further strengthen the findings of this thesis.

The critical analysis of the policy documents and planning processes has raised many questions needing attention in the future in relating roads investment with economic growth. The theoretical and methodological guidelines of PPR are predominantly the outcome of Flyvbjerg's (1998b) propositions based on the Aalborg case study. These propositions took the form of four value rational questions and nine methodological guidelines (Flyvbjerg, 2004). These theoretical and methodological guidelines are a result of fifteen years of detailed study of the Aalborg project (Flyvbjerg, 1998b). This thesis presents many propositions based on the M2PP and the LRR-SL case studies. Transforming these propositions into theoretical and methodological guidelines for developed and developing countries may take a longer time than the Aalborg project. This is the area of future research in which power relations need to be analysed exclusively in determining what economic growth actually is when it comes to confront power relations. This is the future direction that will potentially focus on the economic side of PPR by exclusively focusing on power and economic issues in transport projects. The findings are likely to evolve into a new set of theoretical and methodological guidelines which may be termed as Economic-Phronetic Transport Planning Research (EPTPR). It is because economic growth in itself is a reality, despite being a niche, and a form of power which needs formal theoretical delineation in future. This dimension needs a focused approach particularly for transport mega projects in developed and developing countries. The findings of this thesis provide the necessary base to carry out further research towards the evolution of a new theory in which economic-phronēsis will be viewed from the transport planning perspective so as to trace the roots of the notion of economic growth vis-à-vis power at a much narrower scale. It will also engage phronēsis on social, environmental, political, aesthetic and spatial aspects of roads planning in developed and developing countries. The transformation of the propositions into

theoretical and methodological guidelines will have the potential to further magnify those contextual issues which continue to hinder economic growth despite huge investments in roads both in developed and developing countries.

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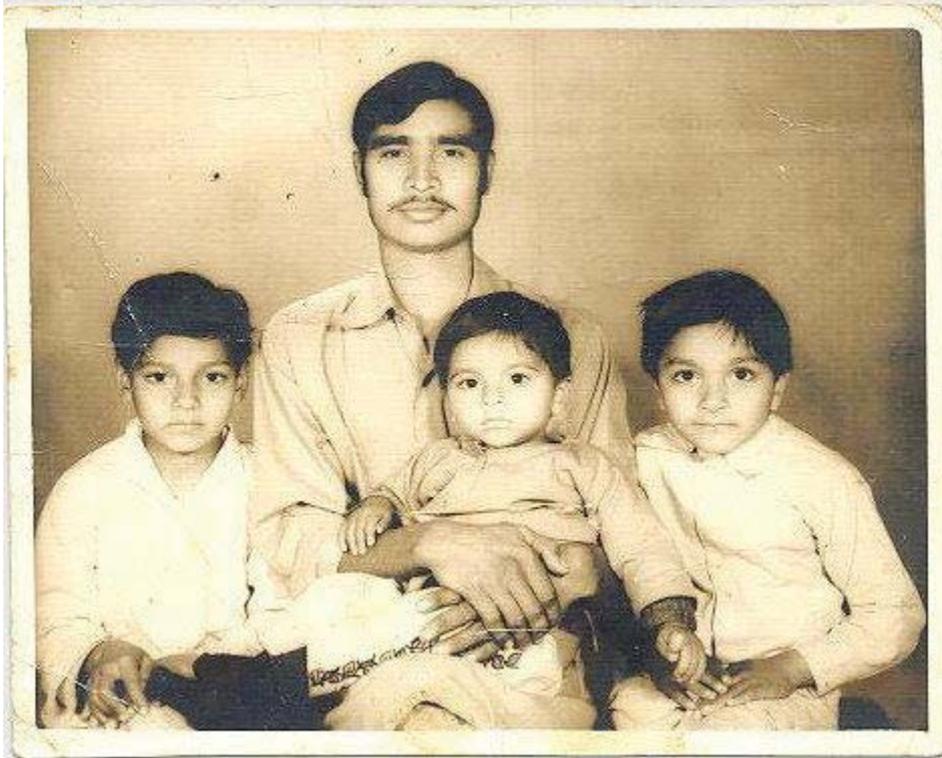
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Appendix One

The author in Shonka's lap at the age of one



Source: Adam Studios (1973)

Appendix Two



Roads investment and economic development in New Zealand and Pakistan

INFORMATION SHEET

Researcher's Introduction

My name is Babar Chohan. I am a PhD student in the School of People, Environment and Planning, Massey University. The purpose of this research is to investigate the link between roads investment and economic development. The findings of the project will be published in relevant journals and conferences. The thesis will also be available at the Massey University library. The project will undertake two field studies, one each in New Zealand and Pakistan.

Project Description and Invitation

This project investigates the link between roads investment and economic development. The MacKays to Peka Peka (M2PP) section Road of National Significance and Lahore Ring Road Project (LRRP) have been selected from New Zealand and Pakistan respectively.

Participant Identification and Recruitment

The selection of participants is based on the identification of main stakeholders/actors and their contextual relation with the M2PP and the LRRP in New Zealand and Pakistan respectively. Participants' names have been obtained from various planning documents, websites, media and academic sources. The selection criteria also include participants' capacity and understanding of the research question. The interviews do not cause any risk to the participants and findings will be presented in the thesis.

Project Procedures

The interview questions have been framed in a way to explore different aspects of arguments linking roads investment with economic development. The interview will not more than an hour. The participants' responses will be analysed and findings will be presented in the thesis.

Data Management

The interviews will be recorded and transcribed for data analysis. The data generated on the basis of information provided by you will be kept on secure computer for better research management. All information collected for this project will be destroyed after the successful examination of the thesis in line with Massey University's Code of Ethical Conduct for Research.

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- *decline to answer any particular question*

- *withdraw from the study*
- *ask any questions about the study at any time during participation*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher*
- *be given access to summary of the project findings when it is concluded*
- *ask for the recorder to be turned off at any time during the interview*

Project Contacts

If you have any questions about this study, please feel free to contact any of my supervisors or myself:

- 1- Dr Imran Muhammad**
Lecturer, Resource and Environmental Planning
Location: Turitea Campus
Office: Social Science Tower 3.14
Phone: +64 6 3569099 ext 81756
- 2- Dr Christine Cheyne**
Associate Professor, Resource and Environmental Planning
Location: Turitea Campus
Office: Social Science Tower 5.21
Phone: +64 6 3569099 ext 2816
- 3- Babar Chohan**
Doctoral Candidate, Resource and Environmental Planning
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Massey University, Palmerston North,
New Zealand
Phone: +64 6 3569099 ext 7196
Fax: +64 6 3505737
Cell: +64 220653020
Email: b.chohan@massey.ac.nz

“The project has been evaluated by peer-review and judged to be low risk. Consequently, it has not been reviewed by one of the University’s Ethics Committee. The researcher named above is responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other the researcher(s), please contact Professor John O’Neill, Director, Research Ethics, telephone 06 3505249, email humanethics@massey.ac.nz .”



13 March 2012

Babar Chohan

1/273 College Street, West End

PALMERSTON NORTH 4412

Dear Babar

Re: Roads Investment and Economic Development in New Zealand and Pakistan

Thank you for your Low Risk Notification which we received on 5 March 2012.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committee.

The Low Risk Notification for this project is valid for maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisors and relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer-review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Ethics Committee. The researcher named above is responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other the researcher(s), please contact Professor John O'Neill, Director, Research Ethics, telephone 06 3505249, email humanethics@massey.ac.nz."

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

John G O'Neill (Professor)

Chair, Human Ethics Chairs' Committee and Director (Research Ethics)

cc Dr Imran Muhammad
School of People, Environment & Planning

PN 331

Dr Christine Cheyne
School of People, Environment & Planning

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Mrs Mary Roberts
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Appendix Three

Interview themes and questionnaires in the M2PP and the LRR-SL

M2PP	
Interview theme	Interview questions
1 How does current roads policy contribute to achieving economic growth?	i- How will M2PP contribute to economic growth? ii- The objective of RONS is to achieve economic growth and productivity but M2PP aims to achieve safety and travel time saving. Do you think these are two different policy directions?
2 How are economic growth benefits contested among the stakeholders?	iii- Given that M2PP may divide the Kapiti community, what economic growth impacts it will have for the people of Kapiti? iv- What mechanism the government has followed to address the interests of Kapiti community?
3 What is the discourse behind the claims of economic growth benefits?	v- M2PP aims to achieve roads safety and travel time saving. Will these benefits be achieved? vi- In your view, what are the reasons of M2PP design changes?
4 How will economic growth be achieved in future?	vii- Will economic growth be achieved from M2PP in future? viii- What other areas the government need to focus so that M2PP could ensure economic growth?
LRR-SL	
How does current roads policy contribute to achieving economic growth?	ix- How will LRR-SL contribute to economic growth? x- The objective of LRR is to achieve economic prosperity but LRR-SL aims to achieve congestion relief. Do you think these are two different policy directions?
How are economic growth benefits contested among the stakeholders?	xi- What economic growth impacts will LRR-SL bring for the people of Lahore? xii- What mechanism the Punjab government has followed to address the grievances of affected people?
What is the discourse behind the claims of economic growth benefits?	xiii- LRR-SL aims to achieve economic prosperity through congestion relief. Will it be achieved? xiv- In your view, what are the reasons of LRR-SL design changes?
How will economic growth be achieved in future?	xv- Will economic growth be achieved from LRR-SL in future? xvi- What other areas the government need to focus so that LRR-SL could ensure economic growth?

Source: the author