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Roads for economic development: An analysis of urban transport policies of New Zealand and Pakistan

Babar Chohan, Muhammad Imran, Christine Cheyne
School of People, Environment & Planning
Massey University, New Zealand
b.chohan@massey.ac.nz

Abstract

Transport studies suggest that investments in urban roads have been justified in terms of easing congestion, saving time and energy, increasing safety, improving social and environmental outcomes and e nhancing economic development of a city. Investments in urban roads may have many advantages as they may expand services and improve mobility and, if sustained over time, may contribute to the economic development. However, critics argue that continuous investments in urban roads result in additional traffic and ultimately increase congestion and parking problems which have reverse development impacts. These arguments challenge the conventional arguments about the economic benefits of road investments in urban areas.

This paper aims to identify the policy objectives and key arguments regarding road investments in New Zealand and Pakistan. Transport policy documents at national, regional/provincial and local levels, from both the countries, have been critically assessed utilising deep policy analysis and a 'compare and contrast approach'. Empirical policy objectives behind road investments in Lahore, Pakistan, and Wellington, New Zealand, have been analyzed. The purpose of such a comparison is to develop some understanding about the comparative transport policy issues in developed and developing countries. The paper investigates whether the factors linking transport investment with economic development have been completely met or not in the transport policies of two countries. It suggests 'lack of capacity' as the main reason behind incoherent transport policies in Pakistan. The paper concludes by questioning the role of power-dynamics and interest groups in formulating transport policies in New Zealand and Pakistan.

1. Introduction

Policy process and political conditions play a decisive role in determining economic development of an area (Berechman, 2002). The word 'policy', as defined by Bridgman and Davis (2004), is an authoritative response to a public issue or problem. Peters (1993, cited in Shaw and Eichbaum, 2011) treats 'policy' as a sum of government activities having influence on the citizens' lives. This infers that the word 'policy' means a set of principles and/or rules meant for guiding decisions and achieving optimal rational results.

Contreras (1999) notes that the term 'economic development' has been used by economists, politicians and others throughout the 20th century. Economic development is defined as an increase in the living standard in a nation's population with sustained growth from a simple, low income economy to a modern high income economy (see, for example, Myint and Krueger (2009)). Cornwall (2010) defines 'economic growth' as an increase in per capita Gross Domestic Product (GDP). Anand and Sen (2000) argue that economic growth also increases additional resources which can then be used for improving social services, thus increasing living standard of the people.

A transport policy-design characterised by over-optimism and misrepresentation of facts results in inaccuracy and thus wrong implementation of projects (see, for example, Flyvbjerg (2008)). Better political condition is a necessary pre-requisite for economic development as

noted by Banister and Berechman (2001). Adey (2010) regards 'mobility' as being directly related to political decision-making with the relations of society and power in the backdrop. This power as a research methodology has been presented by Flyvbjerg (2002). He coins the notion of 'phronetic planning research' based on power studies by authors such as Machiavelli and Michael Foucault. His phronetic planning research, in simple words, raises four basic questions: (i) Where are we going with planning, (ii) Who gains and who loses from this power mechanism, (iii) Is such development desirable and (iv) What should be done? This paper aims to identify the policy objectives and key arguments regarding recent road investments in New Zealand and Pakistan. The transport policy environments of New and Pakistan, with populations of 180 and 4.5 million respectively, are very different from each other. In this scenario, Flyvberg's phronetic planning research methodology makes such a comparison possible and brings the discussion into power studies irrespective of disproportionate populations' size and institutional structures. Wider theoretical basis of the phronetic planning research methodology enables the paper to focus on the Punjab Province instead of whole Pakistan. As far as measurement of economic development is concerned, there are several theories in economics for measuring economic growth and development. Some of these techniques have already been outlined by the authors (see Chohan et al.(2011)). The measurement of economic growth and development has, therefore, been kept out of the scope of this paper.

2. Phronetic planning: Transport policy and economic development

The methodological guidelines of Phronetic Planning Research have been outlined in detail by Flyvberg (2004). Accordingly the paper lays focus on 'values', places power at the core of analysis, moves beyond agency and structure and looks at practice before discourse. Within these broader principles, the paper attempts to investigate the elements of *optimism bias* and *misrepresentation* in the transport policies of New Zealand and Pakistan (see, for example, Flyvbjerg (2008)). Policy-making is characterised by the commitment of investment

Table 1: Theorized links between transport investments and economic development

1 Economic development links (i) Better efficiency • Travel time saving • Congestion relief • Accessibility (ii) Decrease in cost • Travel cost of individual and freight • Production costs • Public service costs (iii) Jobs creation and Jobs/housing balance (iv) Attraction for private investment and skilled labour (v) Impacts on local and regional economy	**2 Social development links** • Eroding public spaces / social & recreational services • Safety • Displacement • Housing affordability • Consumer preferences • Health impacts
3 Environmental development links • Pollution impacts • Green space impacts	**4 Spatial planning links** • Urban and suburban development • Land development • Transport network development

Source: Chohan et al. (2011, p.9)

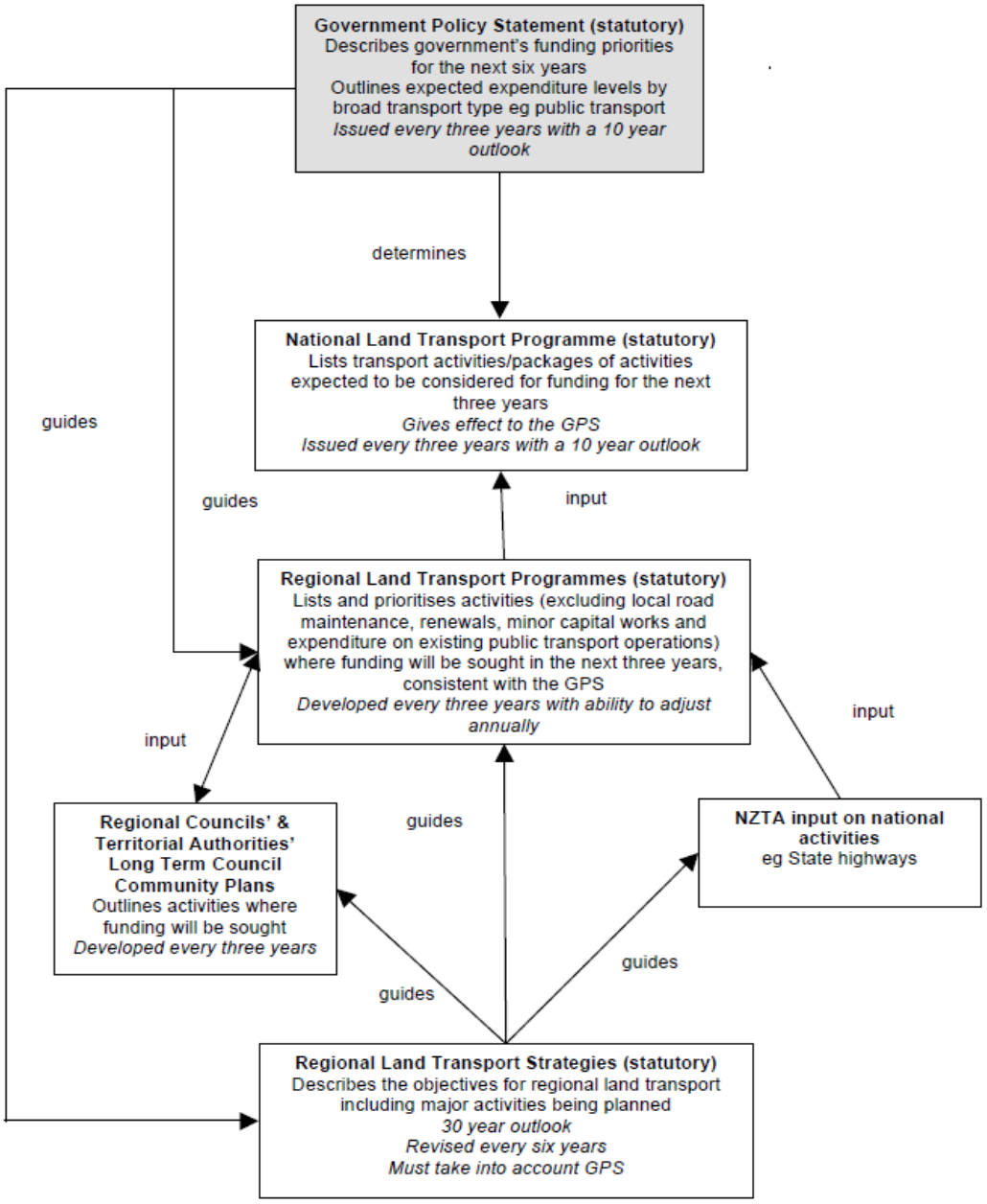
through public resources as noted by Shaw and Eichbaum(2011). Banister and Berechman (2001) argue that the relation between transport investment and economic development is quite complex. They further note that this complexity increases when placed against new funding priorities and mechanisms. These funding priorities and mechanisms are set by the government in the form of transport policy. Shaw and Eichbaum (2011) argue that public policy is normative in nature which means it has the vision of the way things 'should be'. They further note that this element of 'should be' is largely influenced by those who engage in the policy process such as politicians, interest groups and individuals having strong views about what should be done. The implications of this 'should be' element for economic development become more complex when coupled with, what Flyvbjerg (2008) calls, *optimism* bias and *strategic misrepresentation*. Kahneman and Tversky (cited in Flyvbjerg, 2008) coin the notion of 'the planning fallacy'. The term describes a systematic fallacy in decision-making and planning in which the policy-makers underestimate the costs, risks of planned action and completion times. They also overestimate the benefits of the same actions. The implications for such a practice may result in reverse development. Chohan et al.(2011) present four sets of factors which relate transport investment with sustainable economic development. The authors argue that these factors, as outlined in Table 1, need to be covered under a transport policy for long-term economic development to take place.

2.1 New Zealand land transport policy

This section aims at identifying the policy objectives and key arguments regarding road investments in New Zealand with a particular focus on Wellington Region. New Zealand Transport Strategy (2002) notes that transport investments in New Zealand have mainly been made through public funding resulting in an extensive network of roads. This section first takes up the New Zealand central Government transport policies and later discusses the regional and local transport policies of the Wellington Region. The main policy-making institutions in New Zealand, as presented by Shaw and Eichbaum (2011), include: (i) The constitution, (ii) parliament, (iii) cabinet and the Prime Minister, (iv) The Public Sector and (v) The judiciary. They also note that policy development in New Zealand is influenced by, (i) policy process, (ii) political parties, (iii) advisers and officials, (iv) interest groups in policy making and (v) economics, politics and policy making. Shaw and Eichbaum (2011) further state that Part 2 of the New Zealand Constitution deals with the executive wing of the government . All ministers including the Minister for Transport are members of the *Executive Council* which is the highest formal instrument of the New Zealand government. With these political and constitutional backgrounds in the backdrop, New Zealand transport policies at central and regional levels will be discussed. The Land Transport Management Act 2003 remains the main legal document providing guidance to the New Zealand transport policy documents.

Figure 1 presents various New Zealand transport policy documents and their comparative importance and relevance with each other. Under the Land Transport Management Act 2003, the main transport policy-making document is the Government Policy Statement (GPS). It describes the government funding priorities within next six years and is issued every three years with a ten years vision in perspective. Basically, the GPS acts as a guide for Regional Land Transport Strategies (RLTS) and Regional Land Transport Programmes (RLTP). The GPS is also instrumental in determining the National Land Transport Programme (NLTP) as per the input provided by RLTP. The RLTS further acts as a guide for New Zealand Transport Authority (NZTA) in the formulation of Regional Councils' and Territorial Authorities' Long Term Council Community Plans. Each policy document with its comparative relevance with others has been shown in Figure 1. This indicates that GPS is the most important transport policy document in New Zealand and all other transport policy documents derive their strength from GPS. With particular reference to the Wellington Region, The Wellington Regional Land Transport Strategy 2010-40 is the second most relevant document dealing with transport policy of the Wellington Region. The New Zealand

Figure 1: New Zealand transport policy documents and their comparative relevance



Source: New Zealand Government (2009 p.6)

Government (2009) represents the government policy statement for the period from 2009 to 2018 (GPS 2009). The document reveals that the primary objective of the NZ government is to achieve economic growth and productivity through transport investments. The term 'economic development' has not been used in the entire document. The GPS-2009 states that the primary purpose of the NZ government is to achieve economic growth and productivity. To achieve this purpose the document presents a number of factors as shown by Table 2. A comparative appraisal of these factors vis-a-vis the factors given in Table 1 has also been presented in Table 2. The document wishes to achieve economic growth and productivity through better efficiency of people and freight. It justifies investments in State highways as a key to efficient movements of people and freight. The document also wishes to generate better value for money (VFM) from various transport investments but it is not given how these objectives will be achieved. According to NZ Government (2009 p.10),

> The government's priority is for land transport investment to support national economic growth and productivity. The GPS will ensure the use of land transport does by directing investment into high quality infrastructure projects and transport services that encourage the efficient movement of freight and people.

According to the Minister of Transport (cited in New Zealand Government (2009, p.2)),

> I am confident the GPS provides the right signals to ensure that the land transport network makes a positive contribution to New Zealand's economic well-being and assists in achieving the priority of economic growth and productivity. Through well-targeted investment we can support New Zealanders during these difficult economic times and lay the foundation for a rapid recovery when the global economy grows again.

The document states that well-targeted transport investment will result in improved employment and productivity and lay the ground for robust future economic growth. It also states that congestion results in negative impacts on growth and state highways investments are, therefore, crucial. GPS-2009 justifies the State highway investment on the basis of 'congestion relief' and 'safety' factors. The New Zealand Government (2009 p.10) states,

> Unless investment in State highways is addressed, congestion will continue to negatively impact on economic growth and productivity. Investment in State highways will also make some of our busiest roads safer.

For funding purposes, the New Zealand Government (2009) classifies various transport activities into sixteen classes called 'activity classes'. It also gives funding ranges and jurisdiction for various 'activity classes'. For projects prioritisation, the only given criteria is the benefit-cost ratios. According to the New Zealand Government (2009 p.16),

> The NZTA's evaluation processes will be adjusted to give projects with high benefit cost ratios (BCR) higher funding and programming priority and give projects with low BCRs more scrutiny. This change will place the onus on the organisations seeking funding from NZTA to give priority to higher BCR projects.

According to the NZ Government (2009, p.10),

> Well-targeted land transport investment will keep people in employment, improve productivity and lay groundwork for robust economic growth in future.

The GPS (2009, p.13) provides funding ranges for various activity classes. For the purpose of analysis, this study has taken average funding range figures. The purpose is to analyse year-wise funding trend for four most relevant classes for first six years as shown by Figure 2. It's upward ascending trend shows that the government's main priority is to invest heavily and continuously in 'new and improved infrastructure for State highways' in next five years. Surprisingly, the investment trend in this 'activity class' goes much higher than $ 1000 million by the year 2014-15. Other three class activities also show rising trend but they remain slightly above $ 200 million by 2014-15 as shown by Figure 2.

The Land Transport Management Act (2003, cited in New Zealand Government, 2009) requires the GPS to contribute to the objective of achieving an affordable, integrated, safe, responsive and sustainable land transport system. It also emphasises to achieve each of the following factors: (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. The GPS 2009 does not mention the term 'economic development' in the entire document. Although it talks about reduction in deaths and injuries from road accidents, it does not mention how the public health issue will be addressed. The Land Transport Management Act 2003, talks about economic development and sustainability whereas the 2009 GPS lays more emphasis on economic growth and

productivity. A comparative factors analysis between the Land Transport Management Act, 2003 and GPS, 2009 is given in Table 3.

Table 2: A comparative factors analysis between GPS 2009, Wellington Regional Land Transport Strategy 2010-40 and Table 1

Policy document	Main issues discussed	Closest common factors in comparison to Table 1	
New Zealand Government (2009), GPS-2009	Identifies the following impacts that contribute toward economic growth and productivity: 1-Infrastructure improvements and services that enhance transport efficiency and lower transport cost through: i-Improvements in journey time reliability, ii-Easing congestion, iii-More efficient freight supply chains and iv-Better use of existing transport capacity 2-Better accessibility to markets, employment and areas that contribute to economic growth, 3-A secure and resilient transport network.	(i) (ii) (iii) (iv) (v) (vi) (vii) (viii)	Travel time saving Congestion relief Accessibility Travel cost of individual and freight Accessibility Jobs creation Transport network development Safety
	Also identifies following other impacts/factors not specified as contributing to economic growth and productivity but the NZ government wishes to achieve: i-Reduction in deaths and serious injuries from road crashes, ii-More transport choices especially to those with limited access to a car, iii-Reduction in environmental effects from land transport and iv-Positive health outcomes.	(i) (ii) (iii) (iv)	Safety Accessibility Pollution impacts Health impacts
Greater Wellington Regional Council (2010), Wellington Regional Land Strategy 2010-40	Presents the following main objectives: i-Assist economic and regional development, ii- Assist safety and personal security, iii-Improve access, mobility and reliability, iv-Protect and promote public health, v- Ensure environmental sustainability and vi- Ensure that the Regional Land Transport Program is affordable for regional community.	(i) (ii) (iii) (iv) (v) (vi) (vii) (viii) (ix)	Travel time saving Congestion relief Accessibility Pollution impacts Transport network development Safety Land development Health impacts Travel cost of individual and freight

Source: The authors (based on analyses of New Zealand Government (2009), Greater Wellington Regional Council (2010) and Chohan et al.(2011))

With particular reference to the Wellington Region, GWRC[1] (2010) is the main transport policy document called the Wellington Regional Land Transport Strategy (WRLTS) 2010-40. GWRC (2010) is a statutory document and provides strategic framework for investment for the Wellington Region's land transport network on the basis of: (i) the identification, selection and prioritising regional transport activities / projects, (ii) monitoring network performance and (iii) reviewing Implementation and Corridor Plans[2]. The Strategy is developed under the provisions of Land Transport Management Act, 2003. The overall vision of WRLTS 2010-40 aims to achieve economic development and productivity on the basis of following factors: (i) accessibility, (ii) reliability and (iii) safety. Other factors mentioned by the document include, convenient walking and cycling, easy access to public transport and congestion relief. The consequences for the risk and impacts of climate change and diminishing non-renewable resources have been left to the peoples' travel choices. Out of the seven Roads of National Significance identified by GPS 2009, the Strategy confirms an investment of over $2 billion on the Wellington Road of National Significance from Wellington airport to Levin. A comparative factors analysis between the Regional Land Transport Strategy 2010-40 and Table 1 has been presented in Table 2 above.

[1] Greater Wellington Regional Council

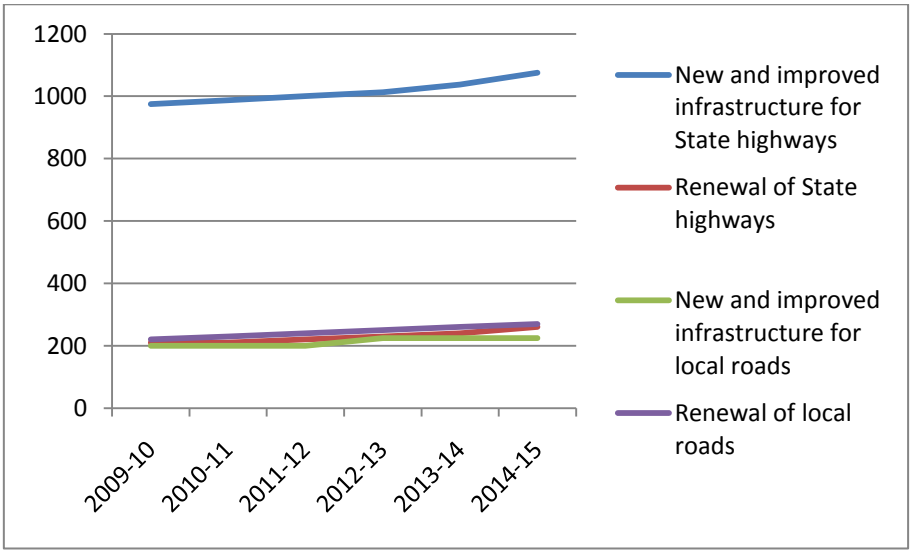
[2] Corridor and Implementation Plans detail the projects and activities within the Region.

Table 3: A comparative analysis between the requirements of the Land Transport Management Act 2003 and what GPS 2009 is delivering

The Land Transport Management Act 2003	GPS 2009
Requires the GPS to contribute in achieving the aim of (i) affordable, (ii) integrated, (iii) safe, (iv) responsive and (v) sustainable land transport system. Also requires GPS to achieve, (i) Assisting economic development, (ii) Assisting access and personal security, (iii) Improving access and mobility, (iv) Protecting and promoting public health and (v) Ensuring environmental sustainability	It wishes to achieve following 'short to medium-term impacts, (i) Economic growth and productivity, (ii) Reduction is deaths and injuries from road crashes, (iii) A secure transport network, (iv) Better accessibility to markets and employment, (v) Reduction in environmental effects and (vi) Positive health outcomes.

Source: The authors (based on analyses of New Zealand Government (2009) and the NZ Land Transport Management Act 2003 cited in New Zealand Government (2009, p.10))

Figure 2: A graphical trend of year-wise funding (in $ millions) by the NZ government for four transport 'activity classes'



Source: The authors (based on average figures taken from New Zealand Government (2009, p.13))

2.2 Pakistan land transport policy

Pakistan is characterised by its centrally administered system of governance in which the federal government plays a pivotal role in formulating and implementing policies (see, for example, Imran (2010)). He notes that a comprehensive transport policy statement in Pakistan has been rare between the years 1947 to 1990. Practically, the process of transport decision-making in Pakistan is carried out both at federal and provincial levels. The demand and policy for more urban roads in Pakistan derive its origin from the Medium Term Development Framework (MTDF) contained in the Planning Commission (2005). The document sets an ambitious goal for Pakistan to be an industrialized country by the year 2025. Planning Commission (2005) presents an integrated approach called 'Pakistan Incorporated'. This approach envisages tripartite elements of growth; i.e. development of (1) infrastructure, (2) human resource and (3) technology within the broad parameters of macroeconomic framework. According to the World Bank (2007, p.1),

> The transport system in Pakistan generates high economic losses from a mismatch between supply and demand for transport services and supporting infrastructure.

Japan International Cooperation Agency (JICA) (2006) estimates that Pakistan's future transport demand will grow by three times of the present demand by 2025. At the federal level, Planning Commission is the top policy making body in Pakistan and is entrusted with economic planning, development and reforms. Various transport studies including JICA (2006) indicate that most transport policy documents in Pakistan derive their basis and strength from the guidelines and vision established by the Planning Commission. Table 4 shows a comparative analysis between various factors identified by the federal government of Pakistan and those identified by Chohan et al. (2011) in Table 1.The absence of an authentic transport policy document at the federal government level indicates Pakistan government's lack of capacity, also endorsed by Imran (2010, p.24), to develop transport policy. Resultantly the role of international development agencies such as the World Bank (WB), Asian Development Bank (ADB) and JICA remains paramount. These agencies have been involved in preparing Pakistan's transport policy directly or indirectly through financial and/or technical assistance. The World Bank's 2007 report identifies some weaknesses in the transport system of Pakistan on the basis of certain factors shown in Table 5. The report also suggests that many of Pakistan's transport sector issues relate to policy and are institutional in nature and cannot be addressed merely through investments operations. The

Table 4: A comparative factors analysis between Planning Commission (2007) and Table 1

Policy document	Main issues discussed	Closest common factors in comparison to Table 1	
Planning Commission (2007), Government of Pakistan	It states that an efficient transport system contributes towards economic growth on the basis of following factors: i-It lowers domestic production costs thoroughly timely delivery of raw material, ii-Enhances economies of scale, iii-Creates economic opportunities, iv-Establishes, communication among people, v-Creates tremendous employment opportunities, vi-Helps in integrating markets, vii-Strengthens competition viii-Increases access to improved farming techniques, ix-Promotes trade, tourism and foreign investment and x-Contributes to government revenue through taxes	(i)	Travel cost of individual and freight
		(ii)	Production cost
		(iii)	Impacts on local and regional economy.
		(iv)	Jobs creation and jobs/housing balance.
		(v)	Attraction for private investment and skilled labour
		(vi)	Housing affordability
		(vii)	Accessibility

Source: The authors (based on analyses of Planning Commission (2007) and Chohan et al.(2011))

ADB also attempted to formulate a transport policy for Pakistan. The main purpose of the ADB (2008) was to enable the Government of Pakistan to formulate a comprehensive transport policy that could represent the interests of all stakeholders through consultative process. The report suggests that reduced transport impact on Pakistan's economy is not due to lack of planning, rather to the inability of responsible government bodies to develop a comprehensive transport policy through coordinated efforts. The report identifies some key issues, as shown in Table 5, by which Pakistan's transport sector is constrained. Referring to the WB's sponsored Transport Sector Development Initiative (TSDI) program, ADB (2008) states that the government of Pakistan assigned the job of utilising the findings of TSDI to the National Transport Research Centre (NTRC), Ministry of Communications. But NTRC remained unsuccessful to develop a draft transport policy document due to lack of capacity. As shown by Table 5, JICA (2006) also suggests some policies and strategies regarding Pakistan's transport system. Table 5 presents a comparison between various transport issues/factors identified by WorldBank (2007), ADB (2008) and JICA (2006) with the factors identified by Chohan et al. (2011).

With a population of about 9 million, Lahore is the capital city of the Punjab Province of Pakistan. According to Government of the Punjab (2010), the road network in the Punjab was 82000 kilometres in 2009 and the value of road assets exceeds Rs. 200 billion. At

provincial level, the Urban Unit (2008) identifies some issues confronted by the Punjab transport sector as shown in Table 6. Planning & Development Board (2010b) projects the cities as engines of growth and as places of exchange and flow where the role of society is to accumulate, redistribute and concentrate capital. The Vision 2020 of the Chief Minister Punjab endorses the idea of cities as engines of economic growth and lays emphasis on enhancing productivity of cities in the changing macroeconomic context. Another document, Planning & Development Board (2010a) outlines the transport vision, objectives, new initiatives and strategic interventions of the Punjab government. The main policy issues raised by this document along with a comparative factors analysis are noted in Table 6. A detailed historical purview of the development of transport policies in Pakistan (including Lahore) has not been covered here as the same has already been discussed by Imran (2010, pp.54-79). According to Imran (2010, p.105),

> The discourse on enhancing economic competitiveness by building more roads has been very strong throughout the history of Pakistan

Table 5: A comparative factors analysis between various transport policy documents of Pakistan and Table 1

Policy document	Main issues discussed	Closest common factors in comparison to Table 1	
World Bank (2007)	Identifies following weaknesses in the transport system of Pakistan: i-High port costs resulting in higher charges for the users, ii- Poor highway conditions and weak highway management, iii- High truck overloading that results in roads damage and higher incidences of road accidents, iv- Low port productivity and undue delay for inbound containers by the customs department, v- Insignificant volume of rail freights, not proportionate with the potential that railways carry, vi- Pakistan Railways being an unprofitable and financially unsustainable department, vii- Lack of trade facilitation reforms in the customs department, viii- Weak and fragmented freight forwarding and logistics sector.	(i) (ii) (iii)	Travel time saving Health impacts and safety Travel cost of individual and freight
Asian Development Bank (2008)	Identifies the following key issues by which the Pakistan transport system is constrained: i-multi-modal share distribution, ii- preservation of existing assets, iii- project prioritization, iv- portfolio management, v- effective public and/or private sector initiatives and vi- adequate and stable funding.	(i) (ii)	Better efficiency Attraction for private and skilled labour
Japan International Cooperation Agency (2006)	Suggests following three policies and seven strategies: POLICIES: i- A transport system supportive to economic and social activities, ii- A supportive transport network for balanced growth of regional economy and iii-Realizing optimal modal share in the transport network. STRATEGIES: i- Financially realizable Master Plan, ii- Transparent prioritisation, iii- Pursuit of road safety, iv- Inter-modal facilities development, v- Cross-border facilities development, vi- Institutional capacity enhancement and vii- Environmental conservation	(i) (ii) (iii) (iv) (v) (vi) (vii)	Pollution impacts Travel time saving Congestion relief Accessibility Health impacts and safety Jobs creation and jobs/housing balance Impact on local and regional economy

Source: The authors (based on analyses of World Bank (2007), Asian Development Bank (2008), Japan International Cooperation Agency (2006) and Chohan et al.(2011))

His argument is further endorsed by the facts and figures provided by the Government of the Punjab (2010). The document shows an allocation of Rs 32885 million for road projects in the Punjab for the year 2010-11. With an increase of 22.2%, transport investments for the year 2011-12 have been projected at Rs 34230 million. For the year 2012-13, again there is an increase of 21% to project the transport funding at Rs 36000 million. This annual roads construction funding trend has been graphically illustrated in Figure 3. A similar ascending trend also follows for 'urban development' but the funding amounts for the roads investments remain highest. Transport policy for Lahore has been revolving around the Lahore Ring

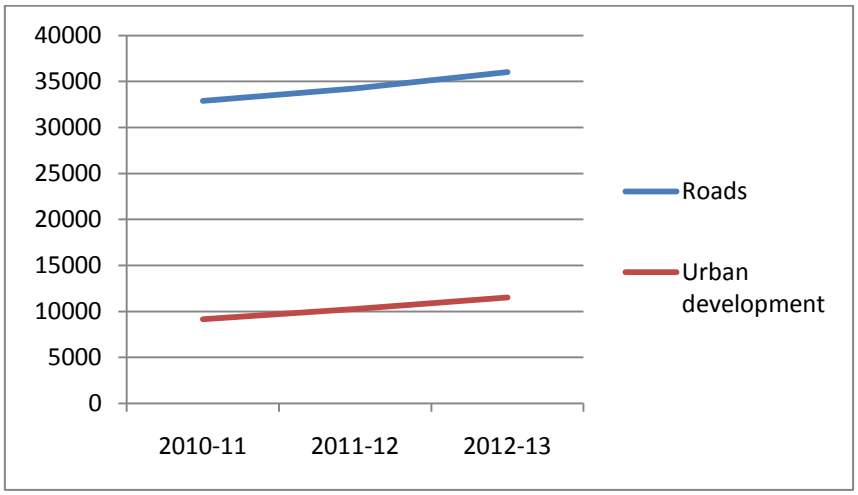
Road Project (LRRP) and the Lahore Rapid Mass Transit Project (LRMTP) for the last three decades (see, for example, Lahore Development Authority (LDA) (2004a)). In recent days the projects of flyover and underpass at the famous Kalma Chowk have also entered the orbit and queue of the Lahore transport projects.

Table 6: A comparative factors analysis of the transport policies of Punjab Province and Lahore City with Table 1

Policy document	Main issues discussed	Closest common factors in comparison to Table 1	
Urban Unit (2008), Punjab Provincial Government, Pakistan	It states that the Punjab province faces following transport issues: i- Rapid urbanization and pressure on urban transport, ii- Poor levels of urban service delivery, iii- Inadequate public transport, iv- Urban congestion, v- Premature road failure, vi- Non-existence of drainage along transportation corridors, vii- Overloading by transporters, viii- Parking problems ix- Insufficient transport budget, x- Inadequate relationship between land-use and transportation, xi- Mix of transport, xii- Illegal encroachments, xiii- Road safety, xiv- Ineffective and obsolete traffic laws and xv- Ever increasing pollution	(i) (ii) (iii) (iv) (v) (vi) (vii) (viii)	Pollution impacts Travel time saving Congestion relief Public service costs Better efficiency Land development Transport network development Health impacts and safety
Planning & Development Board (2010a), Punjab provincial Government, Pakistan	Discusses the following main points: i- Providing accessible and time-saving travelling, ii- Developing environment friendly transport system, iii- Developing Rapid Mass Transit and integrated traffic management system, iv- Controlling vehicles emissions, v- Generating employment opportunities vi- To encourage and facilitate transport investments by the private sector, vii- Introduction of environment friendly transport system (including CNG buses), viii- Preparing Transport Master Plan for all major cities of Punjab with the help of JICA and ix- Capacity building the transport department with the help of Transport Planning Unit.	(i) (ii) (iii) (iv) (v) (vi)	Jobs creation and jobs/housing balance Attraction for private investment and skilled labour Housing affordability Accessibility Travel time saving Pollution impacts

Source: The authors (based on analyses of Urban Unit (2008), Planning & Development Board (2010a) and Chohan et al.(2011))

Figure 3: Graph showing year-wise roads construction funding (Rs in million) trend in the Punjab Province, Pakistan.



Source: The authors (based on figures/ data available in Government of the Punjab (2010, p.3))

3. Discussion

Having discussed relevant transport policy documents both in New Zealand and Pakistan, we return to the four basic questions of phronetic planning. In order to right align the

direction of transport planning, it is important to have a clear understanding of the objectives of any transport investment. In the case of New Zealand, GPS 2009 wishes to achieve economic growth and productivity through building more roads without a formal theoretical and conceptual framework. For example, Cadot et al. (2002) argue that the relation between building roads and economic growth is an unsettled question. It is also important to understand whether 'economic growth' and 'economic development' are synonyms or not in the policy context.

The New Zealand transport policy documents do not distinguish between 'economic development' and 'economic growth'. Table 3 shows that Land Transport Management Act 2003 legally requires the GPS to assist economic development but the whole thrust of GPS 2009 is on achieving economic growth and productivity. The GPS 2009 does not use the word 'economic development' throughout the document. Arguably, either the NZ government considers 'economic development' as a synonym to 'economic growth and productivity' or there is a breach of requirements set by the Land Transport Management Act 2003 by the GPS 2009, both scenarios being detrimental to the formulation of a sustainable transport policy. We observe that the GPS 2009 basically makes three strong justifications for transport investments: (i) increased employment, (ii) productivity and (iii) groundwork for future economic growth. The structure and chemistry of this statement seems quite optimistic and thus qualifies for the relevant transport investments to take place. But, unfortunately, it would be very hard to find some model or theoretical explanation which could relate transport investment with economic growth, productivity and ever increasing employment (see, for example, Domar (1946), Harrod (1948), Solow (1956), Romer (1990) and Lucas (1990)). Now the question is why GPS 2009 has made such a strong statement in contradiction to the existing theories on economic growth? Basically building more roads simply means more investment in country's *physical capital* and according to above referred economic growth theories, *physical capital* is important but not the only factor that could increase per capita income and GDP. It is not clear why the NZ government considers that transport investment will increase employment, productivity and economic growth. Under the present formal paradigm of social sciences, such a contradiction in policy-making could either arise from what Button (1993) refers to as 'logical positivism' or what Flyvbjerg (2008) calls *over-optimism* and *misrepresentation*. Here it is appropriate to further examine the GPS 2009 for insights into the government's policy and thinking. The New Zealand Government (2009, p.10) states,

> Investing in State highway is important as there are significant constraints on its current capacity to efficiently move freight and people, leading to congestion in New Zealand's major cities. Unless investment in State highways is addressed, congestion will continue to negatively impact on economic growth and productivity. Investment in State highways will also make some of our busiest roads safer.

In general, this statement covers two factors: (i) congestion and (ii) safety. It also treats congestion as bad for economic growth and productivity. But the implications of congestion for economic growth remain controversial among researchers and policy makers. For example Eicher and Turnovosky (1998), Weisbrod (2008), DeSerpa (1971) and Mohring et al.(1987) support a negative relation between congestion and economic growth. However, some researchers consider congestion to be an indicator of prosperity. For example, with reference to transport investments primarily aimed at relieving congestion, Vickrey (1969) argues that such investments, with the criteria of apparent profitability, may be seriously misleading and in opposite direction. According to Downs (2004, p.11),

> Traffic congestion can be viewed as a sign of prosperity and economic success, rather than as a wholly negative phenomenon. Traffic becomes heaviest in economic booms, and notably declines in recessions. In fact, the quickest way for a region to reduce intensive congestion is to encounter a serious recession --- hardly a remedy anyone desires.

With these contradictions regarding the role of congestion in economic growth, the case of 'congestion relief' as an agent of economic growth and productivity becomes weak. But GPS 2009 asserts that *'unless investment in State highways is addressed, congestion will continue to impact negatively on economic growth and productivity'*. We find no clear theoretical basis for such a policy assertion. There is also a rising voice of researchers who favour a divorce between transport investments and economic growth. For example, Stead (2001) sees no reason to relate transport growth with economic growth. Banister and Berechman (2001) coin the notion of 'de-coupling transport from economic growth' and note that a policy should be seeking reduced transport activity while maintaining economic growth. For transport projects funding priorities, GWRC (2010) and New Zealand Government (2009) mainly rely on benefit-cost-ratios (BCR) of projects in prioritising the projects funding. This would mean that projects with higher BCR will be given priority. This would further mean un-sustainability of transport projects and total reliance on physical dimension of spatiality while ignoring the social factors that shape the use and understanding of space (see, for example, Bhabha (1990), Foucault (1986)). As shown in Table 1, Chohan et al.(2011) present an integrated transport approach on the basis of economic, social, environmental and spatial links for sustainable economic development to take place. Table 2 shows that both GPS 2009 and Wellington Regional Land Transport Strategy 2010-40 do not reflect all of these links. This approach is also in consonance with Banister and Berechman (2001) who, in addition to BCR, recommend carrying out further 'complementary economic development analysis' to cover social, environmental and spatial impacts. Root (2003) argues that cost-benefit analyses do not just describe real situations as they are based on assumptions generated by the modelling techniques. Even the idea of 'safety' from building more roads does not find much support from the theory. For instance, Ewing et al. (2003) cited in Litman (2009)) find higher per capital traffic deaths in sprawled communities. Durning (1996) and Lucy (2002) also note higher crash rates in sprawled communities. Ross and Marcus (2008) argue that lack of safe, convenient places and ways to walk and bicycle have led to sedentary lifestyles, feeding a massive epidemic of obesity and chronic diseases'. Similarly there are environmental consequences for increasing the number of vehicles by building more roads. Therefore the idea of 'safety' cannot be necessarily linked with building more roads. The literature, therefore, does not give strong support to the idea of achieving economic growth and productivity through building more roads. With this background, Figure 2 does not reflect a very good picture about transport investments in New Zealand. It shows a general ascending trend in all four activity classes but a rise in already very high investments in 'new and improved infrastructure for State highways' for next five years is quite alarming. As stated above, the theory does not agree that such huge investments in State highways will result in economic growth and will, therefore, not benefit common people. *Such planning and development is obviously not desirable.*

In the case of Pakistan, we do not find any tangible transport policy mechanism that could be followed both at federal and provincial levels. The demand and policy for building more roads derive their strength from the guidelines set by the Planning Commission, Government of Pakistan. The Planning Commission (2005) envisages Pakistan to be an industrialised country by the year 2025 which is not only over-ambitious but unrealistic as well. The reason is the country's ongoing deteriorating economic performance coupled with political instability. Such a statement may qualify for what Flyvbjerg (2008) refers to as *over-optimism* and *misrepresentation* to gain political mileage. Pakistan does not have a separate Ministry of Transport both at federal and provincial levels and the transport sector is dealt with in conjunction with other subjects on ad-hoc basis. This factor is also reflective of the government's lack of transport vision. According to the Planning Commission (2007), the government of Pakistan envisages an integrated and efficient transport system that could facilitate the development of competitive economy and reduce poverty. The document does mention some of the key factors such as safety, mobility, accessibility and connectivity but the strategies presented to achieve these goals are quite verbose and do not reflect a clear

institutional transport policy mechanism. For example, one of the strategies mention 'optimal utilisation of existing capacity' but no plan to move forward with this strategy has been given. Same is the case with all other strategies.

The Planning Commission (2007) states that an efficient transport system contributes towards economic growth on the basis of following main factors, (i) reduced production costs, (ii) economies of scale, (iii) employment opportunities, (iv) connectivity, (v) markets integration and (vi) accessibility. Although the document attempts to identify some relevant factors but lacks a plan for way forward. Comparative factors analysis in Table 4 reveals that the Planning Commission (2007) does not cover most of the factors covered in Table 1. Even the basic factor of 'travel time saving' has not been mentioned by it. Congestion is a big problem of main Pakistani cities of Lahore, Karachi and Islamabad but, surprisingly, the issue of 'congestion relief' has not been mentioned in the entire document. Most of Pakistan's basic transport policy documents have been prepared by various world development agencies (see, for example, World Bank (2007), JICA (2006), ADB (2008)). Table 5 shows a comparison of factors identified by these agencies with Table 1 and reveals that none of these studies were ever aimed at bringing about sustainable economic development in Pakistan. With reference to the Punjab Province, a comparative factors analysis has been presented in Table 6. It shows that the Urban Unit (2008) and the Planning & Development Board (2010a) do cover some of the key development factors but still lack basic policy thrust to meet the requirements of sustainable economic development. Despite these policy drawbacks, Figure 3 and Government of the Punjab (2010) show a continuous increase in funds allocation for building more roads in Punjab within next three years. It further shows that other issues pertaining to urban development remain far below in funding priority as compared to roads. There is no policy criterion for prioritising funds allocation for a particular road project in Punjab. It is the Provincial Chief Minister who is practically all in all to decide whether to launch a project or not. Unlike Wellington, the transport policy of Lahore is not a result of a systematic chronological trickle-down effect of the central government policies and there is no GPS like parallel document in Pakistan. LRRP and LRMTP along with flyover and underpass at Kalma Chowk remain the pivotal point for Lahore transport policy. Khan (2008) states that the idea of LRRP was conceived some twenty five years ago with a purpose to ease traffic congestion in the city. According to Khan (2008, p.1),

> 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.

The political assertion in building roads in Pakistan has been very high. For example, Haq (2011) reports that the Chief Minister Punjab has ordered that the flyover and underpass at Kalma Chowk be completed within a period of eight months (instead of actual eighteen months time) so that he could carry out opening ceremony of the project on the Independence Day. Analysts argue that approval of such a mega transport investment without any formal policy is a tool by the Punjab Government to gain political mileage. For example, Ghazali (2011) states that the construction of the underpasses and flyovers in Lahore is not part of any formal comprehensive transport policy. He argues that the Punjab Government decided to launch infrastructure development (flyover and underpass) at Kalma Chowk (Lahore) without waiting for the results of (JICA) transport study. The article further considers this decision as 'ad hoc announcement' to gain political mileage. He further notes that such ad hoc announcements lack 'actual analysis' and can neutralise or worse derail-implementation of earlier transport plans. *This type of development is also not desirable.* Media is full of criticism on Punjab government's political assertions in transport projects. For example, according to Dawn (2011, p. 1),

> As usual, the pretext has been to minimise traffic congestion and ensure smooth movement of vehicles on the thoroughfare. Cutting of trees to build underpasses and widen Canal Bank Road has merely increased volume of traffic there and not prevented congestion. The answer lies in integrated management of cities, provision of efficient and economical public transport besides equitable dispensation of resources in a sustainable and greener way.

This means that power-mongers and interest groups are so strong in Pakistan that the transport policy making institutions, if any, do not have scope to have their say independently. It is this tug-of-war among various stake-holders, politicians, power-mongers and interest groups that there is no coherent transport policy in the country to be followed.

4. Concluding remarks

As compared to Pakistan, New Zealand land transport legislation and policy framework provides a clear and better set of institutional arrangements for governing transport. Figure 1 and Table 3 are indicative how institutions play their role in framing and strengthening transport policies in New Zealand and what is the trickle-down effect of central transport policies at the local levels and how these policies are passed at the intermediate levels. GPS 2009 is itself quite a coherent document particularly with reference to the operational transport policy hierarchy as shown in Figure 1. However, New Zealand's transport decision-making remains quite assertive and there is a clear element of political assertion that over-shadows technical and theoretical recommendations on transport projects. These political assertions result in policy manipulations in New Zealand which are sometimes covert (for example, treating 'economic development' as a synonym to 'economic growth') and sometimes overt (for example, building seven Roads of National Significance openly). Prioritising transport projects funding merely on the basis of higher BCR is not desirable. The elements of *optimism bias* and *misrepresentation* are quite visible in the recent transport policy documents of New Zealand. This scenario brings the New Zealand transport policies under the ambit and influence of the Theory of Planning Fallacy. The theory, as defined earlier, is a fallacy in decision-making and planning under institutional and systematic framework. The planning fallacy causes policy-makers to under-estimate the costs, risks and completion times. It also makes them over-estimate benefits of the planned actions. Figure 2 is reflective how the New Zealand government intends to invest huge amounts in building new roads in the country without a theoretical justification. This is obviously *over-optimism* if not *misrepresentation*, or even both, thus resulting in transport planning fallacy.

As compared to New Zealand, transport policy-making in Pakistan is constrained by two issues, lack of institutional capacity and undue political assertions. Presently there is no coherent transport policy statement available with the Government of Pakistan. There is no Ministry of Transport, both at federal and provincial levels, which could deal with the subject exclusively resulting in haphazard and hasty transport policies at all levels. This has further increased Pakistan's dependence on international development agencies like WB, ADB and JICA. Ever increasing transport funding by the Punjab government, as shown by Figure 3, indicates how ambitious it is to continue with building roads within next three years. There is no formal policy criterion for prioritising transport funding except traditional ill-managed cost-benefit analysis in Pakistan. This has further increased the scope and strength of political assertions in transport policy making in Pakistan. Like New Zealand, the application of transport planning fallacy is quite visible in Pakistan as well. The insistence of the Chief Minister Punjab to complete an eighteen months time duration transport project in eight months is evidence in this regard.

From this comparative transport policy analysis, we see that political assertions in transport policy-making are common in New Zealand and Pakistan. New Zealand being a developed country does have better transport policy institutions. Pakistan needs both institutional capacity and planning to ensure sustainable economic development from transport investments. The findings of this study may be helpful in other similar studies aimed at

comparing transport policies of developed and developing countries. The study has also reasonably addressed the first three questions of the phronetic planning research, however, the fourth question "what should be done?" remains unanswered. *Reference class forecasting techniques* may be helpful for such an enquiry. As political assertions in transport policy-making process derive their strength from the prevailing power mechanism in the two countries, an investigation into power-dynamics with the aim of understanding the rationales behind the so-called planning fallacy may result in answering this question. Such an investigation may also address the issue why New Zealand and Pakistan both experience *the planning fallacy* despite different transport policy institutional structures. This particular enquiry will be covered in another research paper by the authors.

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