EFFICACY OF RECENT TRANSPORT POLICY MAKING AND IMPLEMENTATION IN SOUTH AFRICA

MALCOLM MITCHELL
JACKIE WALTERS
(jwalters@uj.ac.za)
Department of Transport and Supply Chain Management
University of Johannesburg

ABSTRACT

Despite the importance of transport to the social and economic development of a country, very little, if any, work appears to have been done in South Africa to assess the impact of transport policy in achieving its aims and objectives. Two policy areas that have wide social and economic impacts are the public transport industry and the development of the national roads network. Public transport, or more specifically commuter bus transport policy, is aimed at improving the mobility and affordability of the travelling public while at the same time increasing the transparency of the subsidy system through a tender and negotiated contract regimen. The policy on national roads directly impacts the general economy as an estimated 88% of all freight tonnage (excluding the dedicated iron ore and coal lines of Transnet Freight Rail) is moved over the road network of South Africa with the national roads linking the main economic centres of the country. This research assesses the impact of these two areas of policy making by comparing policies for commuter bus transport and primary (national) roads for two policy periods, namely, 1986 to 1994 and 1994 to 2004. The research methodology used is that of the mixed-methods research procedure explained more fully in the article and the annexure to the paper. The research arrives at conclusions in respect of the impact of the policy on the problems and issues in the two separate sectors of transport during the policy periods analysed. It also draws conclusions on the policy-making process used as well as identifying deficiencies in the process. Finally it makes recommendations to address these inadequacies.

INTRODUCTION

Perhaps the most pressing issue facing transport authorities in South Africa for the past three decades has been how to provide affordable and effective public transport for the more than 70% of the population who are dependent on this form of transport to meet their mobility needs (Department of Transport, 1999:26). A second issue of importance for many decades has been the effective provision of a sustainable primary road network to address the stated economic and developmental growth needs of the country (Mitchell, 2009:1). The latter is especially important as the main economic centre of South Africa is the province of

Gauteng which is located about 600 km from the nearest ports of Durban and Maputo and about 1 300 km from Cape Town. Road transport on these corridors therefore has a major economic impact on not only Gauteng but the South African economy as a whole. In fact the 'Moving South Africa' 20-year strategic framework for transport in South Africa states that a key policy implementation target is, *inter alia*, 'the establishment of a key strategic backbone road network' (Department of Transport, 1999:60).

Government's approach to the broad goal of moving people and goods in the most effective manner, taking into account the various problems, forces, exogenous factors, constraints and available resources involved in the process, is expressed in its transport policy (O'Sullivan, 1980:7-9), and more specifically in the White Paper on National Transport Policy of 1996. However it is the experience of the authors, substantiated by literature (Meyer & Cloete, 2005a:249-250), that public policies, of which transport policy is a subset, do not always achieve their goals, or have the intended impact on problems at which they are directed. Despite this often lack of congruence between what was intended and what actually occurred, little if any formal or structured substantive evaluation of the extent of and the reasons for this has been made in the transport sector in South Africa (Mitchell, 2009:9). There has also, in the opinion of the authors, been a lack of research into the transport policy-making process, the impact of the various transport policy directives and statements on the provision and operation of the transport system in the country, and on the manner in which transport issues have been identified, and policy formulated, and the extent to which it has been effectively implemented.

ESTABLISHING THE NEED

Since 1994 South Africa has been undergoing a metamorphosis from a non-fully representative society which did not necessarily adequately address the needs and problems of all members of society, into a fully representative one in which all people may have an opportunity to provide input into the transport policy agenda. Whatever the uncertain twenty-first century might hold for the South African land transport sector, it will exist in an environment different from that of the last few decades of the twentieth century, and will face different challenges. To remain relevant and effective in the new era, with its many and varied challenges, the transport sector will have to fully understand how transport policy is made, implemented and evaluated, and to appreciate the importance of the link between the professional and political processes in articulating public policy (Mitchell, 1994:1/63). Mitchell (1994:1/70) further stresses that if the transport bureaucracy is to continue promoting general welfare it must understand, and be responsive to, the challenge and real needs of contemporary society in its policy formulation. This will call for greater sophistication in transport policy making as well as a perceptive understanding of the process by all those involved.

However, the mere formulation of transport policy and the enacting of enabling legislation do not guarantee that policy objectives will be achieved. It is necessary to regularly monitor the policy and its implementation and, if necessary, to modify or strengthen the policy formulation and implementation process towards the achievement of the goals sought from it (Mitchell, 2009:6).

To address the problem of establishing the effectiveness of formulating and especially implementing transport policy in recent times in South Africa, a research project directed towards an analysis of aspects of recent (since the mid-1980s) transport policy in South Africa was commenced in 2006 and completed in 2009. Its aim was to determine the impact of the policy for commuter bus transport and primary roads provision on its stated objectives. The project was also directed towards identifying the contextual forces moulding transport policy in South Africa, as well as a comparison of the policy-making process used in transport with accepted policy-making approaches for public policy making within the discipline. An aim of the research was to propose improvements, where appropriate, to the transport policy-making process in the country.

While this research relates to an important aspect of the transport sector in South Africa, it was not directed towards a detailed analysis of the economic and social justification, or otherwise, or towards examining the economic or social returns on the investment in the two sectors of transport, as important as these facets might be. Instead it was directed towards discovering whether government's stated objectives in its policy have been met and, if they have not, analysing why they have failed. In line with currently accepted research procedures, experts chosen to participate in the research project are all well versed in policy making and are continuously involved in the respective sectors of the transport industry that were studied in this research project.

While transport is an important catalyst in both the social and economic development of a country, and in addition, because transport-related expenditure represents some 15% of the Gross Domestic Product (Department of Transport, 2005:8), the authors suggest that there has been very little, if any, analysis or monitoring of the efficacy of transport policy in this country, including the impact of the policy and the approach to transport policy formulation. This research attempts to analyse these issues in respect of commuter bus transport and primary road policy during two policy periods allied to the 1986 and 1996 Transport Policy White Papers, i.e. from the mid-1980s to the mid-1990s, and from the mid-1990s to the mid-2000s, respectively. While it is recognised that commuter bus transport forms one part only of the total public transport spectrum, it was felt it was necessary to 'ring fence' this facet for analysis since the study would otherwise have been very extensive in extent. The other facets, namely rail and minibus taxi, could well form the subjects of further studies.

RESEARCH OBJECTIVES

The objectives of this study were:

- to compare the transport policy-making process adopted in the primary roads and commuter bus transport sectors during the two policy periods, with theoretical concepts and knowledge within the policy-making discipline, particularly in respect of issue identification and of agenda setting and the implementation of policies, and
- to evaluate the impact of transport policy relating to primary roads and commuter bus transport in South Africa during two distinct ten-year periods separated by a regime change in 1994, in terms of the objectives as set out in the separate Transport Policy White Papers issued in 1986 and 1996, and the consequent legislation.

A subsidiary objective was:

- to examine the contextual forces shaping the issues, objectives and goals of these facets of land transport policy in South Africa during the two policy periods, as well as the influences of preceding decades.

These objectives are all within an overall objective of making proposals towards improving the transport policy-making process in South Africa where appropriate and necessary.

RESEARCH APPROACH

The objectives of this research, which are threefold as mentioned above, dictate the research approach which is modelled on current literature and approaches in the field of research methods.

The ontological approach to this study is based on a consideration that the objectives of the research are not of a purely deterministic nature. They can be predicted by cause-and-effect laws, but they need to be interpreted in terms of the contextual influences and meanings people in a specific setting attach to them. In other words the objectives of this study can be explained but not predicted on a purely rational cause-and-effect basis.

The research paradigm adopted for the analysis of the study objectives is that of constructivism embracing the pragmatic approach. The question then arises as to the most appropriate research methodology or approach to carry out the analysis.

Research into the study objective to determine the impact of the policy for the two facets of transport addressed in this study, for the two different policy periods, was carried out by the mixed-methods research approach, using the exploratory design procedure embracing a follow-up explanations model. The overall *modus operandi* of this research approach is the use of qualitative data to explain, or build on, initial quantitative results (Cresswell & Plano

Clark, 2007:71). For this purpose questionnaires were designed and mailed to a range of industry bodies and other role-players and the responses analysed. These results were then discussed with knowledgeable persons in transport policy making in both the focus areas of the research. The overall *modus operandi* of this design is the use of qualitative data to explain, or build on initial quantitative results (Cresswell & Plano Clark, 2007:71).

The analysis of the contextual forces which have influenced the policy-making process has been regarded as a qualitative study using a narrative approach. The analysis of the policy-making process used in the formulation of transport policy for the two specific policy periods is held to be best addressed through a qualitative approach and a case study procedure with a purposively chosen sample and open-ended interviews.

Epistemologically, qualitative research methods accept subjectivity in the research because of their interaction with the objective of the research (Schurink, 1998:242), where the intent of the research is to understand, in an inductive fashion, the meaning given to a phenomenon by the study participants. Researchers acknowledge possible bias and position themselves in the research (Cresswell & Plano Clark, 2007:21-31). With regard to data analysis, Poggenpoel (1998:344) suggests that in the analysis of qualitative data there is neither a right nor a wrong way to go about the task. The important issue is that through the various stages, such as inductive reasoning and analytic deduction, the final conclusions are based on generated data.

These separate phases of the research approach are illustrated in Figure 1, which sets out the different steps in the process. This research process, which is described in greater detail in an annexure to this paper, worked particularly well in this study as the main findings of the interview process (qualitative phase) were corroborated by the mixed-methods phase of the research process.

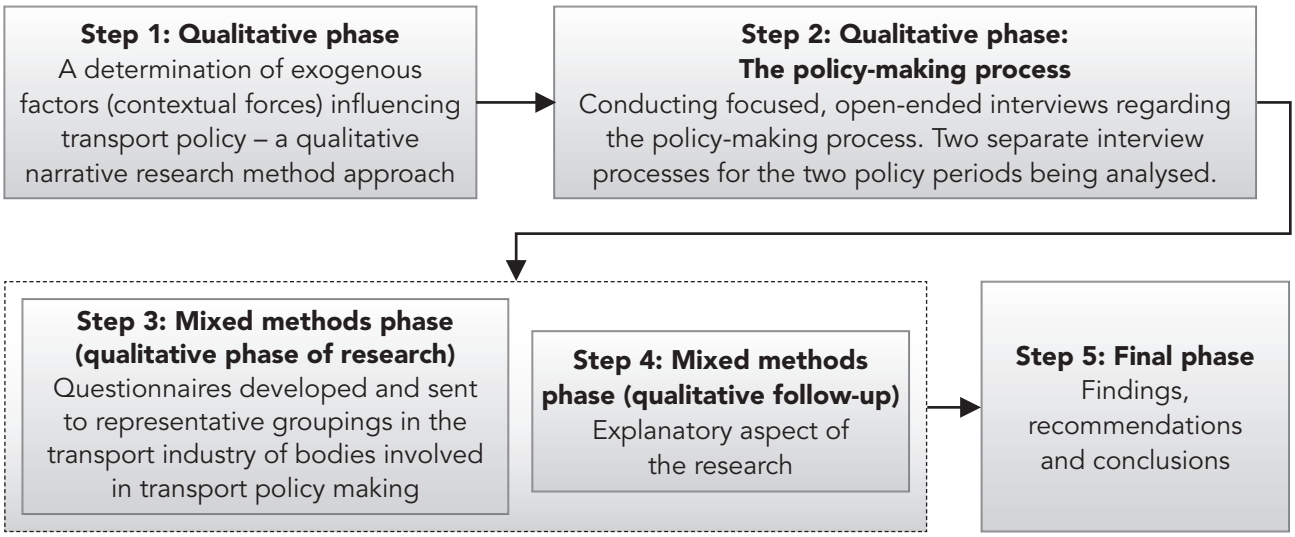

Figure 1: Steps in the research process

Data generation

While quantitative research relies on the representativeness of the data generated, qualitative research 'requires that the data collected must be rich in description' of events and phenomena (Patton, 1990:169). For this reason qualitative research will in general embrace purposive sampling methods (Schurink, 1998:253).

The generation of data for analysis for this research study has been carried out through three separate approaches for the three separate objectives of the research.

In the analysis of the contextual forces which have influenced transport policy in South Africa, which has embraced a narrative methodology, data generation has been through a literature search by the author **supplemented by** interviews with five persons purposively selected as having extensive experience in this facet of transport policy making during, and before, the two policy periods. Literature suggests that the sample size for this type of research may be from two people, as in narrative study, to four to ten in reporting cases (Cresswell & Plano Clark, 2007:112). The determination of the contextual forces in transport policy formulation in South Africa is regarded as tending more to a narrative study than a case study; hence the sample size has been set at five.

The comparison of the policy-making process in transport during the two policy periods being reviewed with generally accepted theoretical concepts is carried out in a qualitative case study approach using a purposively chosen sample and focused interviews as indicated by literature on this research procedure. The analytical technique embraced is an explanation-building descriptive strategy, which analyses the case study data by building an explanation about the case study in an attempt to arrive at significant propositions regarding, and insight into, the policy-making procedure employed during the two policy periods (Shaw, 1999:102-10). Literature suggests that for this type of study using focused interviews 'a small [sample] number is used, such as four to ten' (Cresswell & Plano Clark, 2007:112). For this study the analysis of the policy-making process has been carried out for each policy period separately with sample sizes of slightly more than ten persons for each. It should be noted however that a few persons overlap both periods because they have knowledge of, and experience in, the policy-making process for both.

In order to ensure that all viewpoints on the efficacy of the policy-making process are taken into consideration, the 'interviewees' were chosen using a 'maximal variation sampling' approach, in which persons are chosen who, as far as can be ascertained, hold different perspectives on the phenomenon. Persons selected for interviewing ranged from a previous Cabinet Minister and Directors General of Transport during the two separate policy periods (Directors General as the functional head of a department are ultimately responsible for the development and implementation of policy), to the chairman of the Parliamentary Portfolio

Committee for Transport (a multi-party committee of Parliament that has to debate and agree to policy proposals before they are submitted to Parliament), senior members of the bureaucracy intimately involved in the policy-making process, academia, researchers in transport and policy making, professionals versed in the policy-making field, representatives of user and transport labour groups, non-governmental transport policy forums, and commerce and transport specialists in the Development Bank of Southern Africa.

In the mixed-methods study for assessing whether the policy achieved its objectives through assessing its impact, the sample for the quantitative phase of the research procedure using the follow-up explanatory approach has, in line with literature on this research approach, been purposively selected to include organisations with a knowledge of, involved in, or affected by, the particular policy facet being analysed.

Also, since it is considered necessary that participants in the data-collection phase require some background knowledge of the impact assessment for the two separate facets of the study, namely primary roads and commuter bus transport, they have been chosen as being representative of the separate facets of society by having a role in, or being affected by the policy objectives. In this way the spheres covered are: political, bureaucratic, technocratic or academic, NGOs in the specific field of the policy being evaluated, user groups, labour, and commerce and industry.

The smaller sample for the qualitative follow-up explanatory aspect of the mixed-methods impact study has also been selected in a similar fashion, so as to be representative of the interests involved.

A more detailed discussion of the research methodology followed is included in Annexure A.

STUDY FINDINGS

Transport policy context – the exogenous factors

While this research examined the historic policy framework for only two sectors of the total South African transport system, and also only for a specific chronological period, it is instructive to view these sectors within the broader contextual and historic overview which has shaped the environment within which transport policymakers in South Africa as a whole have operated both before and during the period being reviewed.

Transport policy, formulated to address problems and issues which exist in the transport sector, is intimately influenced by its environmental influences. In order to examine whether there is justification for the particular policy being pursued at any time, it was felt necessary to examine the exogenous factors facing policy makers, i.e., the problems, issues and

challenges they have had to contend with at the particular time (South Africa, 1975:1). As pointed out by Meyer and Cloete (2005b:10) policy agenda setting, and hence policy making 'cannot be studied in isolation from political, economic, social, technological, cultural and global factors' impinging on the policy directions. The exogenous factors, or forces in society, acting on policy makers strongly influence policy making, and policy in general 'develops out of a given socio-political context' (Meyer & Cloete, 2005b:100).

Also of relevance, particularly in examining government's policy responses to the problems and issues facing the sectors of transport in South Africa chosen for this research, is that broad transport policy has undergone significant changes during the past few decades, perhaps more so than most countries in the world (Mitchell, 2003).

The research identified (and described) the most important exogenous factors which have moulded transport policy as being the following:

- political and ideological changes
- constitutional and institutional reform
- changing economic and regulatory philosophy and pressures
- spatial population distribution, mainly as a result of apartheid policies
- the interplay of social and economic development needs
- environmental conservation constraints
- changes in the division of responsibilities for transport between the state and the private sector
- resource and capacity constraints.

Of these it was suggested that the most influential in shaping transport policy in South Africa have been ideology, constitutional and institutional factors, spatial population distribution and resource and capacity constraints (Mitchell, 2009:332).

The transport policy-making process

In analysing the extent to which South African transport policy making during the two policy periods being reviewed conformed to theoretical concepts and knowledge in the policy-making discipline, it was felt necessary, during the interviews, to separate the policy process from policy content. The study findings are described below.

Based on the interviews conducted and the subsequent analysis of the interviews, it was suggested by the great majority of the interviewees that the policy-formulation process for the **first policy period** was bureaucratically driven and embraced appropriate intellectual resources in the policy discipline. It was also found that it involved comprehensive consultation with all involved role-players and also took into account exogenous factors to the process. The process embraced ideas from elite groups as well as international experience. There

was however an inadequate analysis of the interdependence of policy problems and proposals to address them, as well as their possible unintended consequences. Specific goals, to some extent political, were pursued in the policy-formulation process and the heterogeneity of South African society at the time was taken into account. It is thus inferred that while rational analytical processes were utilised to some extent in analysing issues, the identification of these policy issues was largely determined in a subjective and politically aware fashion, often as the result of crisis management in government.

For the **second policy period** the process suffered from the influence of at least two major constraints. The first one was the political imperative to formulate policy as soon as possible following the 1994 regime change, and the second was the cumbersome constitutional arrangements for the allocation of transport-related powers between the three levels of government. The first constraint led to the policy-formulation process being confined to a few persons in the bureaucracy together with limited outside involvement. While it did embrace extensive consultation with all significant role-player organisations in the transport and business sectors, their viewpoints were not influential in the policy-formulation process. All persons who commented on the setting of policy goals for the second period suggested that policy goals were set by the bureaucracy, sometimes acting in concert with politicians and interest groups. Also, as pointed out during interviews with certain participants in the research, the content of the policy was to a large extent moulded by the 1986 White Paper transport principles and there were no new transport-related philosophies in the 1996 White Paper.

The study concluded that political aspirations, or perhaps necessity, occasioned by the new government still being universally regarded as a liberation movement with redistributive commitments, held sway in the process, and was its prime driver. This subjectivity was recognised by the bureaucracy at the time and it was stated that the intent was to complement the 1996 White Paper on National Transport Policy with a study for a facts-driven, rationally derived transport policy strategy, namely the 'Moving South Africa' transport strategy. This study was undertaken, but, as pointed out during the interviews by a senior Department of Transport official at the time, was not put into effect because of factionalism in the ruling party at the time.

Also, for this **second policy period**, the policy options in the 1996 Green Paper, which formed the basis of the 1996 White Paper recommendations, were found not to be thoroughly analysed to determine the direct or unintended consequences thereof. As for the first policy period, it was suggested (by all 11 persons consulted) that for this second period, apart from a few significant role-players in the process, there was neither sufficient understanding of the nature of public policy in government nor intellectual capacity and expertise available at an acceptable level to drive the process effectively. A senior Department of Transport

official at the time commented 'we had no capacity to do the strategic thinking in house' and 'recourse had to be had to the private sector to do this' (Mitchell, 2009:247).

Overall the study found however that for a combination of both the first and second policy periods, the policy formulation process, if not conforming in all respects, did at least follow recognised knowledge and theoretical approaches to the policy discipline at the time, the period between the mid-1980s and mid-1990s, though with some deficiencies and scope for improvement in the process.

These deficiencies in the transport policy-making process for the two policy periods include:

- Early enough attention was not given to identifying transport problems and issues for the transport policy agenda and it has been the custom to wait for a crisis situation, or severe problems to arise before they are addressed.
- Insufficient attention was paid to a 'facts-based' analysis of all policy options, and the possible consequences of the various proposals have not been explored.
- There has been insufficient cognisance given to the broader transport society in the policy agenda-setting process, and particularly during the 1996 to 2006 policy period, to take cognisance of the heterogeneity of South African society.
- The funding implications of especially commuter bus transport policy were not adequately investigated before the policy was adopted. While this was a major issue in the early 1990s, the new policy contained in the 1996 White Paper did not adequately explore this matter with the consequence that the problem still existed up to the end of the second policy period.

It is however in the sphere of the implementation of public transport policy where problems occurred, for both policy periods. Even given that the academic discipline of policy implementation has undergone considerable development during the recent past, in the field of commuter bus transport the impact of the policy was regarded by the interviewees as a failure for both policy periods. This is however not the case in the primary roads sector, where it can be considered as being successful.

The results correlate with and substantiate the results of the impact analysis study where it was found that the roads policy had a positive impact on the issues being addressed, while for commuter bus transport, it had little or no effect.

Policy impact

Considered broadly across all policy objectives analysed, and for both policy periods, the results of the impact analysis survey for the primary roads and commuter bus transport policy suggested that, in the case of roads, the policy objectives have on the whole been adequately achieved, while for commuter bus transport they have not.

For both policy periods the scoring of most of the individual primary roads policy objectives reflected a rating of 'adequately' or better – the only exception being a rating of 'partially' for the road funding objective during the first policy period. It is however suggested that this rating is a consequence of the National Treasury's tight control of capital expenditure at the time rather than the inability of the road authority to achieve the objective. In fact the more important projects on the South African Roads Board's programme for national roads were indeed implemented through loan financing redeemed by road tolling during this policy period (Mitchell, 2009:324).

On the other hand, policy objectives for commuter bus transport were held by the survey respondents, in all cases except one and for both policy periods, to have not been adequately realised. The one exception to this trend relates to the objective of ensuring acceptable labour practices in the industry, where a rating between 'partially' and 'adequately' was obtained.

It was thus concluded that policy impact analysis results indicate that, for both policy periods, the primary roads policy objectives were met while those for commuter bus passenger transport policy were not. The net result was a primary roads network which by and large meets the mobility needs of the country, while for commuter bus transport a dysfunctional system, measured by the extent to which it has attained the stated policy objectives for public transport, still prevails.

DISCUSSION OF THE FINDINGS

Transport (and other) public policy making in South Africa has been made in a complex environment which is not found in many other countries in the world. These complexities include a very large gap in economic and social circumstances between the minority 'rich' and the majority 'poor' persons, a difficult spatial population distribution from a transport efficiency viewpoint, continual constitutional reform over four or more decades, two strong and dichotomous ideological viewpoints which have spanned the review period and major resource, and particularly capacity constraints. For these reasons at least, public policy makers need to be well versed in the policy-making process, and particularly in the implementation phase (for the reasons pointed out below). The authors suggest that the academic institutions have a large role to play in providing the necessary guidance in this respect.

Some of the more specific viewpoints expressed by the persons consulted in the analysis of the policy-making process were that the lack of success for bus transport was due to:

- poor leadership at the provincial levels of government
- lack of capacity and expertise at all levels of government
- institutional jealousies between levels of government

- a lack of an integrated approach to the provision of public transport within a complex environment
- the lack of adequate monitoring to inform necessary adjustments to the policy
- the lack of a funded mandate for policy implementation
- lack of effective oversight by central government over the functioning of the relevant institutional structures managing public transport
- a lack of continuity in respect of institutional memory
- the embarking on policy objectives without a full quantification and guarantee of meeting the costs (subsidies).

In respect of the positive impact of the roads policy on the issues facing this sector it is suggested by the authors that the success of the policy for roads was due to adequate leadership being exercised, with available capacity and expertise in the bureaucracy in the roads sector at the time, and without much conflict in the policy formulation and implementation process. In addition there was not the same need to develop an integrated approach involving other levels and spheres of government as there was in the commuter bus sector.

With regard to commuter transport, various reasons could be advanced for the apparent failure of commuter bus transport policy, for example, policy proposals that were too optimistic or unrealistic, much conflict between opposing viewpoints in the sector, institutional deficiencies in the policy-implementing sphere, inadequate understanding of, or attention given to, the implementation phase of public policy, or perhaps lack of leadership and capacity.

Also, it would be fair to acknowledge that there is an order of magnitude difference in the extent of the challenge to implement commuter bus transport policy (and public transport as a whole) in respect of the implementation of roads policy. The commuter bus transport policy is more complex, has more variables influencing implementation and has more human and political involvement/interference thus leading to conflict situations.

For the transport sector to flourish in South Africa it is essential that public sector officials involved in policy making and its implementation be made aware of the results of this research and that they take the results of the study into account in their endeavours in this respect.

STUDY RECOMMENDATIONS

The study made certain recommendations, summarised in brief as follows:

- The need exists for increased attention to be paid to the bolstering of policy-making capacity among the bureaucracy, and for the regular monitoring of transport policy in

South Africa. To this end a recommendation for the establishment of a transport policy unit at a South African university is made.

- The central government Department of Transport needs to be empowered with adequate expertise and experience so that it can play a more significant role than it currently does in all transport policy making in the country, but particularly in the implementation of the policy.
- In the light of the many socio-economic changes currently taking place in South Africa, the research recommended that a new transport policy study be embarked upon with the view of formulating new transport policy which has been rigorously derived. This study should, *inter alia*, examine which aspects of the two previous Transport Policy White Papers were eventually implemented, and the reason for the non-implementation of those which were not.
- Consideration should be given to institutional reform in transport in South Africa.

Areas of potential future research were suggested. These comprise:

- a review of the latest trends and knowledge in public policy analysis, formulation, implementation and monitoring, coupled with a study into the appropriate approach to transport policy making and implementation in a 'less developed state and a heterogeneous society' such as South Africa, in comparison with public policy making in more developed societies
- a detailed study into reasons for the inadequacies of the public policy process, in general, in South Africa – this inadequacy has been pointed out by many senior political and private sector persons, notably by the State President of South Africa (Zuma 2009)
- a study into appropriate indicators to measure transport policy impact in South Africa
- a selected review of all recent policy and strategy documents of transport authorities in South Africa to review their success or otherwise, and the reasons for their success or failure
- a detailed study into the social, financial and operational consequences for the transport sector in South Africa of the previous spatial dispersion (apartheid) policy in South Africa, and possible measures to address this issue
- a study into factors inhibiting the provision of efficient and effective public transport in South Africa
- a study into the consequences of the 'generous' powers in respect of transport given to all three levels of government in South Africa and whether or not a rationalisation of institutional authority in respect of transport would be desirable
- a review of the latest international trends in public transport policy and the success or otherwise of the implementation thereof.

CONCLUSION

Conclusions drawn from this research during the transport policy periods addressed in the study were as follows:

- Significant contextual forces in South African society, both during and preceding the policy periods selected for analysis in this research, have shaped or moulded transport policy making in the country, perhaps more so than in other countries. The most significant of the forces are the country's peculiar spatial population distribution (due to the social engineering associated with apartheid and separate development); the continual constitutional and institutional reform (with four new constitutions in 45 years); and the dichotomy between the needs for both social and economic development as a result of South Africa's sharing characteristics of both the developed and developing worlds.
- The analysis of transport policy making in South Africa during the two policy periods in comparison with theoretical concepts and knowledge in the policy-making discipline suggests that there were some deficiencies in the process and there is scope for improvements in the process as detailed in the body of the paper.
- An important finding in the analysis of the policy-making process was that there were significant deficiencies in the implementation of the policy for commuter bus transport and that, in the framing of the policy, insufficient attention was given to this facet of the policy-making process.
- The policy impact analysis for commuter bus transport revealed that the policy process had little, if any, impact on the issues facing this sector of transport at the time, while policy in respect of primary roads had a positive impact.
- The finding in relation to the analysis of the policy-making process correlates with and confirms the results of the impact analysis phase of the study.

REFERENCES

Newspaper reports

Zuma, J. 2009. Talk to academics at the University of Johannesburg on 10 March 2009. *Business Day*. March 11, 2009.

Books

Cresswell, J.W. & Plano Clark, V.L. 2007. *Designing and conducting mixed methods research*. Thousand Oaks. CA. Sage.

Meyer, I.H. & Cloete, F. 2005a. Policy dynamics: change, failure and success. (In Cloete, F. & Wissink, H., eds. 2005: *Improving public policy*, 3rd impression. Pretoria. van Schaik. pp.238-62).

— 2005b. Policy agenda setting. (In Cloete, F. & Wissink, H., eds. *Improving public policy*, 3rd impression. Pretoria. Van Schaik. pp.97-112).

O'Sullivan, P. 1980. *Transport policy, an interdisciplinary approach*. London. Billings and Sons.

Patton, M.Q. 1990. *Qualitative evaluation and research methods*, 2nd edition. Newbury Park CA. Sage.

Poggenpoel, M. 1998. Data analysis in qualitative research. (In De Vos, A.S., ed. Strydom, H., Fouche, E., Poggenpoel, M. & Schurink, E. and W., 1998. *Research at grass roots*. Pretoria. Van Schaik. pp.334-53).

Schurink, E.M. 1998. Deciding to use a qualitative research approach. (In De Vos, A.S., ed. Strydom, H., Fouche, E., Poggenpoel, M. & Schurink, E. and W. 1998. *Research at grass roots*. Pretoria. Van Schaik. pp 239-51).

Shaw, I. 1999. *Qualitative research*, 2nd edition. Sage. London.

Teddlie, C. & Yu, F. 2007. Mixed methods sampling – a typology with examples. (In Plano Clark, V.L. & Cresswell, J.W. eds. *The mixed methods reader*, 2008. Thousand Oaks CA. Sage.

Conference proceedings

Mitchell, M.F. 1994. The link between the technical and political processes in policy development and capacity enhancement for roads. Proc. 6th Conference on Asphalt Pavements for Southern Africa. Cape Town. October, 1994.

— 2003. History of transport in South Africa (post 1950). Presentation to Global Research Associates meeting, 16 October, 2003. Durban. CSIR.

Research studies

Mitchell, M.F. 2009. Study into a critical analysis of selected aspects of South African Transportation Policy. Johannesburg. University of Johannesburg.

Government publications

Department of Transport. 1986. White Paper on National Transport Policy. Pretoria. Ministry of Transport Affairs.

— 1996. White Paper on National Transport Policy. Pretoria. Government Printer.

— 1999. Moving South Africa, the action agenda. Pretoria. Department of Transport.

— 2005. National freight logistics strategy. Pretoria. Department of Transport.

South Africa (Republic) 1975. White Paper on the report of the commission of inquiry into the urban transport facilities of the Republic of South Africa. Pretoria. Government Printer.

ANNEXURE A: RESEARCH METHODOLOGY IN MORE DETAIL

This annexure should be read together with the research approach and data generation procedures as discussed in the article.

Figure A1 depicts the various steps followed in this research project. These steps are more fully described in the section which follows:

Sampling strategy

This section describes the sampling strategies used for each of the three facets of the research investigation.

Step 1: Exogenous factors influencing transport policy: a qualitative narrative research method

This part of the investigation obtained data through a literature survey, as well as interviews with five persons all of whom had extensive experience of the transport milieu in South Africa during the policy periods. These persons are listed in Table A1.

Table A1: Persons consulted in the qualitative narrative research analysis of the exogenous factors influencing transport policy formulation in South Africa
Source: Compiled for purposes of this study

Prof J. Bosman	Transportation consultant and Professor in Transportation Engineering at the University of Johannesburg
Mr W. Cameron	Transportation consultant and previously Head of the Public Transportation Division at the South African National Institute for Transport and Road Research
Dr G. Dehlen	Previously Head of the South African National Institute for Transport and Road Research and, *inter alia*, a researcher in transport policy
Dr V. Prins	Specialist consultant in Transportation who played a leading role in the 1986 National Transport Policy Study
Prof J. Walters	Professor of Transport Economics at the University of Johannesburg who was extensively involved in both the 1986 and 1996 Transport Policy White Papers

Step 2: Analysis of the policy-making process for transport policy

As mentioned in the body of this paper, and supported by literature, the persons selected for the focused, open-ended interviews relating to the policy-making process during the two policy periods have, as indicated by literature on the research procedure, been purposively chosen to represent as wide a spectrum as possible using a maximum variation sampling approach.

Separate groups were chosen for the two separate policy periods to reflect involvement in the process at the time, though there is a limited degree of overlapping in that some persons were involved during both periods. The persons selected are listed in Table A2.

Table A2: Purposively selected participants for the field survey in the qualitative analysis of the transport policy-making process in South Africa during the two policy periods addressed in this study
Source: Compiled for purposes of this study

Policy period 1: (1986–1996)	
Mr G. Bartlett	Previous Minister of Transport, during the first policy period
Mr R.G. Meyer	Previous Director-General of Transport, during the first policy period
Prof J. Bosman	Transportation Consultant and Professor in Transportation Engineering at the University of Johannesburg
Mr N.S. Cronje	CEO of a major South African bus company, and previously a researcher in Transport Economics at the National Institute for Transport and Road Research
Dr P. Freeman	Lead Evaluation Officer at the World Bank and previously Head of the Transportation Economics Division at the South African National Institution for Transportation and Road Research

Prof G. Maasdorp	Emeritus Professor in Transport Economics at the University of KwaZulu-Natal
Mr T. Markman	Transportation specialist, a leading player in the Free Market Foundation and author of the book *Transport Policy – a study of Road Passenger Transportation*
Dr V. Prins	Specialist consultant in Transportation who played a leading role in the 1986 National Transport Policy Study
Prof G.C. Prinsloo	Professor in Transport Economics at the University of Johannesburg
Dr M.P. Vermeulen	Transport Specialist consultant who previously played a leading role in the National Transport Policy Study *circa* 1985
Policy period 2: (1996–2006)	
Mr J. Cronin	Chairman of the Parliamentary Portfolio Committee for Transport, during the second policy period
Mr K. Gordhan	Previous Director-General of Transport, during the second policy period
Mr H. Harvey	Previous Deputy Director-General of Transport, during the second policy period
Mr N. Alli	CEO of the South African National Roads Agency since 1998 and previously Chief Director of National Roads at the South African Department of Transport
Ms J. Barrett	Transport policy analyst for the South African Transport and Allied Workers Union, during the second policy period
Mrs C. McCaul	Transportation researcher and author of the book, *No Easy Ride*, which deals with the public transport industry
Mr G. Negota	Lawyer specialising in transport matters and previously Chairman: National Transport Policy Forum
Dr A. Shaw	Deputy Director-General, Department of Public Enterprises and previously Transport Specialist at the Development Bank of Southern Africa
Both policy periods	
Mr W. Cameron	Transportation Consultant and previously Head: Public Transport Division at the National Institute of Transport and Road Research
Mr P. Copley	Transport Specialist at the Development Bank of Southern Africa and previously a senior officer in the Department of Transport
Dr G.C. Dehlen	Previously Head of the National Institute for Transport and Road Research and a researcher in, *inter alia*, transport policy
Prof J. Walters	Professor of Transport Economics at the University of Johannesburg who was extensively involved in the formulation of the 1986 and 1996 Transport Policy White Papers

Step 3: The quantitative part of the mixed-method research procedure for the transport policy impact analysis

Without a regular assessment of the impact of public policy it is not possible to determine whether the policy has been effective or not in meeting the policy objectives. In order to determine the impact of policy it is necessary to select criteria through which the policy impact will be determined (discussed in this annexure).

This phase of the study has been carried out using a questionnaire as part of the mixed-methods research procedure. The questionnaire results were interpreted by using the explanatory model embracing the follow-up explanatory approach. For the quantitative phase of this method the sample has been chosen to be as fully representative as possible within both the commuter bus transport sector and the primary road network sector.

Questionnaires were sent out to persons/bodies chosen to be as representative of the commuter bus and road network sectors respectively, as possible. Fourteen bodies in each sector were approached.

The data-gathering process entailed the mailing or emailing to council or board members, or other representative groupings of particular bodies involved in the transport policy facets being analysed, questionnaires to request them to rate the criteria used to measure the impact of the policy. Ratings were requested on a five-point scale of success, or otherwise in meeting the criteria, or policy objectives. The results have been analysed to arrive at combined scores for each of the relevant criteria.

The organisations polled were chosen to represent diverse facets of the bus transport and road sectors respectively. They are listed in Table A3.

Table A3: Organisations polled in respect of the impact analysis of transport policy for primary roads and commuter bus transport
Source: Compiled for purposes of this study

Primary road network
• The South African National Roads Agency • The Annual Transport Convention Organising Committee • The Road Traffic Management Corporation • The Free Market Foundation • The Road Freight Association • The Automobile Association of South Africa • The South African Road Federation • The Development Bank of Southern Africa • The Parliamentary Portfolio Committee for Transport • The South African Chamber of Industry • The Coach Operators Association of South Africa • The Chartered Institute of Logistics and Transport in Southern Africa • The National African Federation of Chambers of Commerce • The Transportation Division of the South African Institution of Civil Engineers
Commuter bus transport
• The Road Traffic Management Corporation • The Annual Transport Convention Organising Committee • The National African Federation of Chambers of Commerce • The Chartered Institute of Logistics and Transport in Southern Africa • The Free Market Foundation • The South African Chamber of Business • The Southern African Bus Operators Association • The Parliamentary Portfolio Committee for Transport • The Transport and General Workers Union • The Consumer Council • The Development Bank of Southern Africa • The South African Commuters Organisation • The Transportation Division of the South African Institution of Civil Engineers • The South African Local Government Association

Assessment criteria used to determine the policy impact analysis

For this research project it was decided that the policy assessment criteria would comprise the policy objectives for each policy period chosen, and for the particular aspect of transport policy being addressed, as set out in the two government Transport Policy White Papers published during each specific policy period. In addition, policy objectives relevant to the two areas of research were also identified in the 'Moving South Africa' transport strategy study of 1999, as well as legislation for both policy periods:

- The Transport Deregulation Act, No 80 of 1988
- The National Road Traffic Act, No 93 of 1996
- The South African Roads Board Act, No 74 of 1988

- The National Land Transport Transition Act, No 22 of 2000, and
- The National Roads Agency Limited and National Roads Act, No 7 of 1998.

These policy objectives, used as impact assessment criteria, are set out in Tables A4 and A5.

Table A4: Government Policy Objectives for the 1986–1996 policy period
Source: 1986 National Transport Policy White Paper

Policy period 1986–1996 (Public Transport)
• Provide economically effective bus transport services to assist in the regional development of the country • Devolve the management of bus services to the lowest possible level of government • Simplify regulations for the provision of bus services • Promote small business development and private initiative in the provision of bus services • Develop a tendered contract system and financial accountability in the provision bus services to promote competition in the provision of services • Promote safe and reliable bus services through a road passenger quality system
Policy period 1986–1996 (National Roads)
• Provide a road network to promote regional development • Create a National Roads Board to administer national (primary) roads • Further private involvement in road provision • Develop a sustainable funding base for primary roads, including user charging where appropriate • Promote safe and reliable road infrastructure

Table A5: Government policy objectives for the 1996–2006 policy period
Source: 1996 National Transport Policy White Paper

Policy period 1996–2006 (Public Transport)
• Support the goals of the Reconstruction and Development Plan (RDP) in addressing user needs for safe, reliable and affordable bus transport • Promote the use of public transport • Devolve management of bus services to the lowest competent level of government • Set up institutional structures for the efficient planning and regulating of bus transport services • Integrate passenger transport planning with land use development to promote corridor densification and effective land use urban structures • Ensure sustainable and dedicated funding for bus services • Develop and introduce tendered subsidised contracts for the provision of bus services to promote regulated competition • Foster human resource development and professionalism in bus transport management to assist disadvantaged operators • Ensure fair and acceptable labour practices • Promote environmentally sensitive and energy efficient bus transport services

Policy period 1996–2006 (National Roads)
• Create a national roads agency outside of the public service (to manage the national road system on commercial lines) • Develop a primary road network to assist in promoting the country's export competitiveness in the global market • Foster a sound and sustainable funding base for primary roads • Provide road infrastructure in an environmentally sensitive fashion • Advance human resource development in road provision • Support the goals of the Reconstruction and Development Plan (RDP) for economic and social development

For the roads sector analysis, 55 individual responses were received, while for the bus sector, the response was disappointing with only 28 individual responses received.

The **distribution of responses** was as follows:

Roads sector
Road planners: 24
Researchers and academics: 7
Commerce and industry: 11
Road transport sector: 6
Government institutions: 7
TOTAL: 55

Bus sector
Transport planners: 7
Researchers and academics: 5
Commerce and industry: 10
Road transport sector: 3
Government institutions: 3
TOTAL: 28

Taking into account the research approach adopted for determining the impact of the policy, namely a mixed-methods procedure using a follow-up explanatory approach, it is suggested that there was an adequate response to assess the impact in respect of both the roads and commuter bus facets of the study. In support of this suggestion reference is made to Teddlie and Yu (2007:207) in Plano Clark and Cresswell (2008:199-228) who suggest that for purposive sampling in a mixed-methods research procedure (as in this research) sample sizes are 'typically small – usually 30 or less'. They also state that for this situation selection of the samples 'uses expert judgment'. This is the procedure used in this research, where the authors have had extensive experience in transport policy making in South Africa and a wide exposure to the main role-players in this field in the country.

Step 4: Qualitative follow-up on Step 3 of the research project

For the qualitative follow-up explanatory aspect of the mixed-methods impact study, participants with extensive background and knowledge of primary roads or commuter bus transport were purposively chosen to assist in analysing the significance (or non-significance) of the results of the quantitative study, including how to deal with outliers and surprising results, as is suggested in literature (Cresswell & Plano Clark, 2007:72). The persons chosen are listed in Table A6.

Table A6: Persons consulted for qualitative follow-up explanatory mixed-methods analysis of impact assessment results for primary roads and commuter bus transport policy
Source: Compiled for the purposes of this study

Primary roads	
Mr P. Copley	Transport and Roads Specialist at the Development Bank of Southern Africa
Mr P. Myburgh	Experienced roads engineer and retired CEO of the South African Bitumen and Tar Association
Mr P. Nordengen	Senior researcher in roads at the Roads Division of the South African Council for Scientific and Industrial Research
Mr A. Taute	Widely experienced roads engineer and retired CEO of a large consulting engineering company
Dr J. Sampson	Road engineering consultant and Chairman of the South Road Traffic Management Corporation.
Commuter bus transport	
Mr E. Cornelius	Executive Officer of the South African Bus Operators Association
Mr P. Copley	Transportation Specialist at the Development Bank of Southern Africa
Prof G. Prinsloo	Professor in Transport Economics at the University of Johannesburg
Dr M. Vermeulen	Specialist consultant in public transportation
Prof J. Walters	Professor in Transport Economics at the University of Johannesburg