

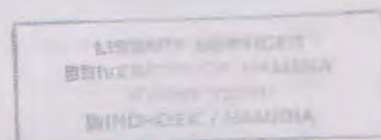
ROAD SECTOR REFORM IN NAMIBIA: INSTITUTIONAL DEVELOPMENT ISSUES

RESEARCH PAPER
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TABLE OF CONTENTS

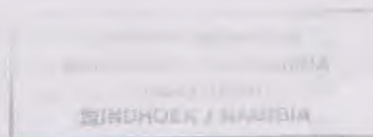
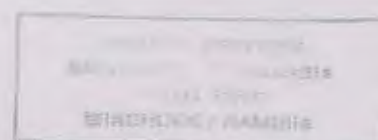


TABLE OF CONTENTS	I
EXECUTIVE SUMMARY	III
ACKNOWLEDGEMENT	V
LIST OF FIGURES	VI
LIST OF TABLES	VI
LIST OF ABBREVIATIONS	VII
CHAPTER ONE	1
1 INTRODUCTION TO THE STUDY	1
1.1 Role of transport in the community	2
1.1.1 Transport's economic role	2
1.1.2 Transport's social role	3
1.1.3 Transport's political role	3
1.1.4 Transport's strategic role	4
1.2 Problem Formulation	4
1.3 Review of selected literature	6
CHAPTER TWO	15
2 CONCEPTUAL FRAMEWORK, METHODS AND PROCEDURES	15
2.1 Conceptual Framework for Road Sector Reform	15
2.1.1 Public Choice Theory	16
2.1.2 Agency Theory	17
2.1.3 The Neo-institutionalism	18
2.1.4 New Public Managerialism	19
2.2 Preliminary Findings	20
2.3 Methods and Procedures	20
CHAPTER THREE	22
3 THE NEED FOR ROAD SECTOR REFORM: PAST DYSFUNCTIONS	22
3.1 Managerial Dysfunctions	22
3.1.1 Human Resource constraints	22
3.1.2 Inadequate Financial Arrangements	23
3.1.3 Lack of clear responsibilities	25
3.1.4 Weak Management Systems	26
3.1.5 Ineffecient Work Methods	27
3.2 Institutional Deficiencies	28
3.2.1 The output-outcome Distinction	28

3.2.2	The Owner-Purchaser Distinction	29
3.2.3	The Government-Agency Distinction	29
3.2.4	Policy Advice-Service Delivery Distinction	29
3.3	Road Network Administration	30
CHAPTER FOUR		34
4	OBJECTIVES OF THE ROAD SECTOR REFORM: INSTITUTIONAL DEVELOPMENT OPTIONS	34
4.1	Options	36
4.1.1	Retaining the Status Quo Ante	36
4.1.2	Management Restructuring	36
4.1.2.1	Corporatisation	38
4.1.2.2	Commercialisation	38
4.1.2.3	Performance contracts	39
4.1.2.4	Management contracts	39
4.1.3	Organisational restructuring	41
4.1.3.1	Devolution	41
4.1.4	Ownership restructuring	44
4.1.4.1	Divestment	45
4.1.4.2	Delegation	46
4.1.4.3	Displacement	46
4.1.5	Regulatory restructuring	47
4.1.6	Stakeholder Involvement	48
CHAPTER FIVE		51
5	KEY AREAS OF THE ROAD SECTOR REFORM	51
5.1	Policy Reform Process	51
5.2	The road sector policy reform targets	53
5.3	The institutional arrangements for managing road network and financing	55
5.3.1	Roads Authority (RA)	55
5.3.2	Road Fund Administration (RFA)	56
5.3.3	Roads Contractor Company (RCC)	58
5.4	Past legal and regulatory framework	58
CHAPTER SIX		60
6	CONCLUDING REFLECTIONS	60
BIBLIOGRAPHY		65
APPENDIX 1: MAP OF ROAD NETWORK AND DEVELOPMENT		71
APPENDIX 2: TABLES		72
APPENDIX 3: KEY INFORMANTS CONSULTED FOR PRIMARY DATA		79
APPENDIX 4: FOR FURTHER READING		81



EXECUTIVE SUMMARY

Worldwide, ministries of transport are being called upon to lead major transport reforms, and at the same time reform themselves to become more modern institutions and assume new and different functions and roles in the more dynamic reformed system. Designed and initiated in the early 20th century and given wide responsibility for financing and operating extensive public road networks, they became large centralized and hierarchical public bureaucracies, with cumbersome and detailed administrative rules and a permanent staff with secure civil service protections. The ministries were fragmented by many vertical programmes, which were often run as virtual fiefdoms, dependent on uncertain international donor funding.

As fiscal restraint was imposed on most governments, ministries of transport suffered severe reductions in budgets, which meant that salaries could not keep up with inflation. Highly qualified engineering and administrative staff often left public service for higher salaries in the private sector. These underfunded, large, bureaucratic, centralized ministries faced a series of challenges that implied significant organizational changes.

Firstly the public sector experienced a growing movement to “modernize the state”, encouraged by fiscal constraints and technical assistance from donors. This movement was oriented mainly toward staff reduction (cutback management) through voluntary incentive schemes. The second challenge involved the pressure to decentralize operations either through “deconcentration” to regional or district offices of the ministries or through “devolution” of road facilities to elected regional and local authorities. The third and most difficult challenge has come more recently with the wave of enthusiasm for road sector reform that was encouraged by the World Bank’s Road Maintenance Initiative. This initiative required ministries of transport to exercise leadership of sector reform and to develop their own institutional capacity to take on new roles to guide the implementation of the reform. The reform usually meant changing the financing mechanisms from direct subsidies to some form of road tariffs, introducing greater participation of private sector and commercial discipline in the provision and conservation of road networks.

Through commercialization of swing divisions of road transport management and financing, the process seeks to improve performance of infrastructural support systems, meaning construction, maintenance, rehabilitation and reconstruction.

This research paper examines main features of the previous road transport management and financing system in Namibia; major steps launched under the Namibian road sector reform, and issues accompanying sustainability of governance under private – public road management paradigms.

The study is accompanying the current process of change involving the reform of the road transport management and financing system, meaning that the options discussed in the research paper will be open-ended. It is envisaged to assess essential components of the reform in, perhaps, three to four years.

The research paper is elaborating the variety of roles the transport sector is playing in the community and economy.

The conceptual framework that influenced Namibia's road sector reform included: public choice approach; principal-agent theory; new institutionalism and new public managerialism. These concepts were considered in a best practice approach, implying concept engineering. The reform applied private sector management techniques and ex post paradigm, which emphasizes customer orientation, performance measured by results, teamwork, creating efficient value, and competition.

A diagnosis of relevant past dysfunctions that shaped policy choices in Namibia's road sector reform is given in chapter three. In chapter four the agenda for reforming the road sector is analyzed by means of contrasting options, which have relevance for the question of institutional development. The key areas addressed by the reform process, targets as well as a special set of institutions created by the reform have been highlighted. Finally, in chapter six concluding reflections are given together with normative concerns about road sector efficiency, and the need to rise to the challenge, presented in the research paper, of creating an attractive, integrated public transport system, which addresses the economic and social needs of the Namibian people.

ACKNOWLEDGEMENT

Contrary to stereotypes, authors don't simply go off to their own islands to write books. Without the help of many individuals, the development and production of this paper would not have been possible.

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Those mostly directly involved, and for whom I hold deep appreciation and respect, include Taimy Ipinge whose superb typing improved the flow and readability of the manuscript while maintaining technical accuracy, and Matthias Metz, who worked with me so creatively on the numerous editorial judgments involved in each step of the process and whose creative insights are woven into the entire paper. The responsibility for both conclusion and inevitable errors remains mine alone.

Finally, I owe a considerable debt of gratitude to my wife, Linnea, and children for their empathy and understanding of my need to spend so many evenings and weekends on my "author's island" rather than with them.

LIST OF FIGURES

Figure 1: Types of Goods _____	11
Figure 2: Basic Building Blocks of the road sector reform _____	35

LIST OF TABLES

Table 1: Ex ante versus Ex post governance _____	9
Table 2: National Road Network explaining the road classification, and road lengths related to estimated traffic volumes (ADT) in 1997 _____	73
Table 3: The estimated value of the national road network (1998) _____	74
Table 4: Key objectives from various policy documents _____	75
Table 5: Registered transporters in Namibia – (1997) _____	76
Table 6: Ends and Means of Road Sector Reform _____	77
Table 7: Strategies and outcomes _____	77
Table 8: Number of Staff and Salary Scales in SATCC Countries, 1991-92 _____	78
Table 9: Key Informants consulted for primary data _____	80

LIST OF ABBREVIATIONS

ADT	Average Daily Traffic
BLT	Building Lease Transfer
BOO	Build Operate Own
BOT	Build Operate Transfer
DCA	Directorate Civil Aviation
DOT	Department of Transport, falling under the Ministry of Works, Transport and Communication
DPTM	Directorate Planning and Transport Management
DTIMC	Directorate Transportation Infrastructure Maintenance and Construction
GDP	Gross Domestic Product
GRN	Government of the Republic of Namibia
KfW	Kreditanstalt für Wiederaufbau
MLP	Model Legislative Provisions
MWTC	Ministry of Works, Transport and Communication
NABTA	Namibian Bus and Taxi Association
NAPWU	Namibia Public Workers Union
NATIS	Namibian Traffic Information System
NDPI	First National Development Programme (1995-2000)
NPM	New Public Management
NTDP	National Transport Development Plan
NTMP	National Transportation Master Plan
RA	Roads Authority
RCC	Roads Contractor Company
RMI	Road Maintenance Initiative

SADC	Southern African Development Community
SSA	Sub-saharan Africa
SATCC	Southern Africa Transport Communications Commission
SIDA	Swedish International Development Agency
SIP's	Sector Investment Programmes
SSATP	Sub-Saharan Africa Transport Program
UN-ECLAC	United Nations Economic Commission for Latin America and the Caribbean
UK	United Kingdom

CHAPTER ONE

1 INTRODUCTION TO THE STUDY

The combined invention of the car, the truck and the modern road at the dawn of the 20th century formed one of the most important events in the history of humankind. In developed countries road transport now satisfies more than 90% of the needs in land transport and this success is growing every day. Countries in transition are taking the same path. As for developing countries, it is clear that the attraction of these means of transport is just as irresistible (GERONDEAU, 2000: 3).

Roads in good condition carrying average traffic flows require constant conservation. When orderly planning and execution of road conservation is undermined, e.g. through insufficient or uncertain budgetary allocations, road networks may deteriorate to the point that production and distribution costs of other economic activities are significantly increased. Allocations for road provision and conservation in many developing countries, including Namibia, come from governments' consolidated budgets and are made in an incremental fashion. Ministries of finance are annually under pressure to increase ministerial thresholds in all sectors. The transport industry as a whole competes with the government sector providing services to the running of the economy as well as the fulfillment of needs and demands expressed by society in order to obtain a share of the scarce resources. Similarly, various forms and modes of public transport as well as individual transport enterprises compete for the resources allocated to the public transport sector.

Given the competition for resources from governments' budgets, it is well-nigh impossible to allocate sufficient funds for road provision and conservation from the consolidated budget. ZIETLOW and BULL (1999) concluded that in most countries the general public budgeting and financing system couldn't secure an adequate and timely flow of funds. Even if total funds could have been adequate, if they are provided after roads are broken, the sector may never reach its full potential. This appears to be true in cases where the rules and regulations of the bureaucratic public administrative system did not allow for a

cost effective management of road provision and conservation, in spite of the good will of many public employees responsible for road provision and conservation.¹

Certain measures need to be taken into account to enhance efficiency in public resource allocation. These measures would have to consider questions such as:

In restructuring the bureaucratic organization of the transport sector, what could be the role of a road management that focuses on commercial provision and conservation of roads? What could a fee-for-service based governance look like? How could the transfer from a Government Institution to a private company organization be achieved?

The purpose of the study is to examine: **(1)** main features of the previous system of organizing and financing road provision and conservation in Namibia bearing in mind experiences and lessons learnt from reforms conducted in different countries of Latin America, the Caribbean and Sub-Saharan Africa, **(2)** steps taken in Namibia towards reforming her road sector, and **(3)** options and possible lessons learnt for the intention to sustain an improved performance of road management following private-public paradigms of governance.

1.1 Role of transport in the community

Community's needs embrace far more than merely material welfare. Accesses to means of transport, different geographical regions, and goods are of economic importance and have distinct social, strategic as well as political implications. Governments use transport to attain politico-economic and socio-cultural objectives.

1.1.1 Transport's economic role

Transport's economic role is attributable to at least two factors. It employs resources to create utility of time and place, and it constitutes a pivotal economic service to be utilized optimally.

The need for transport is a derived need, which means that transport serves an entire range of engagements, including the production of goods and services and their consumption that cannot be carried out without linear infrastructures such as transport.

¹ This statement does not deny the fact that for long periods general public budgeting allowed for a proactive transport management.

The capacity of transport to create and to improve access to the remotest areas and enhance the mobility of people by lowering the cost of bridging distance and compressing time has a major impact on a community's economy. Transport can be viewed as an integral part of the production and supply of a service.

1.1.2 *Transport's social role*

Transport also makes a major impact on the social structure of a community. Without the high degree of physical mobility provided by modern transport systems it would be impossible to establish large urban communities and facilitate the emergence of major cities that enjoy ready access to social services in, for instance, the educational, health and cultural spheres. In addition, improved transport integrates rural communities and enables them to share in social activities and services. Transport forges links between national and international communities, a situation conducive to the transfer of ideas and values, which in turn might promote uniformity of preferences, culture, education and general life style. A reduction in transport cost and time and the concomitant increase in personal mobility can in addition help to alleviate serious socio-economic problems. Cheaper transport can, for example, help to reduce unemployment by enabling unemployed persons to travel to areas where job opportunities exist. Transport can also significantly increase the mobility of children, the elderly and the handicapped by making it possible for these constituencies to participate in crucial and desirable activities, such as sport events, life long learning activities or rehabilitation. While transport is crucial for the effective functioning of urban areas, recent studies have underlined the significance of improved rural access being a prerequisite to poverty alleviation (WORLD BANK FINDINGS, AFRICA REGION NO. 114, 1998).

1.1.3 *Transport's political role*

Authorities at various levels, therefore, require effective access to the areas under their control, so as to manage them efficiently, provide the services for which they are responsible, such as health services in remote areas, ambulance and firefighting services in urban and rural areas. Roads, for instance, allow the circulation of ideas and are therefore an important factor in communication. In this regard transport plays an important role in the process of reproducing political power. One of a government's primary political aims may be to facilitate the integration of different communities by means of transport. This may be as a result of a motivation to gain political support.

1.1.4 *Transport's strategic role*

The following statement applies to the whole society/economy in order to deal effectively with national security. In addition to providing the basic infrastructure, transport management and infrastructure is playing a pivotal role in ensuring national security. National security does not necessarily imply military defense. It is to be remembered that national security requires road infrastructure in times of natural disasters or any other emergency that needs the protection of people. It is against this background that a country may find it necessary to mobilise its resources over a wide geographical area and to concentrate them at specific points.

The provision of a functioning transport infrastructure of appropriate standard at the right time, when needed, is a prerequisite for sustained economic growth and an impetus for an enhanced development in a country such as Namibia.

It seems to be mandatory to commercialize the transport sector including the road sector in order to achieve service performances as experienced in sectors such as portable water supply, telephone and power supply.

The transport's strategic position in the national economy and society requires a careful planning and development of a transport policy.

1.2 Problem Formulation

Roads dominate the transport sector in most developing countries, carrying 80 – 90% of passenger and freight traffic, providing the only form of access to most rural communities. African countries, including Namibia, expanded their road networks considerably during the *1960s and 1970s².

Namibia can boast a well-functioning transportation system. In terms of its large land mass (824 269 km²) and population (1,7 million, 1998 estimates), Namibia's road network is well-structured and relatively well-conserved, and provides easy access to the majority of urban areas. A significant number of rural settlements, especially, in the heavily populated areas of the north, where the majority of the population lives are not yet

² By the end of the 1980s there were nearly 2 million kilometres of roads in Sub-Saharan Africa. These are some of the region's largest assets, with a replacement value of nearly US\$ 150 billion. This amount represents only to the costs of replacing all existing roads at current market prices and does not include the cost of structures (WORLD BANK, 1991).

connected to the national road network at all.³

The total number of registered vehicles in 1990/1991 was reported to be 120 835, with 112 659 (93,2%) paying license fees. The 8,176 (6,8%) that were exempt from paying license fees belonged to the Government, local authorities and diplomatic service. Of the registered vehicles paying license fees, 54 408 (48,3%) comprised cars, motor cycles and caravans while 58 251 (51,7%) were commercial vehicles ranging from light delivery vehicles/minibuses to trucks with seven or more axles.

Studies in Namibia, with her comparatively low car ownership (71 vehicles per 1000 of the population), indicate that the traffic growth has been about 6% annually during the period 1985 - 1995 (NATIONAL TRANSPORTATION MASTER PLAN, VOL. 2, 1998). This study further indicates an annual growth in traffic of 6-8% until 2012, with the higher growth rate probably being more significant for heavy vehicles.

According to the White Paper on Transport Policy (1995), there are an estimated 200 road haulage operators in the country with road carrier permits to operate for hire and reward. The total number of heavy vehicles, with a gross vehicle mass in excess of 3,5 tonnes, used by these operators is about 1 700, with the load capacity of approximately 31 000 tonnes.

Previous studies by DOT show that as many as 30% of all heavy vehicles are overloaded. This overloading has adverse effect on the road network in terms of the ever increasing road maintenance.

Including Namibia, most roads in Africa are poorly maintained displaying serious defects such as potholes. To prevent this devastating situation the Namibian Government has implemented institutional restructuring and territorial coverage of both urban and rural road sector development.

³ Namibia has an extensive road infrastructure network which is mainly built along a north - south axis joining the Angolan border to the South African border. In the east - west direction, the main branches of the infrastructure network stretch from the capital city Windhoek to the coast at Walvis Bay, and from Windhoek to the Botswana border, and from Grootfontein through to Katima Mulilo in the far east. From Windhoek the transport infrastructure stretches via Keetmanshoop to Lüderitz in the south of the country.

The existing road infrastructure (Appendix 2, Table 2) being rendered ineffective on account of total neglect is needed to gradually open up access to all areas of national territories. The importance of correctly conserving such roads, with an estimated value of N\$ 8,6 billion (Appendix 2, Table 3), should be emphasized to avoid having to rehabilitate them at great cost a few years after they have been built. Such rehabilitation projects are already underway or planned for in Namibia, and include the Road Authority Plan executing activities such as:

- The rehabilitation of the axes Windhoek–Rehoboth, Otjiwarongo–Otavi, Oshakati–Oshivelo and East Mururani–Rundu

(Appendix 1)

What are the causes of this unsatisfactory assessment? The answer to this question is not a simple one, and certainly this *research paper* cannot be presumed to offer all the solutions. Some of the causes can be identified and their elimination would require gradual public policy initiatives in line with economic development.⁴

SCHLISSLER identified the root causes of the problem as lack of adequate funding and lack of public accountability. In Latin America and the Caribbean, allocation of additional resources alone could not solve the problem of road deterioration (SCHLISSLER, 1991).⁵

Against this international background, managerial pragmatism and political conviction have both played their part in motivating the institutional reform of the road sector. The reform aimed at the improvement of the organization, staffing, and the performance of the institutions responsible for roads.⁶

The question that arises: which areas for reform have been defined and which decisions have been taken in order to ensure the improvement of the Namibian road sector?

1.3 Review of selected literature

The history of transport policy development is permeated by the long continued tension between policy arguments based on economic allocative efficiency and politico-social

4 For further reading refer to Appendix 4, Box 1 (Problems in conserving road networks).

5 A first step in this direction was to transform the provision of roads into independent and self-contained agencies under state ownership.

6 For further reading refer to Appendix 4, Box 2 and 3 (Mismanagement of roads and National Transport Development Plan of Namibia).

responsibility implying public interest. This debate, representing the two poles of a continuum is deeply rooted in liberal democracy: the role of the free market versus the public interest vested in the state (BUTTON AND GILLINGWATER 1986: 11–40). According to these authors this tension is still evident in many countries' transport policies, and each country's policy is based on the philosophy prevailing in that country, namely greater efficiency via the market mechanism (the "Anglo-Saxon" or commercial approach) juxtaposed to the furthering of the protection of the public interest by ensuring the regulation of transport activities for social ends (the "European-Continental" or social approach). Public administration is challenged by the management paradigm derived from the discipline of business administration. Its management approach is said to hold the promise of future public sector reform, replacing the administrative approach that the public sector used to apply.

The commercial approach emphasizes the role of the transport market in maximising economic efficiency. Transport is regarded as a service, and the function of any transport policy is to satisfy the market demand for best transport at the lowest possible cost. Owing to the possible presence of market defects, minimal state intervention in the market's functioning may be necessary.

The social approach, by contrast, views transport also as a right and an instrument in a broader social framework. It concentrates on transport's potential role in the attainment of public policy objectives. Preference is given to objectives concerned with income and welfare distribution, regional and land use policy, promotion of small and medium enterprises, protection of rail transport, promotion of traffic safety, fiscal relief for the national budget, protection of job opportunities, and sectoral combating of inflation. What the public can expect from transport policy in this regard is the provision of the best adequate transport at the lowest possible cost to the community. The attainment of the broader policy objectives nevertheless enjoys precedence, and this could result in economic efficiency being sacrificed in the process.⁷

The above argument stems from the general debate in public administration across all disciplines, which asks whether or not, and how far, new public management will or should replace the 'traditional model', which had served the public through a set of

⁷ Pure, economics-led policies can lead to many effects that are not measured in the market - like inter-regional tensions and conflicts - but which will feed back later and hurt the markets, economic growth, and the whole society. Namibia's investment priority to its north, presently, is an illustration of probably NOT following the commercial approach but following the commitment

hierarchical structures responsive to politicians and their constituencies, some writers believe that the upheaval of the current public sector is both likely and necessary. It is argued that unrestrained public sector expansion results in public policy failure due to the lack of coordination, communication problems, and reliable means–ends technologies in addition to lack of appropriate public funds (ROSE, 1980, 1984). Some researchers advanced this debate of shrinking the public sector in the following ways: OSTROM and OSTROM (1977), BRIDGE (1977), and SAVAS (1982) when outlining options of delivering services, emphasize privatization and public – private joint ventures by mixing market principles with bureaucracy. WILDAVSKY (1980) addresses decision-making techniques that would contain governmental growth. DOWNS (1960) in his contribution argued that the size of the government budget tends to be too small, while BUCHANAN (1977) posited that the public sector is too large and as such the budgetary expansion as advocated by DOWNS, is beyond control.

Again the use of public administration was inspired by a set of normative principles promoted by different scholars such as MILL (1861), WILSON (1887), and WEBER (1922). The emerging school of “scientific management” propounded by TAYLOR and FAYOL also influenced the direction of public administration in the early 20th century.

These inspirations contributed to what came to be known as traditional tools of government, i.e. ex ante governance framework (Table 1). The ex ante model, with its basis in planning theory could not solve the allocative problems involved in large–scale public provision of divisible goods and services (MCKEVITT AND LAWTON, 1994). It is claimed that management techniques should replace the ‘traditional’ public administration principles according to which the public sector has been structured (LANE, 1995). Thus, the system involving the institutional structure, the motivation of public employees and the status of the public interest, was seen as contributing to state failure. Features other than those posited by classical public administration models have been emphasized in ex-post governance models (Table 1).

An alternative paradigm for public sector reform, called “new public management” (NPM), was in full bloom by the early 1990’s, largely driven by neo-liberals, such as NOZICK (1974). In normative terms, they argue that state intervention in the economy imposes constraints on the inalienable rights and liberties of individuals, interferes with freedom of

to national security and development of previously marginalized regions.

choice, distorts the free play of markets and subsequently harms economic development (GREEN, 1986: 82-90; OLSEN, 1982: CH.6). In functional terms, according to LEFTWICH (1993), the neo-liberal political theory asserts that democratic politics and a slim, efficient and accountable public bureaucracy are not simply desirable but also necessary for a thriving free market economy, and, vice versa (FRIEDMAN AND FRIEDMAN, 1980: 21).

Table 1: Ex ante versus Ex post governance

<i>Ex Ante Model</i>	<i>Ex Post Model</i>
? Planning (centralization)	? Evaluation by results
? Control	? Discretion
? Minute regulation	? Framework legislation
? Line – item budgets	? Block (state) grants
? Means focus	? Management–by–objectives
? Steering emphasis	? Measurement of outputs and outcomes (Performance measured by results)
? Collective incentives	? Individual incentives (internal competition)
? Taxation	? User fees
? Authority	? Exchange (bidding and contracting)

Differences between the “traditional” public administration and public management models (adapted from LANE, 1993).

Hence neo-liberal developmentalists often argue that an obese state apparatus with a large stake in economic life is both inefficient from an administrative point of view and also incompatible with an independent and vibrant civil society, which is held to be the basis of effective democracy. Neo – liberal developmentalists have henceforth argued that excessive concentration of both economic and political power in the hands of the state (LAL, 1983: 103 – 109) has resulted in poor development records and adjustment failures. This concentration is an antithesis, it is argued, to political liberalization and bureaucratic contraction. These theories spurred western governments and international institutions to promote good governance and democracy as a condition of development assistance.

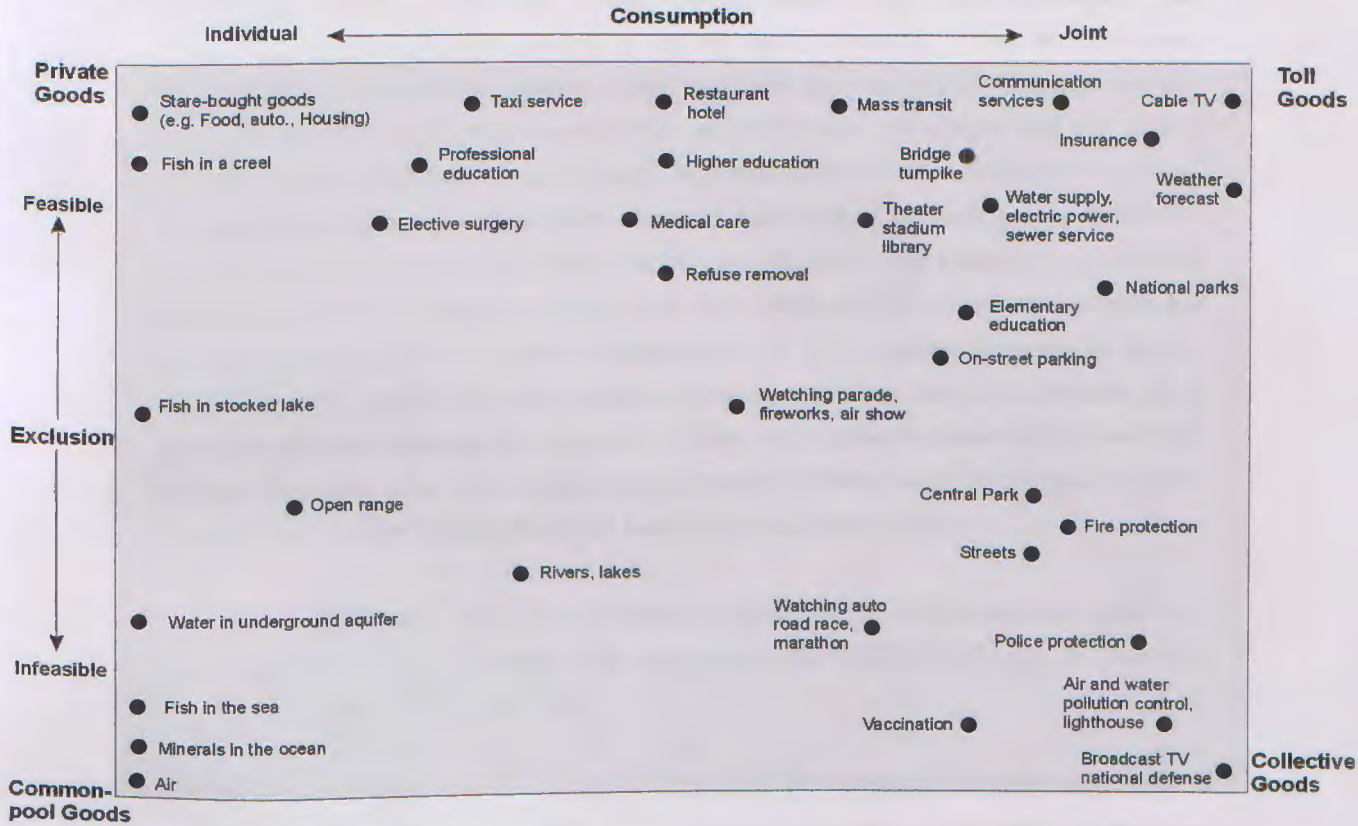
Despite current official theories of good governance that eulogize the minimal state, LEFTWICH (1993: 369) argues that “effective public capacity for promoting development is not a function of good governance but of the kind of politics and state that can alone

generate, sustain and protect it". He goes further to assert that empirical evidence shows that most successful records of economic development in the Third World over the last thirty years came about as a result of the existence of effective (democratic or not) developmental states. It would then appear that development is essentially political, implying equity in the distribution of wealth.

The question whether the public sector or the private sector should deliver particular services is resolved differently in different countries. The case for intervention has to be exceptional, resting on the argument that there are situations where the market will fail to perform desirably (BJORKMAN, 2000). Seemingly this is a matter of the nature of goods and services, as economists such as SAVAS (1982) eloquently explain. In his argument for sensible limits to government, access to goods and services are said to possess two properties: exclusion and joint use. These properties determine whether or not the good will be produced at all, and the conditions needed to assure that it will be supplied. Four types of goods and services can be classified, namely private goods, toll goods, common-pool goods and collective/public goods. The classification is done on the basis of two properties, namely: exclusion and jointness of consumption. The nature of the good or service determines the willingness of producers to supply it and consumers to pay for it, and, according to SAVAS, affects whether or not collective intervention is needed to procure the good in satisfactory quantity and quality.

Governments ideally representing collective political decisions have been supplying so-called toll goods, such as recreation services free of charge, or subsidizing them, e.g. transport services (roads). If there is little or no charge for the use of toll goods, then in effect such a good is turned into a collective good. This only occurs by political decision. In such cases public funds must be made available to supply enough of these goods. What has happened in reality is that many subsidized services such as roads have even been redefined to become common-pool goods subjected to rampant deterioration, thoughtless usage, and overuse and potholes.

Figure 1: Types of Goods



(Sources: adapted from SAVAS 1982)

SAVAS postulates a general rule in his argument: private goods and impure toll goods subsidized to a significant degree or provided without a user charge (i.e. goods whose exclusion property is abandoned) will be transformed into common-pool goods with their attendant problems.⁸

Empirical evidence in the United States of America indicates that providing goods and services, intrinsically collective in nature, by the public sector is no longer public policy. The provision of non-collective goods and services is the main government agenda (SAVAS 1992).⁹

⁸ Local communities have ways of managing common pool goods. Nations are too large, far-flung, diverse and (often) impersonal to operate like local communities.

⁹ For further reading refer to Appendix 4, Box 4 (Nature of goods).

Similar views are expressed in the World Development Report (1994) infrastructure for development section. According to this report, market forces and competition can improve the production and delivery of infrastructure services. This is, of course, contrasting the conventional wisdom about transport that holds that its resources are better allocated by administrative action than by the market. To what extent this view is borne out by facts has been a controversy as stated earlier. HIBBS (1982) in the United Kingdom (UK) sets out to challenge the "conventional wisdom" which has been allowed to develop partly through neglect by the economics profession, that transport is somewhat 'special' and that the allocation of resources and satisfaction of consumer wants in the industry cannot be left to market mechanisms. In other words, in terms of SAVAS' classification of goods discussed earlier, transport services should be treated as a collective good as apposed to a toll good. HIBBS, as a specialist academic economist, devoted his professional life to subjecting to rigorous market analysis a transport industry that has fallen into the hands of political and bureaucratic executives.

ROTH 1996 illustrates the provision of a road through economic markets, in Bangladesh in the 1960's, reminding the reader that entrepreneurial initiative can provide transport facilities under difficult circumstances.¹⁰

Further, HIBBS argues that, fundamental to allowing the market to function effectively is the introduction of marginal pricing for the use of the road infrastructure, particularly heavily congested urban routes (HIBBS, 1982:9). His reviews are now widely considered as authoritative analyses of the ills of transport, especially when it comes to external privatization or the hiving off of public sector activities to the private sector (SAVAS, 1989; HEALD, 1984; LANE, 1993). HIBBS perhaps recognized another public policy, namely internal privatization or the employment of market - type decision mechanisms within the public sector.

FOSTER (1975:5) in the UK found evidence to suggest that the 'traditional' transport problem never seems to be solved completely.

¹⁰ While the government of East Pakistan was making painfully slow progress in road development (despite massive assistance from USAID and the World Bank), a Dhaka bus operator, Momin Motors, financed and built two gravel roads for its own buses. The routes were selected by Momin Motors, and were reimbursed out of the fares paid by the passengers. The construction of these roads, which have since been paved and absorbed into the road network of Bangladesh, shows that private initiatives can play a useful role in road provision and management even under difficult circumstances. This emphasizes also what LANE (1993) states that public policy would be responsible for the allocation of special sets of goods (i.e. collective/public goods), such as defense and legal order as these are characterized by the combination of jointness and non - excludability. The market would take care of private and toll goods, road transport services and common-pool goods such as marine resources (e.g. fish, minerals).

Other authors such as BHAGAVAN et al (1999) repeatedly suggest that centralized government control of utilities has restricted the ability of management to endorse good business practices including the application of tariff setting. Thus, present institutional structures, policies and objectives may have served to orchestrate factors responsible for under-performance of the road sector, in particular lack of autonomy, inadequate funding, professional skill deficiencies, party politics at management levels and the negative characteristics of monopoly status.

An outcry came in 1988 when the World Bank Report on "Road Deterioration in Developing Countries" highlighted the extent of the road deterioration crisis and its implications for developing countries (METSCHIES, G AND RAUSCH, E., 1996). The World Bank report stressed the importance of policy reforms in the field of road planning maintenance, institutional development and financing. The prevailing budget financing systems and bureaucratic institutional systems of maintaining roads have been clearly identified to be at the root of the problem.

The Road Maintenance Initiative (RMI) of the World Bank which resulted from this awareness report and which forms part of the Sub-Saharan Africa Transport Program (SSATP) is based on two fundamental postulates, namely:

That the core problem in the road maintenance sub sector is not rooted in technical matters, but in political and institutional area; and two for any policy change to be effective, it must be based on a strong appreciation of the importance of road maintenance and its financing.

The publication of the book "Roads: A New Approach for Road Network Management and Conservation", prepared by SCHLISSLER and BULL (1993) for the Transport Unit of UN-ECLAC, provided an important milestone in the evolution towards a long term resolution of the problem of road conservation in developing countries world wide.

One of the main reasons for poor performance in road transport, identified by SCHLISSLER and BULL has been inadequate institutional incentives for improving infrastructure and infrastructure services. To promote responsive service delivery, incentives need to be changed through commercial management competition and user involvement. Establishing a new culture in developing Africa's transport infrastructure will

therefore be critical. This involves a learning process that leads to a paradigm shift in governments' understanding of their role in transport provision and conservation (WORLD BANK, 1998: FINDINGS AFRICA REGION NO. 114).

Regardless of whether a country's transport policy is dominated by the commercial or the social motive, public transport policy can never escape the necessity of simultaneously pursuing social and economic objectives and constantly weighing them against each other.

It is thus clear that transport policy is no random combination of measures, but a meaningful and well-planned effort aimed at the achievement of particular objectives, which have been formulated in response to contemporary demands. Many Governments are beginning to consider that transport can no longer be run as a public service with minimum or no cost to users and that the road sector requires a commercial approach. As a result, various reforms are being introduced. Road operations can be demand responsive rather than supply-led, economically efficient and financially viable for a wide range of freight and passenger needs. Consequently, failure of the road network would have major economic and social consequences for any country.

ADAMOLEKUN and KIRAGU (1999) point out that major recent public administration reforms in Sub-Saharan Africa countries are inspired by similar concerns as in developed, developing and transitional countries across five continents.

These reforms derive their theoretical underpinnings from concepts, models and approaches such as public choice theory, new institutionalism, management state comprising a number of models like internal markets to increase competition, and quality charters/programme evaluation/surveys to improve service delivery. It is from this comparative evidence and experience that Namibia has drawn lessons and useful insights as she treads the path of reform of her road sector.

CHAPTER TWO

2 CONCEPTUAL FRAMEWORK, METHODS AND PROCEDURES

The Namibian roading system is no longer the same as in the beginning of the nineties. The policy process, the institutions and the role of the core executives have changed. From the beginning of the nineties, the system was confronted with new economic ideas and concepts that influenced its characteristics. This section presents the main conceptual paradigms and salient features, which appear to have influenced the commercialization of road service delivery in Namibia.

2.1 Conceptual Framework for Road Sector Reform

The promotion of policy change is the principal challenge of politics. Only when ministers are determined to pursue new and perhaps radical policies - challenging the arguments of reality and continuity in the process - will the politicians exercise real power and be effectively on top (SIR PATRICK NAIRNE, quoted in ROSE, 1989: 95).

Public sector reforms, such as the Namibia road sector reform, are radical policy changes that have challenged "the arguments of reality and continuity". The road system was confronted with new economic ideas that were implemented, and changed the characteristics of the political and administrative system of managing and financing road provision and conservation in the country.

The theoretical concepts that influenced Namibia's road sector reforms and formed the intellectual drive for policy initiators included public choice theory, agency theory (principal-agent theory), neo-institutionalism and the new public managerialism. To enhance the performance of the Namibian road sector and its responsiveness to the strategic policy direction of the government, these concepts were considered and in a best practice approach, implying concept engineering, are reflected in the road sector reform in Namibia.

2.1.1 *Public Choice Theory*

Closely associated with the work of BUCHANAN and TULLOCK (1962), TULLOCK (1965), OLSEN (1965), and NISKANEN (1971), this theory seeks to explain how voters, politicians, bureaucrats and lobbyists behave in different institutional settings with different incentive rules. It is based on the idea that human behaviour is dominated by self-interest (homo economicus model). The concept of self-interest as it is used in this theory includes a variety of motivational elements: wishes, needs, preferences and demands (LANE 1993:216). It covers both narrow egoistic and materialistic interests (methodological individualism), and broad collective interests of groups and organisations. The theory tends to over-emphasize the supply side in public policy-making. Public policy-making often involves budgeting, mobilizing resources and transforming these into an output of goods, services and money. Public budgets have a supply side as well as a demand side. According to the public choice theory, the interaction between supply and demand in public budget-making is basically asymmetric in favour of the supply side. According to this theory (LANE, 1993), the budget only recognizes the costs when goods and services are produced in the public sector, as there exists no procedure by which demand can be effectively identified. This means that producers may always claim that enough is not enough and more resources will have a greater impact in terms of effectiveness, with the result that requests always chase appropriations whatever the level of expenditures. Thus, government officials attempt to, for instance, enlarge their ministry's budgets without regard to the overall government budget the reason being the strong position of producer groups at the expense of consumer interests. The theory further rejects the notion of an objective public interest (all social entities are fundamentally sets of individual sectors). Similarly, both public and private groups undertake rent-seeking activities (i.e. behave as if they maximize their own interests) to the disadvantage of the broader society, and politicians may pursue their own objectives at the expense of many of their constituents. As a result powerful interest groups may capture a disproportionate share of national income, and politicians may misuse their power. Democracy may be undermined as a result. It is, therefore, argued that choice has same service for the same price.

To counteract the tendency towards budget-maximising behaviour (NISKANEN, 1971), and rent-seeking (monopoly behaviour), new institutional responses have been found, such as contracting, bidding, deregulation and internal markets. These new institutional mechanisms tend to be conducive to symmetry in information (LANE, 1993:260), however, they are not strategy-proof against opportunistic behaviour or self-interest seeking with

guile.

Basic to the public choice theory, however, is the quid pro quo assumption, which means that citizens provide rulers or state with resources and power for which they expect a return of goods and services as well as laws regulating society that match what they are giving up. The Namibian road sector performance may have been caught up in this fundamental confusion between the supply side and demand side oriented public policy. Although this theory has had adherents in recent public debate, there have been few empirical studies to confirm or deny its hypotheses (MOORE, 1992, GRINDLE AND HILLEBRAND, 1995).

2.1.2 *Agency Theory*

At the core of this theory is the idea that interchange between parties can be characterised as a series of contracts where one party, the principal, enters into agreements with another party, the agent, who agrees to perform tasks on behalf of the principal in return for compensation. (MOE, 1984; 1990; PRATT AND ZECKHAUSER, 1985; BENDOR, 1988). According to MOE (1984:765) politics can be seen as a series of principal-agent relationships from citizen to politician to senior bureaucrat to subordinate bureaucrat to service providers.

Agency theory assumes rational, utility-maximising behaviour by individuals. Hence conflicts arise between principals and agents as their self-interests differ. To employ a principal-agent framework for the analysis of government action involves a clear rejection of the notion of the public interest as the motivational basis in the public sector. The only interests that exist within a principal-agent framework of public policy-making and public regulation are those that belong to either the principal or the agent. According to LANE (1993:125) the interests of principals and agents would include selfish, altruist, personal or social interests, since there is no scope for the public interest as the driving force of the public sector. Enactment of policies means that government becomes the principal and the bureaux/agencies become agents. Thus, in execution of policies and regulations government faces principal agent problems, such as asymmetric information, moral hazard about what actions to be engaged in given election promises, adverse selection among politicians, the difficulty of observing and monitoring agents' behaviour, and imperfect mapping of agents' outputs and the outcomes desired by the principal. In this connection an even larger ground for conflict exists.

The agency theory is concerned with the best way to construct and monitor contracts so that these kinds of conflicts are minimised. The theory is useful in analyzing the selection of agents, designing incentives and pay systems and choosing between in-house or outside contractors.

2.1.3 *The Neo-institutionalism*

Broadly conceived, institutions are the humanly created constraints on the interaction between individuals (NORTH, 1990 b). They are the rules and norms resulting in formal or informal rights and obligations which facilitate exchange by allowing people to form stable and fairly reliable expectations about the actions of others.

The new institutionalism argues that public institutions are not neutral in relation to the policies that they host. The debate about public sector reform in the welfare state countries is driven by awareness about the inefficiency of the 'traditional' institution in the public sector (LANE, 1993:257). Therefore, there is an intense search for new institutions that are more conducive to efficiency, all assembled under the label 'commercialisation'. Efficiency in the public sector boils down to finding the institutional set-up, which implements the optimal solutions. However, both the uses of internal markets for allocative purposes and massive deregulation may result in staggering transaction costs. Neo-institutionalism implies a theory whereby the role of the state in defining contractual arrangements is dependent on existing technologies and natural endowments. The concept of transaction costs is basic in the literature on neo-institutionalism and economic organisation theory (HODGSON, 1988; BROMLEY, 1989; HEAP, 1989; EGGERTSON, 1990). More specifically, transaction costs are conceived as all involved in establishing, monitoring and enforcing a contract. The literature on transaction costs further indicates that some transactions are better suited to market-type arrangements, while others are better suited to hierarchical or rule-driven organisations. For example, contracting out is likely to be desirable where the supply of a good is contestable, quality and quantity can be easily measured and specified, and suppliers are numerous. In-house provision is likely to be more efficient when the opposite conditions exist, i.e. when there is a high risk of self-interest, conflicts of interest, substantial uncertainty, and recurrent, complex transactions (WILLIAMSON, 1985). Thus direct provision may be preferable when maintaining quality is critical and opportunism poses a serious threat.

2.1.4 *New Public Managerialism*

This approach (AUCION, 1990; CAIDEN, 1988) centres on the presumption that a distinct activity called 'management' can be applied to public and private businesses alike. This activity includes elements such as a move away from input controls, rules and procedures toward output measurement and performance targets (accountability framework); the devolution of management control with improved monitoring and reporting mechanisms; a preference for private ownership, contestable provision, and contracting out of publicly funded services; the adoption of private sector management practices in the public sector, such as short-term labour contracts, performance-linked remuneration schemes, the development of a mission statement, greater concern with corporate image, and the development of a corporate strategy and action plan; an emphasis on efficiency i.e. "value for money" (HOOD AND JACKSON, 1991). In Namibia planners believed that the problem was not with the bureaucracy in the road sector as such, but more with the incentives themselves. Although the Department of Transport in Namibia had well-qualified and capable managers and staff who were responding in a rational way to the set of incentives they faced in the bureau, the types of incentive structure for performance were not seen to be adequate. This resulted in high labour turnover. The reforms were, therefore, intended to replicate, as closely as possible, the incentive structures for performance that normally might be found in a well-functioning private-sector concern, while taking into account the distinctive character of public services. The reform approach had five characteristics, namely establishing clear lines of accountability between government ministers and the new institutions created; defining performance in an unambiguous and measurable way; delegating authority to the boards of director and chief executive officers; establishing incentives that reward or punish results relative to the agreed outcomes; reporting and monitoring.

While this approach also has a wide public following and is being introduced in many government programmes, it has little empirical support for its claims for greater efficiency and effectiveness (BOSSERTS, 1996).

Reform through contracting and performance measurement will surely not solve all government's problems. But the reform clearly mirrors the pressures that led to their creation, and they introduce new, and largely unexplored, political and management features into policymaking and implementation.

2.2 Preliminary Findings

As should be clear from the discussion above, the empirical and positive theoretical work needed to evaluate the approaches presented above has lagged far behind the claims of the normative approaches. A recent comprehensive review of the state of the art in public administration demonstrates how little has been actually done (KETTL AND MILWARD, 1996). Although significant insights may emerge from the use of such positive theoretical approaches as principal agent theory, new institutionalism in organizational analysis and new public management, very little research necessary to provide current policy advice for the institutions charged with guiding road sector reform has yet been done.

The situation then is similar to that of a physician treating a gravely ill patient with a series of common diseases for which there is not clear consensus on treatments. This physician may know of many case histories of apparently successful treatments for some of the diseases, but there are no double blind studies confirming the effectiveness of any of the treatments. Like this physician, in the absence of convincing research policy-makers must select treatments which seem most promising, and hope that they will save the patient. Like good physicians, Namibian policy-makers should also encourage and participate in research designed to confirm the effectiveness of the road sector reform. This is the challenge for the future.

2.3 Methods and Procedures

The information required for this research was collected through mainly secondary data collection methods complemented by primary data collection methods.

The secondary methods employed included the following:

- ❖ Desk studies and content analysis of relevant policy documents, research reports, technical notes, project and programme files, progress reports and feasibility studies from a wider perspective with a view to developing an understanding of the many facets of the research subject;
- ❖ Analysis of relevant literature concerning public sector reform with particular emphasis on road sector institutional development, and the management and financing of road provision and conservation;
- ❖ Studies of documented experiences from selected Latin America and the Caribbean as well as from Sub-saharan Africa countries and SADC region.

In addition to secondary methods the following primary data collection methods were employed:

- ❖ Focused interviews and discussion with key informants (Appendix 3, Table 9) from the Department of Transport in the Ministry of Works, Transport and Communication, the new road agencies, Namibia Public Workers Union (NAPWU) representing civil servants affected by the road sector reform, Namibia Bus and Taxi Association (NABTA) as well as the donors (SIDA and KfW) and civil society.

CHAPTER THREE

3 THE NEED FOR ROAD SECTOR REFORM: PAST DYSFUNCTIONS

As stated in the introduction to the study chapter the reason for poor road conservation policies appear to be attributable to the institutional framework within which roads are managed. Roads are not managed as part of the market economy. According to HEGGIE this framework biases managerial incentives and affects the way roads are managed (HEGGIE, 1994: 19). The main problems are of institutional nature, namely human resource constraints, inadequate financial arrangements, lack of clearly defined responsibilities, inefficient management structures and weak management systems. Heggie contends that these problems are the ones that cause road agencies to be inefficient. This sub-section attempts to make some diagnosis of managerial and institutional characteristics that shaped policy choices in Namibia's road sector reform.

3.1 Managerial Dysfunctions

3.1.1 *Human Resource constraints*

Road agencies suffer from acute shortage of technically qualified staff and still employ far too many unskilled workers. After independence, the Namibian Government systematically expanded the civil service, by a factor of two or three, to deliver on electoral promises and reduce unemployment. Road agencies were a key target for employment programmes. The scale of the problem with technical staff is clearly illustrated in Appendix 2, Table 8. Namibian road agencies were heavily dependent on expatriate engineers paid international salaries (US\$ 35 000, plus allowances) by multilateral and bilateral donors, such as KfW and SIDA. Salaries in many road agencies in SSA were so low that day lighting (the practice of doing another fulltime job during regular working hours) had become part of the status quo. Salaries were not only well below those in the private sector, but were frequently below the living wage (the minimum salary needed to feed and clothe a family). According to SATCC, annual median salaries varied from an adequate US\$ 10 000 plus in Botswana, Lesotho, Namibia and Swaziland to US\$ 6 000 in

Zimbabwe, US\$ 4 000 in Malawi, US\$ 2 200 in Mozambique, US\$ 950 in Tanzania, and US\$ 650 in Zambia. This had caused a "rapid exodus of experienced and competent technical staff to the private sector and parastatals The main reason has been offers of far better compensation and more generous fringe benefits" (SATCC, 1993).

Road agencies/departments paying qualified technical staff a fraction of the going market wage either ended up with high vacancy rates (such as in Kenya, Malawi, Mozambique, Uganda and Zambia), employing expatriate road engineers paid through donor - funded technical assistance programmes (as in Botswana, Lesotho, Namibia, Rwanda, Tanzania and Zambia), or with part - time staff forced to supplement their incomes by moonlighting, daylighting, manipulating allowances, and pilfering. These problems did not appear to be solved through training, bonded studentships, and improved allowances. There was no point training staff that only spent a fraction of their time on the job. Likewise, bonded graduates had no interest in making a career in the roads department. They simply counted the days to the end of their bonding period. Improved allowances were equally ineffective since they were discretionary, subject to change and were not bankable (i.e. cannot be used as security for mortgages and other loans). One could not manage a road sector with a demoralized, part-time staff, either.

3.1.2 *Inadequate Financial Arrangements*

The status of Namibia as a middle-income country has made it difficult for the country to access external resources, in particular from the World Bank and the African Development Bank, to address her development objectives of reduction of the pronounced inequality and poverty. Some bilateral and multilateral donors, such as SIDA and KfW, were able to recognise Namibia's development needs in their allocation of development assistance.

Since independence, Namibia's external debt has remained static. In 1990, the outstanding debt stood at N\$ 537,5 million and by the end of 1998, it amounted to N\$ 545 million, equivalent to US\$ 100 million. According to the 1999 Annual Report of the Bank of Namibia, external debt stood at N\$ 729 million at the end of December 1999, an increase of 33,7 per cent over the preceding year. As a ratio of GDP, the external debt represented 3,9 per cent, which was far below the critical level of 50 per cent for middle income countries such as Namibia indicating that the country did not have external debt

problem compared to other similar countries in SSA.

However, domestic debt had been increasing at an alarming rate. In 1990, the total outstanding domestic debt was N\$ 3 365 million because of financing the budget deficit. As at the end of 1999 domestic debt had risen to N\$ 4 112 million, an increase of 22 per cent in one year. The government had been borrowing through Treasury bills and internal registered stocks.

Comparing Namibia's debt indicators with other middle income countries the debt service ratio, which assesses the proportion of export earnings needed to pay service, was 2,2 per cent in 1998, compared to the critical threshold of 20 per cent. Similarly, the budget service as a proportion of domestically generated budget revenue, was 13,3 per cent, as compared to the critical ratio of 30 per cent. This ratio measures government's ability to finance debt service from domestic sources. The external disbursed debt as a percentage of GDP, which measures the level of the country indebtedness to the scale of domestic economic activity, was 3,3 per cent as compared to the critical level of 50 per cent of middle level countries. However, these indicators did not reflect the true picture, as some of the guaranteed loans by government to parastatals (estimated to be N\$ 1 billion according to Ministry of Finance, 2000) were not reflected in these ratios, and as such the indicators should be higher. When government guaranteed loans to public enterprises were added, total public debt would rise to N\$ 6,7 billion, or a rise from 23,5 per cent in 1998 to 36 per cent of the GDP in 1998 (Bank of Namibia, 1999).

The system of financing road provision and conservation in Namibia was inadequate. Most of Namibia's road expenditures were financed through general tax revenues allocated as part of the annual budgetary process. The budget allocation process was further flawed and politicised. Large spending ministries, particularly those spending large sums on maintenance such as the Ministry of Works, Transport and Communication, nearly always lost out in the budget negotiations. As a result, road conservation for instance, had been postponed in the hope that better fiscal conditions would present themselves in the future. They rarely did, and road conservation continued to be cut or deferred: an inherent structural problem.

Another reason road conservation was underfunded was that Namibia had to spend more on new investments, mainly upgrading existing roads and construction of feeder roads

even when there were no funds to maintain them. Preference for construction over maintenance was perhaps due to the fact that maintenance was mainly financed under the recurrent budget, while investment was financed under the development budget. Since donors were willing to support the development budget, development funds were less constrained than recurrent funds, which were largely financed from domestic revenue sources. Another important reason for favouring new road construction was that construction contracts tended to be larger, hence offering greater opportunities for gratification payments, and were politically more visible and produced more political prestige.

3.1.3 *Lack of clear responsibilities*

In many countries it is often unclear which agency is responsible for managing different parts of the road network, controlling overloading, managing urban traffic, intervening to improve road safety, or intervening to reduce the adverse environmental impacts associated with road traffic.

In Namibia such responsibility was spread among a whole range of government agencies. For example, construction of trunk roads was handled by DOT with some parts of physical road construction contracted out to private contractor companies. Road maintenance was handled solely by the DOT. City and municipal councils dealt with city and town roads. The traffic police of the Ministry of Home Affairs handled traffic regulation and enforcement. Some towns such as the City of Windhoek had their own traffic enforcement agencies.

The fragmentation of responsibility, together with the separation of responsibility for road construction from that of conservation, led to duplication, confusion and a lack of coherent management policies. In addition, individual road agencies rarely had clearly defined responsibilities. For example, it was not clear to some road agencies in urban municipalities in Namibia whose responsibility it was for paying for maintenance of their roads. This created problems where such roads were under the jurisdiction of local authorities but were meant to be financed through the central government budget.

This model of road administration was cumbersome and largely ineffective as a framework for promoting a more commercial approach to the management of roads. Reporting lines, for instance, were long and tortuous, numerous support services were

shared and hence suffered from conflicting priorities. Although the road function typically accounted for about 70 percent of the Ministry's budget, the roads department was placed alongside other functions such as meteorological services, civil aviation, maritime affairs or being contracted out (physical road construction). This distracted the attention of the Under - Secretary of DOT, through whom roads had to report.

Reporting directly to the Permanent Secretary of the Ministry, the Under-Secretary was rather occupying the position as a line manager than chief executive officer of a large and important department of transport. This contrasted with the position of parastatals, which had a board, chief executive officer and several line managers.

The said management structure was thus an anachronism and dated back to the time when expenditures on roads were roughly the same as they were on public buildings and government plant and equipment.

3.1.4 *Weak Management Systems*

The poor management structures provided road managers with little incentive to introduce and develop effective road management systems, such as financial accounting and management information systems. The DOT financial accounting system provided little information to support informed management decisions. For instance, the DOT had no revenue account for the road sector, and hence no cash flow statement. Accounts were kept on a cash basis, investments were written off as a cash expense as soon as they were incurred. The DOT did not appear to depreciate assets or keep a balance sheet. Owing to very broad cost headings and a great deal of aggregation in the general accounting system, it was very difficult to identify the specific expenditures attributable to roads, for example how much had been spent on routine maintenance and periodic maintenance, the breakdown of costs between overheads, labour and equipment, the unit costs of shoulder repairs, regravelling and drains cleaning. Such poor accounting systems made it difficult, if not impossible, for road managers to establish consistent spending priorities.

Likewise, there was a dire need for effective management information system to support the mission of the DOT, which was to ensure the availability of cost-effective and safe transport services, access to infrastructure and the participation of the people in the supply of transport services. Effective road management system would provide the

necessary decision support to management in order to ensure cost-effective provision and conservation of the road network, and to facilitate accountability of performance in areas such as routine maintenance management, pavement management, determination of network-wide conservation priorities, as well performance budgeting. All these problems led toward DOT not managing resources aggressively to achieve maximum value for money, while relying heavily on force account work and facing no market discipline.

3.1.5 *Inefficient Work Methods*

The DOT's undue emphasis on force account as its modus operandi, in spite of its variable and higher cost, manifested itself in poor quality road services being delivered, based on its usually inadequate annual budget allocations. For instance, recent year's annual budget for maintenance of roads in Namibia had remained constant, approximately N\$ 178, 9 million annually, whereas the total road maintenance costs averaged N\$ 94,2 million per annum (National Budget 1996 - 2000).

The bulk of road maintenance, particularly routine maintenance, was carried out through force account. Owing to cumbersome procurement procedures in the government approximately 20 - 30 per cent of the budget allocation was spent on contract maintenance. Approximately 90 per cent of routine maintenance and 70 per cent of periodic maintenance work were done in-house by force account. But evidence suggested that under force account there were few built-in incentives for efficiency production (HUMPLICK AND MOINI-ARAGHI, 1996).

Inefficient government plant pool was another problem perhaps pointing to lack of market discipline. The DOT owned about N\$ 50 million worth of heavy plant and equipment. Utilisation rates of this equipment rarely exceeded 20 to 30 per cent, compared to 80 to 90 per cent in the private sector, and the economic losses associated with these low utilisation rates can amount to over N\$ 160 million per annum.

The superficial reasons for such low utilisation rates include poor management systems, lack of standardisation, shortage of foreign exchange to purchase spare parts, and shortage of trained equipment operators and mechanics (mainly due to poor terms and conditions of employment). However, the actual reasons in DOT were related to lack of a stable work load (i.e. inadequate road conservation allocations and an erratic flow of funds), lack of transparent management systems (i.e. costing systems clearly spelling out

the costs of low utilisation levels), and lack of managerial accountability, where nobody cared whether the equipment was underutilised or not.

Another aspect symptomatic of lack of market discipline in the DOT was lack of interest in labour - based work methods despite the acute unemployment rates in the country, 35 per cent according to the Namibian Labour Force Survey, 1997. Not only were labour - based methods often much cheaper, as was demonstrated in Tanzania and Ghana where their labour - based contracts came in at about 30 per cent below traditional contract prices, they were also more reliable because government plant pools where in such a disarray (HEGGIE, 1994).

Despite this important development, government procurement procedures discouraged the letting of small contracts. For instance, one - man contractors could not be expected to follow standard and cumbersome tender procedures. Moreover, donor policies, which emphasized international competitive bidding and preference for financing foreign exchange expenditures, added to the bias against labour - based work methods. Furthermore, this bias was accentuated by the fact that labour - based work methods offered less scope for gratification payments and, as a result, management was not under direct pressure to find the cheapest and most effective way of getting the work done. According to SHIRLEY (1989), competition is the primary factor that motivates managers to cut waste, improve operational performance, and allocate resources efficiently.

3.2 Institutional Deficiencies

Since vague and/or unachievable performance specifications undermine good accountability arrangements, it was necessary to define the performance that chief executives were expected to deliver. Four elements of institutional performance were considered.

3.2.1 The output-outcome Distinction

In Namibia accountability between ministers and their ministries is based on the conventional distinction between goods and services produced (outputs) and the effects of those outputs on the community (outcomes). Chief executive officers assumed responsibility for specified outputs from their institutions, while ministers chose which outputs would be purchased to achieve certain outcomes. This means that the minister, not the entity, is responsible for the outcome. Governments are interested in achieving

outcomes and would like to contract for them if it makes sense to do so. Since outcomes are often not within the control of the chief executive officer, he or she cannot be held accountable. They can, however, be held accountable for outputs, which can be relatively well defined and are within the executive officer's control. The distinction between who is accountable for outputs and who for outcomes is common in the private sector as well.

The understanding of this element was imperative for new entities to be able to understand that, just as in the private sector, their survival was dependent upon meeting the needs of their customer. Since their customer (road user) was interested in outcomes, entities, given sufficient competitive pressure would strive to design and provide public services to help achieve those outcomes.

3.2.2 *The Owner-Purchaser Distinction*

In addition to purchasing most of an entity's outputs, the government is also the entity's owner. As the purchaser, the government wishes to obtain goods and services of a specified quantity and quality for the lowest price, whether it is buying from the private or public sector. This enhances price competition.

The Namibian reform approach recognised these two perspectives as two dimensions of institutional performance. As a result, performance agreements with each chief executive officer of the road agencies, which specify each dimension, have been concluded. The fact that governments purchase goods and services from their road agencies and also own those agencies could rise to conflicting objectives. In Namibia this conflict was dealt with by allowing agencies to price their outputs equivalent to the price charged by the private sector. This would enable the agency's business performance to be fairly assessed using normal business evaluations.

3.2.3 *The Government-Agency Distinction*

The approach used in Namibia permits chief executive officers and their boards to make all input decisions, including capital investment decisions within a defined capital base. Such authority is essential if boards and chief executive officers are to be held accountable for producing outputs in the most efficient manner.

3.2.4 *Policy Advice-Service Delivery Distinction*

Where an institution provides policy advice and service delivery, a potential conflict of

interest arises between the two functions. Separating them reduces the potential for policy advice bias. The Namibian reforms created an institutional framework that separated the two functions. The system vested general responsibility for policy advice and formulation in the ministry responsible for roads, while the delivery of road services is entrusted to the newly-created road agencies. Since the ministry responsible for roads did not deliver services any longer, its advice about appropriate interventions could be independent of the business implications for the Ministry. A related reason for separating these functions was to reduce the tendency for special interest groups to "capture" the road agencies that regulate them (POSNER, 1974). This rent-seeking behaviour could be reduced if regulatory policy was designed in one institution and enforced in another.

3.3 Road Network Administration

The history of road network management had been one of centralization. The management of existing roads was almost exclusively in the hands of the Department of Transport (DOT) falling under the Ministry of Works, Transport and Communication. Some parts of physical construction works were contracted out to private contractor companies. Even in these cases tasks were carried out under direct control of the line ministry. Roads were treated as a public service comparable to other public utilities such as water, electricity or telecommunications. The difference was only in that the users of road service used the service free of charge in sharp contrast to users of other public utility services who pay charges/tariffs for using the service.

The DOT, which enjoyed a *de facto* monopoly, was responsible for the planning, design, construction and maintenance of the public roads in Namibia, rural roads, some urban roads through smaller municipal or local authority areas, and certain state-owned aerodromes. It also performed functions of road administration, the management of road traffic, regulation of road transport, and certain essential functions in civil aviation. For several years, the DOT was providing these services using funds allocated by national budget. In particular, the road administration was dependent on state funds to increase its investment capital, to renew its assets and even to reduce the scale of its operations in order to make economies. Its success was largely measured in engineering terms, i.e. how many kilometres of roads have been built and to what design standards. Because of this, the task of conserving the already built roads appears to have been relegated to a secondary role.

The Department consisted of the Directorate Planning and Transportation Management (DPTM), the Directorate Transportation Infrastructure Maintenance and Construction (DTIMC), the Directorate Civil Aviation (DCA), and a separate division responsible for Maritime Affairs. Regarding certain financial and personnel matters, the Department of Administration and Centralised Support Services of the Ministry of Works, Transport and Communication supported the DOT.

A Director, who was assisted by four divisional heads, each controlling a division, headed the DPTM. The divisions were: Road Transport Regulatory Services, Transportation Management, Transport Infrastructure Planning and Design, and Construction Materials and Road Management System. The directorate was responsible for the planning of the road network, design, setting of geometrical standards, control of work done by consultants, management of DOTs computer system, materials testing, DOTs road management system, transportation regulatory administration and transportation policy matters.

The DTIMC was headed by a Director, who was assisted by five divisional heads, each controlling a division. The divisions were: Maintenance Roads and Aerodromes - North, Maintenance Roads and Aerodromes - Central/South, Construction and Rehabilitation, Plant and Equipment, and Administrative Support. This directorate was responsible for the maintenance of the existing transport infrastructure (roads, drainage structures and state aerodromes) and the construction of new infrastructure.

In general terms, and viewed from an international best practice perspective, the DOT appear to have been managed in accordance with what SWILLING and WOODRIDGE (1997) called outdated practices:

- ❖ **Rule-driven bureaucracy**, premised on a highly complex set of rules and procedures entrenched in the Public Service Act. Management-by-regulation appears to hamper performance as this is measured in terms of adherence to the rules and regulations rather than on achievement of results. This arrangement could hamstring creativity and a culture of service;
- ❖ **Outdated management styles**, based on the classical public administration doctrine, that tends to be authoritarian, highly rigid and inflexible;

- ❖ **Lack of accountability**, which focuses on making civil servants not directly accountable to the end-user citizens;
- ❖ **Lack of transparency**, where access to relevant information is denied to frontline workers thereby affecting adversely the credibility and accountability of the government;
- ❖ **Unresponsiveness to citizens as consumers**, where the administrative machine produces standard services on a mass scale without taking into account consumer differentiated needs and desires;
- ❖ **Poor labour relations**, where the legislative and institutional framework governing labour relations is inflexible and inadequate;
- ❖ **Inadequately trained staff**, due to neglect of senior management development, and staff development at lower levels of the public service;
- ❖ **A de-skilled hierarchy of jobs**, having a corporate pyramidal organizational structures and salary scales of the public service and minutely detailed job descriptions, crude reward systems, cumbersome disciplinary procedures. All these appear to have been designed to stifle initiatives and creativity.

The Namibian key stakeholders such as transport companies, road users, and trade unions perceived this red tape to be counter-productive to road sector performance. This has been an issue in MWTC 2000 Project meetings.

The implication of this was that, to boost performance, efforts had to be directed at specific levels of performance determination, namely ownership, management, responsibility, organizational structure and financing. This had also to involve one environmental factor, namely the revision of the regulatory framework.

The Namibian public sector, typical of a developing country, has a formal management control system that prescribes how government should operate. This system is overseen by powerful central agencies such as the Ministry of Finance, the Public Service Commission and the procurement agency (Tender Board). On paper everything is done according to rule. The civil service system is based on detailed classification of positions and ranks, each with its own job descriptions, skill and experience requirements, eligibility rules and pay scale. In this formal control process, operating units, such as DOT, has to obtain advance approval from the Public Service Commission (and sometimes from Finance Ministry) before vacant positions are filled.

These formal public sector arrangements were essential preconditions for adopting elements of theories such as public choice, neo-institutionalism, new public management, etc. in Namibian road sector reform.

CHAPTER FOUR

4 OBJECTIVES OF THE ROAD SECTOR REFORM: INSTITUTIONAL DEVELOPMENT OPTIONS

This chapter builds on the previous chapters dealing with the background and underlying causes of poor road provision and conservation policies and moves on to discuss the agenda Namibia developed to reform her road sector. The question, which guided this initiative, was:

- What could be done to improve road provision and conservation policies and, more generally, to strengthen the management and financing of Namibian roads as a whole?

As stated in chapter three, the main problems affecting road provision and conservation were institutional and financial. Solving these problems required fundamental changes in the way the Namibian government managed and financed its road network.

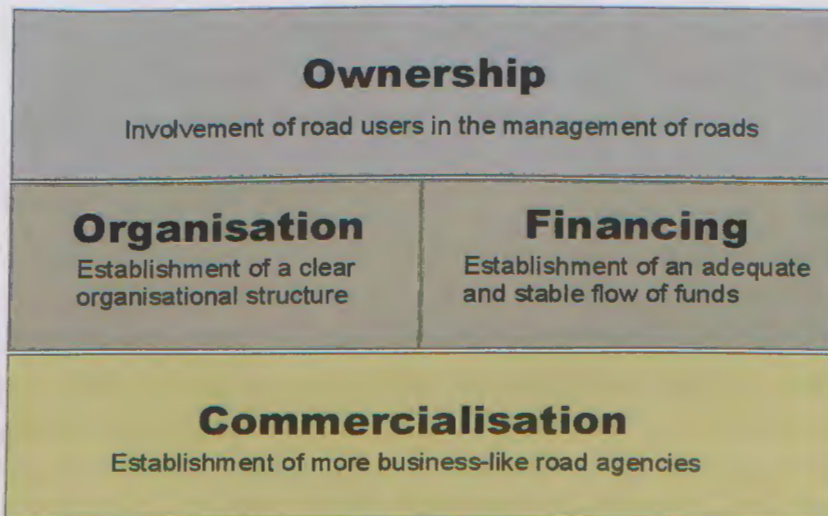
The key concept that emerged from the debate coordinated by the MWTC 2000 Project was commercialization: bringing roads into the market place, charge for their use on a fee-for-service basis and manage them like any other business enterprise.

Since roads were a public monopoly, and ownership, of most roads would remain in government hands for some time, implementing commercialization required complementary reforms in four other important areas, which constituted the basic building blocks of the road sector reform, which are shown in Figure 2 below:

- **Ownership**, which involves empowering the public to take an active role in the management of roads, thereby creating a quasi market situation whereby the authorities might gain public support for adequate funding and pressure to provide value for money.

- **Financing**, involving the development of financing models that promote economic efficiency and ensure sufficient and sustainable revenues to supply and conserve the road network.
- **Organization**, involving clear assignments of tasks and roles with corresponding authority.
- **Commercialisation**, which emphasizes effective management systems and procedures, changed attitudes toward setting priorities, pressures for more autonomy and strict managerial accountability. The pressure to change systems and procedures usually follows as a direct result of more commercial management. This calls for clear management objectives, competitive terms and conditions of employment, commercial accounting systems, consolidated budgets, cost accounts and effective management information systems. Actions on these fronts then lead to consequential actions as commercial management systems make the workings of road agencies more transparent. Transparency should create pressure for disposal of in-house plant pools (or efficient use thereof), doing more work by contract, controlling vehicle overloading and improvement of road safety.

Figure 2: Basic Building Blocks of the road sector reform



(Source: HEGGIE 1994, revised by author)

4.1 Options

Decision-making requires an overall view of the alternatives available and the real significance of each alternative. The options presented below considered ways and degrees of reorganization of the road sector in Namibia. Except for the status quo ante option, the rest of the alternatives considered different ways and degrees of transferring certain tasks and responsibilities to a new dispensation, whose building blocks constituted the core of the required reform in the Namibian road sector.

4.1.1 *Retaining the Status Quo Ante*

This means the road sector, as a whole remains a natural monopoly with all its attendant institutional and financial problems. The causes of the problems were traced to the way roads were managed and the hostile environment, which undermined incentives and staff motivation (HEGGIE, 1994). The roads department, operating as a government department, was characterised by unclear managerial responsibilities, poor staff terms and conditions of employment, lack of managerial autonomy and no independent source of revenue. This arrangement had several undesirable consequences, such as political interference, lack of professionalism, ad hoc investments, and road users paying very little, if anything, for use of the road network.

The above problems were attributable, in most cases, to lack of a business-like approach to managing roads where too much emphasis was placed on force account. One had to look for solutions in ownership, financing, organisation and commercialisation of roads (HEGGIE, 1994). For these reasons this option could not be supported.

4.1.2 *Management Restructuring*

In this scenario the management of a road network including the responsibility for physical road works is transferred by law from a government ministry to newly-formed state-owned enterprises. The safeguarding of public interest in roads remains in the hands of the government ministry or its road agency. This task can be delegated to a state - owned enterprise which may carry out physical road works with its own workforce and equipment or these tasks can be contracted out to private contractors. The management approach comprises a number of models for the organization of activities, such as the internal market model, which implies short-term contracting on the supply side.

This restructuring holds some benefits, such as:

- ❖ Reduction of direct state involvement and giving more flexibility to management to operate in a business-like environment;
- ❖ Facilitating the change of the financing system from a tax-based to user rate-based system;
- ❖ Allowing the application of an adequate, world class personnel policy framework which offers progressive salary and incentive schemes; and
- ❖ Introducing obligatory accounting and auditing instruments.

There are, however, some drawbacks associated with this system, which SCHICK (1996) also emphasized such as:

- ❖ Internal market model may not resolve basic problems on the demand side;
- ❖ State-owned enterprises could still be subjected to heavy political influence, and as such problems associated with the "ministerial" environment may not be solved per se, e.g. consumer demands may still be channeled by means of the political election mechanisms, as the internal market model does not include any extensive employment of user charges as a demand relevant mechanism;
- ❖ State - owned enterprises are normally not forced to compete against anyone, and as such, efficiency and effectiveness may not be sufficiently stimulated.
- ❖ The strong emphasis on bidding by means of short-term contracting raises the question of transaction costs with the new management framework. Traditional budget-making in an incremental model lowered transaction costs by means of so-called standard operating procedures. Internal markets must raise transaction costs (new institutionalism), as there will be no long-term contracts.
- ❖ A rise in transaction costs will also raise the possibility of opportunistic behaviour within the bidding process that takes place in short-term contracting, as persons with transaction-specific assets will have a strategic advantage in such budgetary biddings (LANE, 1993). This may necessitate the change in the role of politicians in order to ensure that managers themselves do not engage in opportunistic behaviour.
- ❖ Job security cannot be retained within such a management framework;

This option allows a certain degree of privatisation, because of greater flexibility in contracting certain tasks to private companies. This alternative solution seems to have

worked well in some countries in Europe and America where the provision of road services has been treated within a multi-product framework of decentralized provision. For the direct state involvement to be curtailed, and thereby increasing real managerial autonomy, there is a need to corporatise and commercialise road agencies while ownership stays in government hands. This appears to be the approach taken by many SADC countries implementing the Model Legislative Provisions (MLP). Corporatisation and commercialisation can take place without privatisation, can be taken in sequence or simultaneously.

4.1.2.1 Corporatisation

Corporatisation involves turning a roads department into a self-contained entity in order for its performance to be accounted for separately from that of the government ministry. For instance, some units of the Department of Transport dealing with roads, e.g. road conservation, road financing, road network planning and management, could be made a body corporate for this purpose. Corporatisation is usually combined with commercialisation, where the corporatised road agency is submitted to commercial discipline. Corporatised road agencies may suffer from the same drawbacks associated with internal market model.

4.1.2.2 Commercialisation

Commercialisation is an approach in which roads are brought into the market place, put on a fee – for – service basis and managed as a business enterprise. Its management is given more independence and consequently more responsibility for its own affairs. The agency is treated like any other commercial company earning a market rate of return, paying taxes, paying dividends and conforming to commercial accounting standards. Commercial discipline can be brought to the road agency through proactive approaches, such as the use of performance contracts and management contracts.

Commercialisation focuses on (i) creating ownership, (ii) stabilizing road financing, (iii) clarifying responsibility, and strengthening the management of roads (see Figure 2). These represent the core of reforms. They are interdependent and ideally should be implemented together. The reforms can be introduced in different ways, and the content of each building block may differ, depending on country circumstances. The Namibian road sector reform contains many features of this type of commercialization. The distinctive feature of the Namibian reform is the extensive employment of user charges as a demand relevant mechanism to achieve improved revenue mobilization. Since this

reform is still evolving, the reform needs to be monitored and the results used to modify the initiative as new information becomes available.

4.1.2.3 *Performance contracts*

Performance contracts are designed to increase autonomy and impart greater accountability for performance and results. They enhance management practices to promote efficiency, dynamic leadership resourcefulness and innovation. The contracts are entered into between the government (regulator) and the agency. Under this arrangement, remuneration of the agency employees is tied to success in meeting the targets specified in the contract. The drawbacks associated with the internal market model apply to this approach.

4.1.2.4 *Management contracts*

Management contracts involve an agreement through which the state transfers responsibility for road management including physical road works to private operators. A contract is awarded through competitive public bidding to the successful bidder. This has been the practice in Namibia before the new reforms were introduced. Private sector construction and engineering consultancy companies get work from Government this way. The variation of this could be that the government sells contracts by public tender to the highest qualified bidder. This sale means significant revenue for the state. The owner of the contract may sell it, either entirely or in shares, to other qualified entities. This introduces competition through the bidding process, and provides long-term capital investment opportunities suitable for institutional investors such as pension funds and life insurance companies. This could diminish the rising export of capital Namibia experiences on annual basis. However, this variation was not considered useful at this stage of Namibia's development.

One of the biggest drawbacks of contracting, however, is the fact that government regulators often lack the power and capacity to enforce performance and management contracts effectively (CHIWAYA, 1997:38). Another risk is that only "cosmetic" works will be done if no proper incentives are built into the contracts.

These contract-like relationships (government by contract) between government and ministers as purchasers of goods and services and departments and other entities as suppliers had been implemented in New Zealand since 1988 (World Bank, 1998). Hundreds of contracts were formally negotiated each year. The typical contract specified

the resources that one side would provide and the performance the other side would produce. Ministers were always on the resource-providing side of the relationship, while chief executives could be on the either side depending on the role they were playing. A chief executive officer provided resources in negotiating employment contracts with managers but promised results in negotiating purchase agreements with ministers and performance agreements with the State Services Commissioner. This "new contractualism" replaced the implicit or relational contracts, which characterizes classical public administration (DAVIS et al, 1997). Countries such as Sweden and the UK have embraced a managerial ethic without subscribing to the hard – edged contractualism (SCHICK, 1998). During the course of the MWTC 2000 Project, Namibia found that sharing experience was one of the most successful ways of introducing new ideas and building consensus. However, Namibia considered her problems to be unique which warranted Namibian solutions. Hence the combinations of the reform strategies.

In the views of SCHICK (1996) organizational performance in New Zealand had been significantly enhanced. But this favourable assessment carried certain caveats, some of which could be useful in Namibia especially when, in later years, the effectiveness of the road sector reform is finally assessed:

- ❖ The New Zealand model emphasizes matters that can be specified in contracts, such as the purchase of outputs, but gives inadequate attention to outcomes and the government's ownership interest because they do not fit easily into the contracting framework.
- ❖ Robust contracting depends on voluntary, self-interested action. Sometimes, however, self-interest defeats the government's collective interest. In the early years of reform, for example, efforts to establish a senior executive service were undermined by managers who preferred to contract on an individual basis.
- ❖ Contractualism may weaken traditional values of public service, personal responsibility, and professionalism. It can induce managers to take a checklist approach to accountability – "if it's not specified, it's not my responsibility."
- ❖ Contract-like arrangements do not themselves create arms-length relationships in the public sector, nor do they enable the government to toughen its insistence on performance. In most cases government has little choice but to contract with internal suppliers, typically its own departments. If these fail to perform, the government can sack the chief executive and apply some pressure. But it rarely

has the exit option that is essential to the effectiveness and enforcement of private contracts.

- ❖ Chief executives, senior managers, and others attribute most of the improvement in government performance to the discretion given to managers rather than to formal contracts. Managers differ on how much value is added by contracts, but few think that they have been the main contributor to higher operational efficiency.
- ❖ Contracting is not costless. Negotiating and enforcing contracts entails enormous transaction costs that have not been systematically studied, although they take a deep bite out of operating budgets, especially those of small departments.

These concerns point to the unfinished business of public sector reform in New Zealand. In promoting internal markets within government, the New Zealand government has devised creative alternatives to privatization while carrying the pursuit of operational efficiency well beyond standard market-type mechanisms such as user charges.

4.1.3 *Organisational restructuring*

4.1.3.1 *Devolution*

In this scenario the existing Department of Transport, for instance, is retained but decentralisation in the form of **devolution** is introduced. In this connection, the management of the road network and the responsibility for physical road works is transferred by law from the Ministry to various regional or local authorities. In Namibia, the management of town and municipal roads have been transferred to local authorities, for example to the Windhoek Municipality. Under the new dispensation the municipalities and regional councils will get subsidies from the Road Fund Administration for this purpose. The regional or local road agencies are expected to increase operational efficiency in billing, revenue collection, planning and budgeting, since decision - making takes place close to geographical locations they refer to. Such arrangement is said to facilitate participation of road users and the general public in controlling the efficiency and effectiveness of the system. These benefits, it is contended, stem from improvements in allocative and productive efficiencies (HUMPLICK AND MOINI-ARAGHI, 1996).

Allocative efficiency is said to be improved by decentralisation because local councils have a better understanding of the local demand for public goods and services, and are able to allocate scarce resources to better match this demand, thereby increasing

satisfaction and welfare.

Productive efficiency also is improved, in many cases, because local governments are able to deliver goods at lower cost than national bodies.

Whether these claimed benefits can materialise in practice is another matter. In some countries, such as Colombia, the devolution experience has been positive, whereas in others, such as the United States of America, devolution has failed to deliver the gains promised, increasing unit costs and expenditure to satisfy local preferences on road conservation, instead (HUMPLICK AND ESTACHE, 1995).

Again in their 1996 analysis of the experience in decentralisation of road provision activities in a panel of eight countries, a longitudinal analysis over 25 years of change in Korea, and a vertical and horizontal analysis across states and local governments in Germany, HUMPLICK and MOINI-ARAGHI concluded the following:

- ❖ The impact of decentralisation (devolution) varies depending on which aspect one is considering: efficiency of producing road services or the impact on road users. **Resource costs** (the costs of providing roads in dollar per kilometre) are concave, increasing first and decreasing at the later stages of decentralisation. **Preference costs** (the costs to road users as a result of bad roads) are downward sloping, implying that road conditions improve as decentralisation advances;

The implication of this find is that there are initial costs to decentralization, most of which seem to be in the form of losses in economies of scale. However, empirical evidence exists, according to HUMPLICK and MOINI-ARAGHI, to suggest that the losses can be outweighed by increases in efficiency that come about when the locus of provision is closer to the people.

- ❖ Road conservation functions are best provided at the local government level, with the optimal range being more than 40 but less than 70 percent fiscal responsibility at the local level, when the optimisation involves minimising both resource and preference costs (HUMPLICK AND MOINI-ARAGHI, 1996).
- ❖ If the objective is resource cost minimisation, then the optimal level for road

construction functions is either complete fiscal centralisation or complete decentralisation. There is evidence to suggest that when decentralization was deepened, the level of cost efficiency improved even further (WALZER et al, 1989). This result supports the classical fiscal federalism argument that local governments are closer to the point of demand and are, therefore, more efficient providers of road services (MUSGRAVE, 1959; OATES, 1972). Similarly, consistent with public choice theory, devolution of administrative functions is considered desirable because it leads to larger efficiency gains in terms of resource cost savings. However, Walzer's study also finds that the economies of scale and technological effects make the central government a good provider of road construction services (i.e. in terms of financing and not necessarily producing the works through force account), while ability to match supply to demand makes decentralised units more efficient; and

- ❖ Administrative activities are more efficiently provided at decentralised levels similar to those for conservation, such as in Korea and Argentina.

The Walzer analysis results indicate definite benefits to decentralization for activities that are more localized such as road maintenance, and lesser benefits from decentralized construction and administration of roads which have the potential for large externalities.

Although this option can reduce vertical monopoly power, it may also lead to the loss of economies of coordination, inducing overall higher road tariffs. In the absence of effective regulation, lack of coordination can cause institutional and administrative problems, as well as cost inefficiencies and poor conditions such as in Indonesia. While Indonesia is not as good performer as Brazil in terms of resource costs, it is better with respect to preferences costs. This is due apparently to centralisation of fiscal authority (HUMPLICK AND MOINI-ARAGHI, 1996).

But for a country faced with severe financial deficits, decreasing levels of exports, rising prices of energy and diminishing foreign assistance, decentralization may be regarded as an optimal strategy to use limited resources more effectively. To date, many governments have used decentralization as a common strategy to revitalize and rebuild road networks and to strengthen their systems of administration and maintenance, HUMPLICK and MOINI-ARAGHI, in their 1996 study found evidence to this effect, both for developed and developing countries.

4.1.4 Ownership restructuring

Ownership restructuring is a broad policy response to the economic performance of governments to and the recognised need for structural reform of government agencies, state enterprises, and national economies. Apart from their fundamental role of making and enforcing laws that enable their societies to function, governments are also involved in planning, paying for and producing various goods and services. Any or all these roles can be privatised. The increasing attraction of privatization as a set of strategies for reforming the public sector stems from a dissatisfaction with the "traditional" organizational structure of the public sector. It is argued that the bureau model originating in the Weberian approach to bureaucracy faces severe problems of leadership as well as efficiency (LANE, 1993: 184). According to SAVAS (1989), *privatisation* means, "to rely more on the private institutions of society and less on government to satisfy people's needs". This means increasing the role of the market, or decreasing the role of government, in an activity or in the ownership of assets. In the Namibian sense, government activities such as provision and financing of road services can be privatized using three broad strategies, namely divestment, delegation and displacement. Privatization involves both ends and means. The means of privatization stretch from replacing public ownership with private ownership to the introduction of private sector management techniques into the public sector. The ends of privatization include enhancement of efficiency and avoidance of the apparent weaknesses of "big" government. But improvements in efficiency have been observed to be leading to job losses in many parts of the world. In economies like that of Namibia, where organized sector employment is already thin and unemployment problems loom large, policy-makers are hesitant about announcing measures that would inevitably mean job losses.

Although, in general, public management models are replacing the "traditional" public administrator role, the latter remains relevant for certain aspects of the public sector, e.g. public interest. This is in sharp contrast with the public choice theory.

- ❖ **Divestment**, which means government sheds an asset through either sale, donation or liquidation;
- ❖ **Delegation**, which means government giving the private sector part or all of the activity of producing goods or services, while government retains the responsibility to oversee the result. Delegation can be carried out by contract, franchise, grant,

voucher or mandate;

- ❖ **Displacement**, which is a more passive process, leads to government being displaced more or less gradually by the private sector (withering away of the state), at least to a degree, as markets develop to satisfy the need. Displacement takes place by default, withdrawal or deregulation.

Independent road network management and financing participation can be developed through a number of possible ownership arrangements.

4.1.4.1 Divestment

This approach argues that external markets are more efficient. In this connection one may consider hiving off the provision of goods and services to the private sector instead of replacing public administration with public management.

Selling of road infrastructure can be done in five ways, namely:

- ❖ Selling the road assets to a single buyer in a negotiated sale (concessions);
- ❖ Selling to the public by issuing and selling shares;
- ❖ Selling to the managers;
- ❖ Selling to the employees; and
- ❖ Selling the assets to users or customers.

Divestment by donation does not require sale of assets. The assets could be given away free of charge to, for example, employees, users or the general public.

Divestment by liquidation can be carried out by selling the assets of a poorly performing entity by liquidating it first.

Although Namibia has adopted the policy of liberalizing and deregulating various aspects of her transport systems, the policy of privatizing road services in the form of selling aspects of the road sector is considered unrealistic. It is Government's view that the goals of efficiency and effectiveness of transport infrastructure can be enhanced in ensuring competition in the provision and conservation of road infrastructure within the realm of the public sector.

4.1.4.2 Delegation

Perhaps the two clearest options based on this strategy are build-operate-transfer (BOT) and build-operate-own (BOO). These involve delegation by contract or franchise.

Build-operate-transfer is an arrangement whereby a private developer is granted a contract to, for instance, raise funds, build a road, operate it and sell the road services to road users for a certain period, usually, between 10 and 25 years. At the end of the franchise period, when the investment would have been recouped, ownership of the road is transferred to the government at a token price.

One variation of BOT is **build-lease-transfer** (BLT). In this case the private investor builds a road infrastructure and leases it to another operator. After the contract period the road is eventually transferred to the host agency.

Build-operate-own arrangements operate almost similar to BOT, but in the BOO approach, the ownership of the road, for instance, is kept in perpetuity by the private developer.

Delegation can also be achieved by awarding grants, where the government arranges for a private entity to do the work, for example, build the road, and provides subsidy. This system subsidizes producers.

Governments can also delegate by issuing vouchers to eligible road users to purchase transportation services in the market place. Vouchers subsidize eligible consumers.

4.1.4.3 Displacement

Displacement is a somewhat more passive process that leads to government's role being taken over by private sector gradually.

Displacement by default occurs when the private sector discovers a niche in the market and serves it, or entrepreneurs sense the market demand and fill the void. For example, private firms satisfy infrastructure needs that have been neglected by government agencies, by financing, building and operating roads and bridges, for example, and the "chunnel" under the English channel (FITZGERALD, 1988).

Displacement by withdrawal, is achieved when government disengages deliberately from the provision of services and accommodates private sector expansion into that fields, for example, maintenance of certain roads.

Government can *deregulate* by enabling the private sector to challenge a moribund government monopoly by repealing laws that prohibit private ownership.

Privatisation of road infrastructure can be carried out using a combination of the methods discussed above. Although it is perhaps too early for me to reject the relevance of market values in the reform of the public sector, what ought to be questioned here is whether transforming the road sector into internal markets is the right way to proceed in the reform. With internal markets it is meant the all – out employment of bidding for the provision and conservation of transportation services.

One concern about this market oriented approach is the fact that it may lead to “congestion, confusion and chaos”, as SAVAS would put it.

Another concern is that in areas of low traffic like Namibia, this free market transport services, may not be sustainable. For instance, Namibia may find it difficult to operate toll roads owing to her small population of road users. May be the best route could be the satisfaction of road user needs through the process of delegation. In this case, the government can specify the level of service it requires in the low - demand areas and solicit demands from private firms.

4.1.5 *Regulatory restructuring*

A firm legal basis for road network management and financing has been shown through experience to be a vital ingredient in the success of any establishment. Critical to the successful performance of the road sector is the management and technical competence of the staff, the clarity of performance objectives, the transparency of the performance management process and the operational autonomy of the staff.

Unfortunately, these are the areas where the previous Namibian legal framework has been least successful. The regulatory framework was characterised by government control in areas such as capital budgets, expenditure, procurement, decision-making and staffing. This situation appears to have stifled the efficient running of the Department of

Transport in a maze of bureaucratic procedures, such as the ones posited by Swilling and Woodridge. The problem was exacerbated by the Department's lack of capacity and requisite skills in managing and financing the road sector, a shortage of staff caused by poor remuneration in the public sector relative to the parastatal and private sectors.

4.1.6 *Stakeholder Involvement*

The primary reason for reforming/restructuring the road network system is to improve performance, and thereby making government, road users, employees, vehicle owners and operators, legislators, political executives, road contractors, ecological groups, media and general public better off.

Roads serve the direct users who drive on them and move people or goods from one place to another. This group in Namibia includes commercial transport companies, owners and drivers of trucks, buses and utility vehicles. Major road freight operators include TransNamib, Road Runners, FP du Toit, Jowells Transport, Anderson Transport, Wesbank Transport, and Namib Contract Haulage. They operate from different towns in Namibia and convey a wide variety of goods over long distances (Appendix 2, Table 4). A further approximately twenty companies have private and public permits to operate for instance, to and from neighbouring countries to carry many different types of goods such as cattle, minerals, fish, and household removals. The heavy vehicle demand, serving the total road haulage market, on the primary road network could be tremendous. The percentage of heavy vehicles typically varies between 10% to 30% of total traffic demand, which an average generally found on primary roads in SADC (NTDP, 1997). These users are potential winners since improved roads benefit them directly. Other direct users are drivers of individually owned vehicles who use roads to get to work or business or simply for the pleasure of motoring. Their interests are satisfied if enough roads exist in good quality and condition to minimise vehicle operating costs and make traveling comfortable.

Another group of beneficiaries from the road network is the group of manufacturers of goods and services, such as farmers and business people such as mining, fishing and retail businesses. Taxi operators (NABTA) also supply what is essentially a public transport service throughout the country. Their main interest is fast and secure transport at the lowest possible cost.

Passengers of transport companies have similar interests but more so with regard to their

personal safety. Moreover, the state of the roads has influence on the price of transport. Such passengers are involved in commuting, inter-urban and long-distance scheduled and non-scheduled services.

Legislators, government authorities and local politicians such as regional and local councilors show preference for public transport as a sign of progress and personal commitment to the nation. The road sector reform had to be on a center stage for politicians to promote it. Politicians need to play their role of governing and seek the common good of society. Their involvement was necessary in the creation of the legal base for subsequent road sector reform.

Employees of road agencies such as DOT, are interested in obtaining funds for expanding the network by building new roads, reconstructing or rehabilitating deteriorated roads, carrying out maintenance and strengthening the agencies in general. They also depend on the roads for their survival as employees.

Road contractors such as Group Five, Group Two, and road consulting firms in Namibia, are interested in construction and conservation of roads. They are interested in more funds being made available to the road system to guarantee permanent employment of their capacities and maximise profits. Since their emphasis is normally on new road construction and/or road rehabilitation, the new road system emphasizing more conservation of roads, has to be sold to them. Hence their involvement and participation in the policy process.

Ecological groups such as the Ministry of Environment and Tourism, are interested in proper road conservation since roads are an alteration to the environment and landscape. Construction of the existing road network has already caused an environmental impact whose consequences are still felt. Defective conservation, therefore, causes roads to deteriorate and to require subsequent reconstruction, which affects the environment adversely. Ecological groups need to see the consistency with defending the environment and conserving the roads in order to support a policy to this effect. Hence their involvement.

The general public prefers improvements and paving of roads as a general progress of the country. Bad roads may become a public issue if the public is not keeping pace with

developments in the road sector. Roads were constructed to serve the interests of the public in general. The media are sensitive to public interests and, as such, may bring up road conservation once the network is in bad shape.

This exploration of the interests of stakeholders shows that many individuals and groups have an interest in good roads. It would appear that major policy reforms in the road sector are unlikely to succeed without the active support of road users. They are the people who use the road network and also pay for it. They need to be involved in road management, since this is generally an essential precondition for getting them to willingly pay for roads on a fee-for-service basis.

The reform in Namibia tried where possible to accommodate the views of all the stakeholders in question. Most of the interest groups were involved in the MWTC 2000 Project Steering Committee. Others were participating on a permanent basis, in statutory bodies, such as, the National Road Safety Council, the Namibia Transport Advisory Board, Transportation Commission of Namibia and the Road Transport Board of Namibia. In addition, regional and local councilors participate in regional Road Boards, which had been established to serve the interests of the regional and local authorities, and advise the Minister responsible for Transport, on their needs.

CHAPTER FIVE

5 KEY AREAS OF THE ROAD SECTOR REFORM

As stated earlier, the search for ways to improve the performance of road sector has been a major policy issue in Namibia. In order to improve this performance several broad policy options were considered, of which the five most popular ones were management restructuring, organisational restructuring, ownership restructuring, funding restructuring and regulatory restructuring.

Rapid economic, technological and political change had compelled the Namibian government to depart from the public sector monopoly model of service provision. This involved embarking on broad experiments including the use of market mechanisms and citizen participation in the delivery of transportation services.

This approach helped identify combinations of institutional arrangements (checks and balances) that could enhance the efficiency of the design, delivery and regulation of road transportation services.

5.1 Policy Reform Process

The legal and institutional reform in the road sector has received more attention since Namibia's independence in 1990.

Shortly after independence in 1990 work commenced to develop a White Paper on Transport Policy. This process was driven by the MWTC. A draft White Paper on this policy was released for general comment in April 1992, and final Transport Policy was accepted by Cabinet on 4th October 1994 giving the go-ahead for the Ministry to review operational and organisational arrangements with respect to roads, airports, air navigation services and shipping. This policy aimed at providing the necessary transport infrastructure framework to support the broad national development goals as embodied in the NDPI:

- Reviving and sustaining economic growth,

- Creating employment,
- Reducing inequalities in income distribution, and
- Alleviating poverty.

The vision embodied in this Policy was to create a seamless system of transportation which would "provide safe, reliable, effective, efficient and fully integrated transport operations and infrastructure which will best meet the needs of passenger and freight customers at improving service delivery and costs ...".

The road sector problems were identified and solutions worked out through a process managed by high-level steering committee (i.e. MWTC 2000 Project Steering Committee of the Ministry of Works, Transport and Communication) with members from major stakeholders in the road sector, such as the Ministry of Finance, Ministry of Regional, Local Government and Housing, The Namibian Public Workers Union, Transport companies, National Chamber of Commerce and NABTA.

The approach that Namibia adopted introduced a multi-factor approach that addressed all reforms holistically. Namibia's reforms can thus be considered the most advanced in SADC, since it involved full implementation of the comprehensive range of institutional, technical, financial and monitoring mechanisms. Reform legislation has also been passed and is being implemented. The breadth and depth of the reforms has surpassed many other reforms in Sub-Saharan Africa, where the Road Maintenance Initiative of the World Bank placed too much emphasis on securing adequate funding while ignoring the development of the institutional framework to manage road networks efficiently.

The Namibian case study appears to have broadened the scope of road sector reforms advocated by the SADC Protocol on Transport, Communications and Meteorology, which was adopted by SADC in August 1996, by emphasizing good governance processes, linking planning, execution and road financing and operations. Good governance in the road sector boiled down to ensuring accountability and integrity in the management of public money and ensuring that this money was spent wisely. This included recognizing the need to introduce user charging as well as foster transparency in roads revenue. The Namibian approach has indeed formed part of wider institutional framework for roads in the country, thereby creating arms-length road agencies.

Already in 1995, the Ministry of Works, Transport and Communication launched the highly consultative MWTC 2000 Project for the restructuring of the Ministry along the lines of the Transport policy and Cabinet decision. This project was jointly financed and managed by the governments of Sweden and Namibia. The driving force behind this project was the growing realisation of the urgent need to increase efficiency in the Ministry by allowing it to focus on core activities such as policy-making, monitoring and overall regulation, transferring all operational activities to state-owned operational entities, operating on sound commercial principles. Donor coordination and the integration of policy reform activities with sector projects and programmes in the NDPI, such as Sector Investment Programmes (SIP's), have been some of the more challenging aspects of the reform process. Experience so far indicates thus that deep government commitment and coordinated donor support and facilitation may often be preconditions for timely formulation, adoption and implementation of an efficient and sustainable policy framework.

Table 4 in Appendix 2 shows a remarkable consistency among the main objectives of restructuring and public policies. Although it was unlikely that every initiative would adequately address all the objectives, government was committed to ensuring that the entire restructuring programme would improve overall public welfare.

5.2 The road sector policy reform targets

The making and implementation of public sector reforms may target either public resource allocation or public sector resource redistribution.

It would appear that the reform of the road sector in Namibia resulted from a search for more efficiency in public resource allocation (i.e. supply of quality road services), and not so much on cutbacks (i.e. shrinking public sector). This was amplified by the formation of commercialized road agencies within the public sector itself (Appendix 2, Table 6).

Besides reforming the supply of goods and services, on the one hand, or the transfer programmes of income distribution, on the other, there is in addition public regulation, which may be the target for reform by means of various deregulatory schemes (LANE, 1993:144 (Appendix 2, Table 7). The road sector reform in Namibia seems to have adopted Type IV when the Government transformed the DOT into corporatised road agencies, whilst owning the equity.

The reorganisation of the Namibian road sector largely consisted of redistributing three fundamental tasks of the state, namely management of the road network, physical execution (provision) of road works, and safeguarding public interest.

Road network management, consists of tasks, such as planning and programming physical road works; contracting the physical work and supervising the quality and volume of work performed; and constant evaluation of the results of management. Persons involved in this intellectual demanding activity are almost exclusively specialised professionals such as road/highway engineers and technicians, economists, accountants, legal and human resources practitioners. Road network needs to be organised in such a way that it can respond, in the best possible way, to the specific road conditions, the public interest in roads, and the aspirations of road users.

The physical execution, of road works is directed and controlled through road network management. It is based strictly on precise technical specifications, defined procedures and desired results. The execution of physical works is a specialised field. Physical execution of works requires not only labour-based methods, but also specialised equipment and professionals.

Public interest, in the road network can be summarised as follows:

- ❖ Roads should be used in an appropriate, orderly and safe manner;
- ❖ There must be an efficient road network management system including adequate road conservation;
- ❖ There must be an adequate and stable system of funding road conservation;
- ❖ There must be a good system of reducing negative effects of roads and road traffic on the environment; and
- ❖ There must be projects designed to satisfy the needs for the provision and conservation of roads.

From the foregoing, it is apparent that the public interest can be promoted only by government and its executive institutions.

Because this policy framework is still evolving, the implementation needs to be monitored and the results used to modify the system as new information becomes available. For this process to be successful in meeting desired objectives, it should be seen as one of the

many complementary means to increase efficiency which should all be pursued simultaneously for best results.

5.3 The institutional arrangements for managing road network and financing

The Namibian reforms also tried to introduce a framework for good governance that aims to democratize decision-making by involving all stakeholders (public and private) ensure stable funding flows, create effective road network management and financial planning systems, and enhances the delivery of road services.

The Namibian roads were to be brought into the market place and put on a fee - for service basis. This resulted in the formation of three focused entities: the *planner*, the *funder* and the *contractor*. These road sector entities were given more independence and consequently more responsibility for their own actions by being required to conduct business on commercial principles like business companies.

5.3.1 Roads Authority (RA)

The Roads Authority, under the auspices of the Minister of Works, Transport and Communication, manages Namibia's roads network on a commercial basis. The Roads Authority Act (No. 17 of 1999) was promulgated on 21 October 1999. The RA is directed by the Board of Directors comprising five members, while the Chief Executive Officer and his staff are responsible for management. The Authority is the planning agent in development of the existing national road network (Appendix 2, Table 2) and acts as a service provider of road infrastructure. It performs all acts of construction and conservation work through contract on the basis of competitive bidding arrangements with other service providers. The government's road delivery system is thus corporatised. The RA's road network planning task includes also the regular reclassification of those roads whose function or traffic pattern has changed to such an extent they are no longer consistent with official classification, e.g. new additions to the network.

The Roads Authority is also responsible for the administration of the Namibia Traffic Information System (NaTIS) involving vehicle and driver registration and testing, and the management of road transportation.

The Roads Authority Act requires the Authority to have a contract with the Road Fund

Administration, called the Performance Agreement, and submit a statement and an annual report to the Minister of Works, Transport and Communication. The use of the performance contract between government and the Authority was considered to be a proactive approach to bringing commercial discipline to the road sector. The contract regulates the relationship between Government and the particular state-owned road agency, involving objectives to be met, role of the Board, strategic plan, business plan, roles and responsibilities of government, corporate governance issues and related matters.

The RA adheres to a clear performance measurement in terms of efficiency and effectiveness, based on integrated multi - year planning frameworks. These measures move away from traditional civil service management procedures. The RA requests its funding for commercial roads from the Road Fund Administration for which it has to submit an annual budget. The funding for "social" roads, other than those having commercial value, must be solicited from central government budget.

5.3.2 Road Fund Administration (RFA)

An arms-length agency responsible for road financing was established under its own and separate legislation. The RFA was designed to operate on off-budget financing (i.e. charging roads users directly by putting roads on a fee-for service basis and depositing the proceeds into an off-budget account: the dedicated road fund).

The Road Fund Administration, under the auspices of the Minister of Finance, is responsible for improved revenue mobilisation, and manages the road user charging system to secure and allocate funding to achieve a safe and economically efficient road sector. The Road Fund Administration Act (No. 18 of 1999) was promulgated on 22 October 1999. The Act provided a firm legal basis for establishing a commercially managed road fund. The policy, control and management is entrusted to a Board of Directors composed of representatives of road users, business community, farmers, trade unions, etc. The Chief Executive Officer and his staff are charged with the day-to-day management of the Fund.

This second generation fund differs from conventional earmarking of general tax revenues practiced during the 1960's, 1970's and 1980's (first generation funds in Eastern Europe and Africa, such as in South Africa and Zambia). Second generation funds, according to the World Bank (2000) are radically different because:

- The arrangements are specifically designed to minimize adverse fiscal impacts on the government's budget,
- They form part of an agenda to manage roads along commercial lines (user-pay concept),
- The stricter financial discipline created by strong financial management produces benefits, which more than offset the costs of any added fiscal inflexibility.

The Road Fund Administration determines, in consultation with the Minister of Finance, the rates of the charges (road tariff) and collects them. It has to publish explicit road tariffs in the government gazette. It must use commercial accounting systems including independent financial and technical auditing. The main charging instruments used to charge road users include fuel levy, vehicle license fees, weight distance charges, and cross-border (international transit) charges, and fines for overloading.

Road user charges accrue to the dedicated road fund and may be used to defray the following expenses through a road fund budget:

- ❖ Planning, design, construction and conservation of the national road network and any major urban arterial road,
- ❖ Cost of administrative expenditures for the Road Authority and the Road Fund Administration,
- ❖ Traffic related maintenance in respect of any road,
- ❖ Contribution to cost of operation of any traffic information system,
- ❖ Cost of traffic law enforcement and adjudication functions,
- ❖ Contribution towards the cost of the operation of any vehicle testing station or driving testing centre,
- ❖ Payment of capital and interest on road related loans.
- ❖ Cost-sharing arrangements for local government and community roads.

To ensure its efficiency and effective control, the Act requires the Road Fund Administration to submit to the Minister of Finance, a performance statement, a business plan and an annual report. The road fund should also be subject to regular technical and financial audits.

5.3.3 Roads Contractor Company (RCC)

The Roads Contractor Company is fully owned by the Government of the Republic of Namibia. It was formed in terms of the Roads Contractor Company Act (No. 14 of 1999), which was promulgated on 18 October 1999. It is a state-owned public operational company incorporated under the Companies Act, and performing road conservation and construction (physical) works on a contractual basis. As a transitional arrangement, the RCC is guaranteed road construction and conservation works by the RA for three years upon which it must tender for all its works. This arrangement was a concession given to the RCC for absorbing all operational road maintenance staff, from the MWTC, upon its establishment.

The Minister of Works, Transport and Communication holds all shares in the Company on behalf of the state. He is thus regarded as the shareholding Minister. The RCC is directed by the Board of Directors with a Chief Executive Officer and his staff responsible for management.

The Company undertakes work related to the construction and/or conservation of roads in direct competition with private sector contractors. The Company enters into a Performance Agreement with Shareholding Minister. As a commercial company, the Contractor is given more independence and consequently more responsibility for its own actions. The Company must earn a market rate of return, pay taxes, pay dividends and conform to commercial accounting standards, like any other commercial business entity.

These entities commenced their operations on 1 April 2000 and as such are fairly new. The implementation stage is crucial if success is to be guaranteed. This requires looking at policy reform as a long-term process of decision-making and focusing attention on the fact that all policy reforms will encounter antagonistic reactions. The starting point may be to analyse the characteristics of this reform to determine whether the negative reaction is likely to occur in the public arena or within the bureaucratic arena.

5.4 Past legal and regulatory framework

The legal framework under which road traffic and transport was operated was governed by numerous acts and ordinances, which contained several weaknesses. Amendments were called for to take account of major changes taking place in the road transport sector.

The new act that came about, the Road Traffic and Transport Act, No. 22 of 1999, brought in flexibility in dealing with control of traffic on public roads, licensing of drivers, registration and testing of vehicles, control and regulation of road transport across Namibia's borders.

The transport services industry was well established, but some weaknesses still had to be resolved. Firstly, the road transport sector was still regulated in terms of the Road Transportation Act, 1977 (Act No. 74 of 1977), which caused the market to be dominated by a few large operators and stifled competition and access to the market by previously disadvantaged Namibians. In order to redress this condition, the recommendations of the White Paper on Transport Policy of October 1994 still had to be implemented.

Consequent to the Government's national development goals of sustained economic growth,, employment creation, poverty alleviation and reduction of income inequalities, the transport sector's overall objective for the NDP 1 period was to ensure the availability of safe, effective and efficient transport services in the different transport modes. This led to the requirement of achieving the following specific objectives in the transport sector: (a) effective and efficient provision of transport infrastructure; (b) efficient and safe operation of transport services; (c) achievement and maintenance of quality standards in transport.

With due consideration of the state of the transport sector as described above, various strategies were devised to pursue the aforementioned objectives most effectively. In brief, these strategies were mainly:

- ❖ Review of the role of Government in Transport
- ❖ Institutional reform
- ❖ Use of competition as a means to improve efficiency
- ❖ Introduction of road user charges
- ❖ Labour-based road construction and maintenance, as a means of employment creation and the alleviation of poverty, while maintaining effectiveness and efficiency
- ❖ Preparation of a National Transport Development Plan
- ❖ Preparation of a National Transportation Master Plan
- ❖ Review and preparation of Roads Master Plans
- ❖ Preparation of a new Road Traffic and Transportation Act

CHAPTER SIX

6 CONCLUDING REFLECTIONS

The adage that public ownership of the road sector as a monopoly is politically strategic and that it provides affordable transport services is now being reviewed. The reviews follow sufficient evidence. Despite of the many differences that characterize individual countries, the road sector in Namibia has inherently been a poor performer in both financial and technical terms. Access to roads was generally low during the Apartheid Regime and still remains low when compared with other developing countries such as in Latin America and the Caribbean (ZIETLOW, BULL, 1999). This is compounded by an increasing demand for good roads with augmenting population and traffic flows. Simultaneously, economies including that of Namibia appear to be getting weaker, and donor funding for road services experiences downward trends. The need to try alternative systems that are envisaged to deliver better performances in the road sector emerge as a major challenge to politicians and government.

Worldwide, managing and financing roads from a "government ministry environment" had not yielded positive results: the road sector performance remained poor despite good will from governments. It was concluded that critical factors in the performance of the road sector might tend to be beyond managerial control and lie in the organisational environment in which the road sector is usually operating. Dissatisfaction with the performance (of the road sector) called for a revision of national policies and reforms had been implemented in the structure and institutional set-up of the road sector. The legal framework in Namibia did not permit the government to formulate policies without getting too involved in the infrastructure production arena. Private sector participation in Namibia's road sector was limited to road construction and rehabilitation. Funding for these projects was sourced from inadequate flows of funds from the government annual budget.

The paper suggests that centralised government control of road agencies has restricted the ability of management to endorse good business practice, including its applications to

road tariff setting. Management in DOT may have assumed that its problems resulted from lack of incentives and lack of capital, when the inherent inefficiencies of monopoly structures were really to blame. Thus, the synergy of past dysfunctions such as managerial and institutional structures, policies and objectives may have orchestrated factors responsible for the under-performance of the road sector.

Despite general acceptance of the need to initiate and institute road sector reform for better financial and technical performance, no consensus was in place on the form and extent of effective reform measures. The main options, which were considered, were the structural path, the ownership path, or some combination of the two. In spite of this, Namibia has adopted the unique solution to the problems identified in chapter one while being guided by reform principles and paradigms followed in similar situations elsewhere in the world.

The research paper has indicated that in most countries a gradualistic approach to road sector reform is preferred to one advocating radical change to the system with immediate transfer of ownership of roads from the public to the private sector. Such an approach could not be supported in Namibia either. Namibia, as a member of SADC, subscribed to the Model Legislative Provisions prepared by SATCC Technical Unit, which sought to avoid a narrow focus on "ownership" in roads by private road users. Emphasis was placed on broad – based "entitlement" of road users, both as members of road institutions and as general interest groups with the right to influence decision-making. It was argued that the gradualistic approach encompassing changes in structure and governance, would offer road agencies and governments enough time to adjust to alternative ways of doing business while reflecting on experiences from other reformed road sectors within SADC.

Within the context of this gradualistic approach, and considering the typically small scale of road agencies in Namibia, a road sector reform through radical unbundling of previous structures was not considered to be the only option for introducing competition in the Namibian transport market. It was felt that the unbundling of existing agencies was likely to lead to increased costs in view of limited factors of production. Commercialization and corporatisation of the agencies was encouraged. Competition can still come in through deregulation of the sector to allow for independent road contractors, even in road conservation.

Whatever options were chosen, the response of vested interests was likely to be hostile because the general consensus was that public enterprises represented power bases. Both, trade unions and politicians consulted, for example, saw reform and privatisation programmes as processes of redistributing power executed as economic activities, including small-scale (black) entrepreneurship. Similarly, so did private business interests, which saw such activities as ways of acquiring more power.

The increasing traffic population in Namibia added impetus to the demand for good roads. Investments had to be made in the areas of road provision, road conservation and road safety in order to meet this demand. But finance for the new projects could not come from existing investment capital alone. Traditional donor funding was no longer considered to be an appropriate mode of sustaining the envisaged road sector development in Namibia. To support this goal new and diverse sources of finance could only come from innovative financing arrangements.

The wealth of international and regional experience in the restructuring of the public sector had informed the Namibia's road sector reform. This did not mean applying the successful reform models blindly. It was important to adapt such models to suit Namibia's socio-economic conditions. It should always be noted that the legal, regulatory, institutional, political and economic frameworks should all aim at improving performance in the road sector. This would entail economic growth, social and regional development. Trickle-down of growth and development will prevent conflict and social dysfunctions, which would undermine the economic basis of the country and the social transition of the Namibian society. The process of deregulation and structural reform is creating a competitive investment atmosphere. Transport is one of the prime movers in the national economy. The success of road network management is expected to promote growth in all sectors of the economy and ensure sustainability of national development.

It may be recalled that the main objective of this research paper was to examine main features for the restructuring of the management and financing of the Namibian road network, the steps taken in the reform process, the principles and options guiding the reform process, including lessons learned and policy conclusions drawn from this investigation.

The research paper concludes that the Namibian government has made important strides

towards commercializing road provision and conservation, thereby moving away from relying on one delivery mechanism (i.e. public monopoly model). Heavy reliance on budget funding of road services reinforced this bias. This approach appears to have been a source of managerial and institutional dysfunctions experienced in the road sector. Donor funding may have helped achieve desired targets earlier especially in the physical provision of roads. In hindsight, these "successes" often obscured low sustainability, exclusion of beneficiaries, and/or poor conservation of roads, but it did not address the underlying institutional constraints on the road sector performance. In addition, the low institutional development impact of road projects indicated that the government required a systematic focus in order to change the underlying causes for poor road service delivery.

Demand for road services tended to outstrip road maintenance, construction and funding organised by the public monopoly, which proved to be inadequate in this area. Advancements in technology and global transportation enabled greater commercial discipline to take root in service delivery activities that were previously aggregated in the DOT. This approach proved to be a watershed for the country and its citizens. For the first time, a user-pay principle was linked to delivery arrangements in the road sector. As a result, the one-size-fits-all public monopoly model gave way to a range of options. Among these options are:

- Contracting in order to minimize resource costs;
- Internal markets;
- Outsourcing;
- Concessions and
- Road user involvement to reduce preference costs.

The commercial approach to the reform proved to be more effective than any force account with its few built-in incentives for efficiency production. Policy reforms encouraging private sector participation and road user involvement seem to better meet sectoral demand. The full potential of this reform may only be realized in the long run. The new road agencies should develop and consolidate alternative governance arrangements, which combine competition, voice and hierarchy in the design, delivery and monitoring stages of road projects.

It may be recommended that future evaluations of sector performance should begin with analyzing parameters of impact between practices implemented in the emerging

institutional environment.

The Government's approach to commercialization in the road sector is illustrative of the dangers of overlooking the country's institutional factors in sector strategies. Without utilising this knowledge, commercialization could become a blueprint for problems that were themselves created by the former one-size-fits-all public monopoly model which proved to be inadequate and unsustainable. Ongoing research should investigate the impacts of information, economies of scale and social effects relating from competitive private provision and maintenance of commercialized road services.

Since the road agencies, the Roads Authority, the Road Contractor Company and the Road Fund Administration, have started operating recently, it is far too early to judge their performance and long-term sustainability. Whether the road agencies, which have been established, will survive in the long run is yet to be seen. However, the more agencies follow the principles, which should make them sustainable, the more are their chances of survival. This also depends on the internal and external changing environments in which they operate. Without doubt, the politico-economic and socio-cultural stability and transition of the country will draw from these principles and, at the same time, pursue the already established culture of citizen participation in public and communal affairs.

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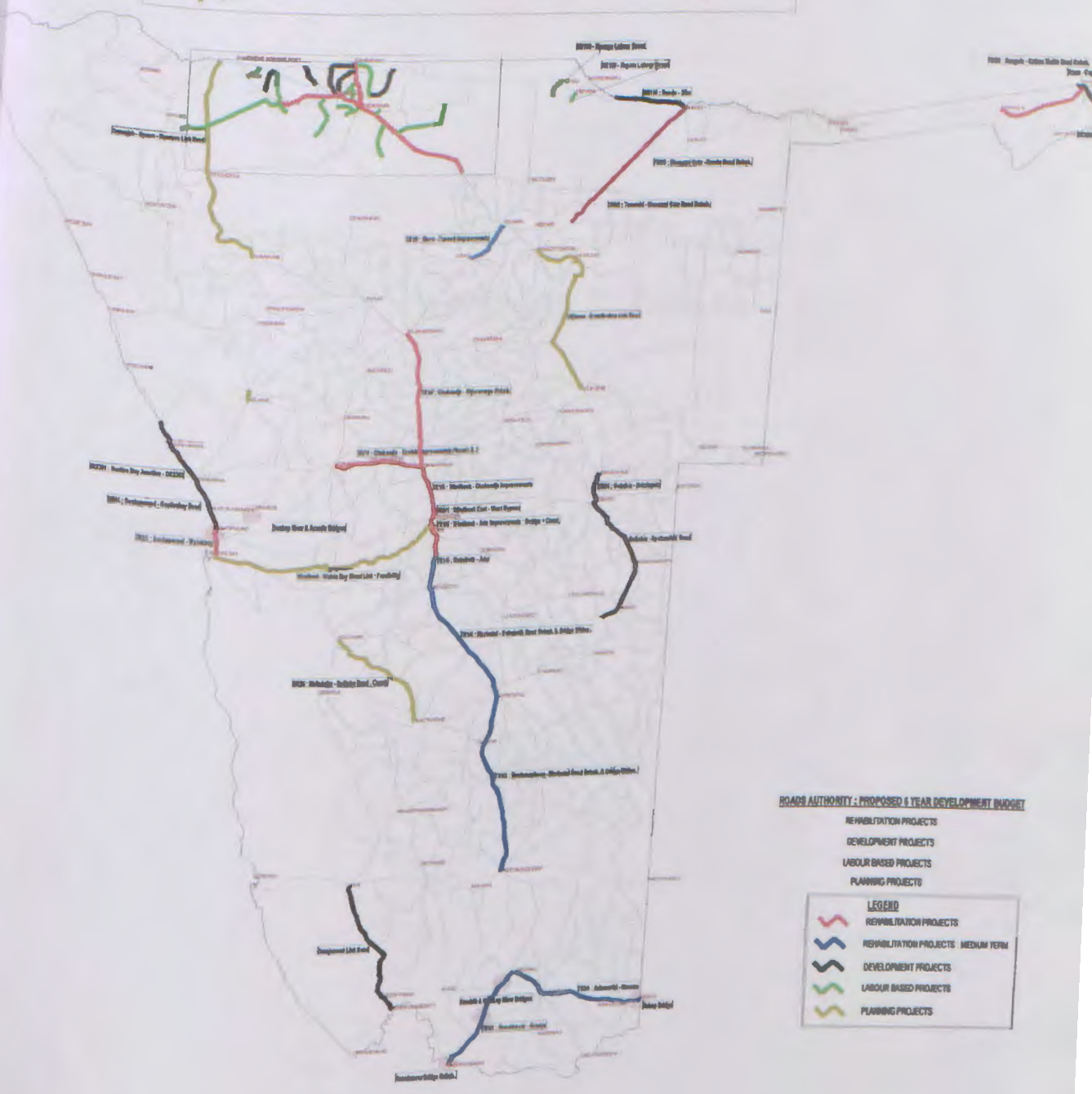
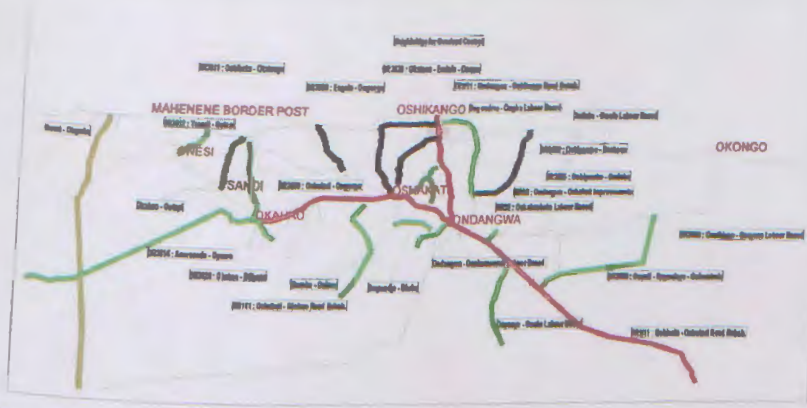
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**APPENDIX 1: MAP OF ROAD NETWORK AND
DEVELOPMENT**



ROADS AUTHORITY : PROPOSED 6 YEAR DEVELOPMENT BUDGET

- REHABILITATION PROJECTS
- DEVELOPMENT PROJECTS
- LABOUR BASED PROJECTS
- PLANNING PROJECTS

LEGEND

- REHABILITATION PROJECTS
- REHABILITATION PROJECTS MEDIUM TERM
- DEVELOPMENT PROJECTS
- LABOUR BASED PROJECTS
- PLANNING PROJECTS

APPENDIX 2: TABLES

Table 2: National Road Network explaining the road classification, and road lengths related to estimated traffic volumes (ADT) in 1997

Road class	ADT 1-200 km	ADT 201-1000 km	ADT 1001-2000 km	ADT >2000 km	Total Km
Trunk	484	2698	686	125	3993
Main	9198	360	35	2	9595
District	27220	15	0	0	27235
Total	36902	3073	721	127	40823

All road types

Road class	ADT 1 - 200 km	ADT 201-1000	ADT 1001-2000 km	ADT >2000 km	Total Km
Trunk	400	2400	686	125	3611
Main	1036	188	35	2	1261
District	73	15	0	0	88
Total	1509	2603	721	127	4960

Bitumen roads

Road class	ADT 1-20 km	ADT 21-50 km	ADT 51-100 km	ADT 101-200 km	ADT >200 km	Total Km
Trunk	0	0	67	17	298	382
Main	2076	4017	1524	545	172	8334
District	23668	2077	1015	387	0	27147
Total	25744	6094	2606	949	470	35863

Gravel roads*) (incl. 172 km salt and 7898 km earth roads).

*)N.B. The term 'gravel roads' used in this guideline also includes salt roads, non-engineered gravel roads and earth roads (tracks)

Source: NTMP (1998)

Table 3: The estimated value of the national road network (1998)

Road class	Road type	Km total	Reinvestment cost, average cost/km N\$	Total reinvestment value N\$ million
Trunk	Bitumen	3,611	850,000	3,069
	Gravel	382	250,000	96
Main	Bitumen	1,261	800,000	1,009
	Gravel	8,334	250,000	2,084
District	Bitumen	88	500,000	44
	Gravel	19,077	100,000	1,908
	Salt and Earth	8,070	50,000	404
Total		40,823		8,612

Source: NTMP (1998)

Table 4: Key objectives from various policy documents

SADC PROTOCOL ON TRANSPORT, COMMUNICATION AND METEOROLOGY 1996	NDP 1 1995 - 2000	NTMP 1998	LBW 1999	MWTC PROJECT 1995	2000
Establishing accountable national roads authorities representing public and private sectors	Reviving and sustaining economic growth	Providing safe, cost-effective, efficient transport services in different transport modes	Encouraging the substitution of labour for capital through the use of labour intensive methods for the provision and conservation of infrastructure	Separate core from non-core business in the MWTC	
Introducing commercial roads management practices	Creating employment	Redressing imbalances in the distribution of transport infrastructure	Ensuring government procurement procedures favour the use of local resources and employment generation	Staff reduction in the MWTC.	
Developing and implementing road funding policies	Reducing inequalities in income distribution	Providing efficient road construction and maintenance to minimize total road transport costs	Stimulating and supporting small state enterprises to employ labour-based technologies	Role definition and clarification of responsibilities	
Securing dedicated funding sources and applying user-pays principle progressively to recover full costs	Reducing poverty	Reducing economic regulation and promoting competition as a means to improve efficiency and to reduce costs to consumers		Commercialising services subject to cost recovery requirements through user charges system	
Promoting harmonized national and cross-border road user charging systems		Removing barriers to entry into road transport and improving road traffic safety controls		Accelerating human resource development in the MWTC to enhance capacity	
Introducing efficiencies and cost savings through contracting out		Developing and implementing systems of road user charges aimed at recovering the cost of providing and conserving the road network		Improving and managing policy formulation, administration and monitoring capabilities in the MWTC	
Defining and coordinating the development of the SADC Regional Trunk Road Network		Launching the MWTC 2000 Project to restructure the DOT and the transport sector		Managing intra-state networks between departments in the MWTC and its commercialized agencies	
		Improve road links with neighbouring states			

Table 5: Registered transporters in Namibia – (1997)

Region	Freight	Taxi	Busses
Khomas	449	1,169	226
Karas	50	67	20
Hardap	38	97	22
Omaheke	14	70	8
Erongo	170	128	93
Kunene	19	15	13
Caprivi	2	12	3
Okavango	6	24	1
Oshikoto	28	115	10
Oshana	11	284	13
Omusati	3	37	2
Ohangwena	9	56	6
Otjozondjupa	69	272	18
Total	±870	±2,350	440

Table 5: Shows the current number of registered transporters in Namibia, in terms of freight hauliers, taxi's and busses. About 87 heavy freight vehicles, about 2,350 taxi's and about 440 busses are currently registered as transporters in Namibia. The corresponding figures for 1995 were about 850, 2130, and 510. Figures do not include the high number of un-registered illegal taxis.

Source: NTDP (1997)

Table 6: Ends and Means of Road Sector Reform

Instruments	Public Sector Programmes	
	Savings	Augmented spending
Institutional Reform	I	II
Cutback Management	III	-

Type II focuses on institutional reforms with a view to increasing the resources for road services. In future, as perhaps the state deficits soar, the growing fiscal pressure may have the consequence that *Type III* becomes much more relevant, with regard both to allocative and redistributive objectives.

Source: Lane, 1993, revised by author

Table 7: Strategies and outcomes

Instruments	Public Sector Outcomes	
	Decrease	Increase
Decentralization	I	II
Privatization	III	IV
Deregulation	V	VI

Type II involves the transfer of tasks from central government to regional and local governments with intended or unintended outcome of expanding public services. The Namibian road sector reform adopted a different approach where central government tasks (from DOT) were transferred to public enterprises while the state owned the equity (Type IV). It is possible owing perhaps to the economic difficulties for *Type III* to become a relevant public policy. Central government functions are then hived off to the private sector proper.

Source: Lane, 1993, revised by author

Table 8: Number of Staff and Salary Scales in SATCC Countries, 1991-92

Country	Number of staff				Road Length (km)	Kilometer per staff ^{xxx}	Annual salary range (1992/93 US Dollars)
	Local	Expatriates ^x	Vacant	Total ^{xx}			
Botswana					8,328		
Engineers	6	15	15	36		231	8,076-18,811
Technicians	78	5	1	84		99	8,076-14,702
Lesotho					3,076		
Engineers	10	11	11	32		96	8,076-18,011
Technicians	24	0	2	26		118	8,076-14,702
Malawi					14,145		
Engineers	19	9	27	55		257	1,873-6,195
Technician	42	0	1	43		329	132-2,953
Mozambique					29,175		
Engineers	10	1	34	45		648	2,070-2,283
Technicians	35	0	78	113		258	869-1,781
Namibia					39,516		
Engineers	2	10	6	18		2,195	12,440-21,925
Technicians	16	1	16	33		1,197	9,415-21,925
Swaziland					2,800		
Engineers	3	1	1	5		560	8,746-10,383
Technicians	18	0	4	22		127	3,905-6,155
Tanzania					28,030		
Engineers	211	37	0	248		113	928-957
Technicians	270	0	0	270		104	n.a.
Zambia					20,783		
Engineers	1	6	24	31		670	481-820
Technicians	3	1	22	26		799	305-596
Zimbabwe					18,400		
Engineers	56	6	3	65		283	3,977-7,973
Technicians	65	0	0	65		283	3,850-7,196

^x Expatriates are foreign engineers paid international salaries by donors. Some come countries also recruit regional expatriates.

^{xx} Total refers to total number of approved posts.

^{xxx} Length of network divided by total approved posts.

Source: SATCC, (1993)

**APPENDIX 3: KEY INFORMANTS CONSULTED FOR
PRIMARY DATA**

Table 9: Key Informants consulted for primary data

Key Informant	Title
S T Hiveluah	Permanent Secretary – MWTC
R N Nakale	Deputy Permanent Secretary – MWTC
F W Poolman	Under Secretary – DOT: MWTC; MWTC 2000 Project Coordinator
J N Runji	Acting CEO – RA
C N Mvungi	Deputy Director – Engineering Services, DOT, MWTC 2000 Project Leader
Dr N Bruzelius	Transport Advisor/Consultant, MWTC
J M Dawe	SIDA/Swedish Embassy
G Larsson	SIDA/Swedish Embassy
G Seydack	Consultant
P Nevonga	Deputy General Secretary: Namibia Public Workers Union (NAPWU)
P N Ilonga	General Secretary: NAPWU
D Basson	Ministry of Finance
S Motinga	Ministry of Trade and Industry
E Ndiyepa	Deputy Permanent Secretary: Ministry of Regional, Local Government and Housing
I Murangi	Office of the Prime Minister
M Shipanga	CEO – City of Windhoek
B F Booyesen	Director – Maintenance, MWTC
G Reitz	MWTC 2000 Project Communications Consultant
T Mulunga	President – NABTA
G P Kamseb	Chairman – Roads Boards
M Shikongo	President – Namibia Chamber of Commerce and Industry
K Egumbo	Chairman – Namibia Transport Advisory Board
P Amunyela	Chairman – Road Transport Board of Namibia
J Walters	Chairman – Transportation Commission of Namibia
M Pottas	Chairperson – National Road Safety Council
Dr P Shipoh	CEO – TransNamib Limited
Adv. R Rukoro	Attorney – General – Republic of Namibia

APPENDIX 4: FOR FURTHER READING

Problems in conserving road networks

Recent publications by the World Bank and others have highlighted the problems faced by many countries in conserving their road network. Many countries have seen large investments in their road infrastructure eroded due to lack of adequate conservation. They are now faced with a choice of reconstructing large portions of their networks or down grading parts of the network to receive minimal doses of conservation. The World Bank reports show that reconstruction of damaged roads would cost US\$40 – 45 billion worldwide but could have been avoided by spending US\$ 12 billion in timely conservation. If this trend continues, the eventual costs of reconstruction would increase by two to three times with a consequent increase in vehicle operating costs several times more.

The reasons cited for this dispiriting state of affairs are the following:

- ☛ Almost without exception, roads are managed as public service,
- ☛ Many road networks have expanded beyond the size and standard countries can afford to conserve,
- ☛ Many road authorities are not directly affected by road deterioration and therefore do not come under direct or immediate pressure,
- ☛ Budget limitation, misallocation of funds and inadequate understanding of the importance of conservation, result in insufficient finance for road conservation,
- ☛ Road users continue to disregard the link between poor road conditions and higher vehicle operating costs, and seem to neglect to pressurize road authorities to keep up high standards in road maintenance.

It may be noted that in all countries, the stock of road vehicles will continue to increase as the standard of living rises. Forecasts made by Pemberton, quoted in the discussion paper of IRF, 2000, estimate that the number of vehicles in developing countries will rise from 216 million in year 2000 to 424 million in year 2015, i.e. an increase of 96% in 15 years. This means that the development of the road network must remain coherent with the vehicle stock.

Mismanagement of roads

The current standards of the road network, in relation to the traffic volume it accommodates, will be one major determinant for the enhancement of capacity in the road transport system in the future. Unfortunately, road conditions in developing countries leave much to be desired where. According to World Bank data, almost US\$ 13 billion worth of roads – one third of those built in the last 20 years - have deteriorated following mismanagement in and lack of conservation (WORLD BANK, 1994). Surveys carried out in Brazil found that, between 1979 and 1984, 6000 km of new paved roads were built while, in the same period, 2000 km of "good" roads deteriorated to "fair", and 6000 km of "fair" roads deteriorated to "poor" (HARRAL, 1988). In Chile, half of the main 3000 km north to south highway, which was paved in the early 1960s at great national sacrifice, collapsed in the 1970s and had to be rebuilt at enormous costs. It appears to be superfluous mentioning that commercial enterprises, wasting their capital assets in this manner, would soon be out of business, but it seems that government management principles adhering to unsustainable governance attitudes are more difficult to change.

Mismanagement of roads in Latin America is not confined to Brazil and Chile. In the whole of Latin America and the Caribbean region, deficiencies in the management and conservation of inter-city and rural roads is causing losses valued at a rate equivalent to US\$ 2 billion to US\$ 3 billion each year with a tendency towards even higher annual losses in the future. Additionally, this deterioration increases annual vehicle operating costs by similar amounts (UN-ECLAC, 1993). When a road is not conserved, and is allowed to deteriorate from good to poor condition, each US\$ cent saved on road conservation typically increases vehicle operating costs by two or three US\$ cent (EDI, 1993: 23).

In Africa, roads are even in worse shape. As a result of poor conservation, nearly a third of the US\$ 150 billion (this figure is calculated as the cost of replacing all existing roads at 1992 prices, excluding the bridges (ROSH, 1996)) invested in roads in Sub-Saharan Africa has been eroded (HEGGIE, 1995). In addition to the costs to the road system of poor conservation there are, as in Latin America, heavy additional costs to road users, which can be illustrated, by the annual cost to heavy trucks caused by potholes. According to the survey conducted by the Federation of Zambia Road Hauliers (February 1992 quoted

in Heggie, 1995), total annual costs attributable to potholes amount to US\$ 14 331 in Zambia. The survey ignores extra fuel consumption, damage to goods, down-time of trucks under repair, and accidents caused by potholes and sharp pavement edges. It is also estimated that extra costs due to insufficient conservation of roads in Sub-Saharan Africa amount to about US\$1,2 billion per annum, which is equivalent to 0,85% of the regional economic output (EDI, 1991:9).

National Transport Development Plan of Namibia

According to the 1997 National Transport Development Plan of Namibia (NTP), the road network in Namibia comprises about 40 000 km of trunk, main and district roads. Of the trunk, main and district roads, about 5000 km are bitumen-surfaced about 26 759 km are gravel surfaced, about 250 km are gypsum/salt roads, and the remaining approximately 8000 km are earth roads and tracks (April 1994 figures). In terms of its large landmass and small population. However, the well-developed infrastructure mainly serves the major areas of activity in the central and southern parts of the country. Road transport services in the rural northern parts of Namibia are limited, and current road construction priorities include the development of the road infrastructure in the northern areas, considering rural feeder roads and improving the road links with Angola, Botswana, Zambia and Zimbabwe. The extensive and widely developed road network of Namibia is relatively conserved, in comparison to other SADC countries (NATIONAL TRANSPORT PLAN REPORT 1997).

Many of the paved roads are older than 20 years, and several even over 30 years old, all of them showing increasing signs of deterioration. The NTP report inclines that 30 – 40% of the roads will require major repaving rehabilitation in the near 5-10 years. According to the National Transportation Master Plan study, Volume 2:1998, of the roughly 5000 km of the bitumen roads in the country, 2950 km were completed more than 20 years ago. About 1200 km of these are more than 30 years old. The life of roads is subject to a cycle of construction, deterioration, collapse and reconstruction. Lack of road conservation very greatly speed up this cycle. This contributes to the loss in road asset value. Visual defects in the road network over the last five years in Namibia appear to confirm the opinion that the government would not be spending enough to adequately maintain the country's road assets in the short term to medium term.

Since the early 1990's there has been a gradual acceptance that, rather than simply building new roads, new policies to manage and conserve the existing roads will be needed. Although new roads will continue to be built, there appears to be growing backlog of maintenance on roads. It is thus necessary to tackle the two underlying causes, namely the present financial and institutional systems of road provision and conservation. This research paper is attempting to highlight some crucial aspects relating to the Namibian reform in the governance of the road (transport) infrastructure.

Nature of goods

For instance, **private goods** such as food, cosmetics or houses pose no problem of supply. The market place provides them, as consumers demand them. **Common – Pool goods**, such as game, fish or minerals, do pose a supply problem. Market mechanisms fail to assure a continued supply of common – pool goods. Other forms of collective or cooperative actions are required. Unlike common – pool goods, **toll goods** can be supplied by the market place. This is true of communication networks, cable television and utilities such as electricity, water supply or transport service. As exclusion is readily possible, users will pay and, therefore, suppliers will supply the goods, theoretically in the quantity and quality demanded by users. It is **collective goods**, however, that pose the most serious problem in the organization of society. The market place is unable to supply such goods because, by nature, they are used simultaneously by many people and no one can be excluded from enjoying them. Such is the case with national defense, police protection, firefighting and national parks. As there is little choice by a consumer in using the good, he or she must accept the good in the quantity and quality available. In this case one must rely on a political process to decide how much each user must pay, and whether or not some users should receive a discount.

