

## CHAPTER 8

### WORKS, TRANSPORT AND COMMUNICATIONS

#### INTRODUCTION

8.1 Government recognises that efficient public works, transport and communications services are essential to achieve the socio-economic development objectives enshrined in Vision 2016. Transport and communications are the driving force behind any modern economy. As Botswana aspires to be an international financial services centre in the Southern African sub-region, appropriate investments have to be made in the transport and communications infrastructure to facilitate movement of goods, persons, services and information within and beyond the borders of Botswana. At present, the country is served by a modern transport and communications network capable of supporting and sustaining various social, economic and investment policies and programmes of the Government.

8.2 Public works and transport infrastructure is mainly provided and maintained by the Ministry of Works and Transport, while communications are the responsibility of the newly created Ministry of Communications, Science and Technology. Works infrastructure consists of buildings and their associated services engineering service for office accommodation of public institutions. Transport includes roads, railways, and air services. Communications under this sector consists of postal and telecommunications services. On the other hand, the Ministry of Environment, Wildlife and Tourism is responsible for the development and provision of Meteorological services, which are essential especially for sectors such as

agriculture and aviation. Extensive coverage of meteorological services in the country in terms of weather data collection and forecasting will be undertaken through allocation of sufficient financial and human resources.

8.3 A number of projects covering the sub-sectors of public works, transport and communications are outlined in Section IV to address key development objectives of the sector. In formulating projects and programmes under the Plan, six Key Result Areas identified during the strategic planning were taken into consideration to ensure that the sector contributes its fair share in meeting the Vision 2016 aspirations. These Key Result Areas are:

- Safe, secure, accessible, reliable and environmentally friendly sound infrastructure;
- Use of up-to-date technologies;
- Financial management and accountability;
- Transparency in delivery of service;
- Delivery of products and services within set time and budget; and
- Well trained workforce.

8.4 Whilst the PMS exercise did not cover the parastatals under the sector, they too are expected to embrace the PMS strategy in carrying out their mandates. Hence, most of them are carrying out or have already carried out some restructuring to enhance both operational and financial performance.

8.5 Government does recognise that HIV/AIDS presents a special challenge

that could stifle development efforts. As a result, the sector is in the process of developing a comprehensive HIV/AIDS strategy to address the scourge, with particular focus on the workforce in the transport and public works sectors, to ensure that spouses are not separated for extended periods of time and encourage unsafe sexual behaviour.

## **REVIEW OF WORKS, TRANSPORT AND COMMUNICATIONS DURING NDP 8**

### **WORKS**

8.6 The construction industry is undergoing considerable growth mainly stimulated by implementation of a large number of Government projects. However, the works sector has been constrained by lack of implementation capacity. A number of initiatives, which will continue to be pursued during NDP 9, have been undertaken to improve the efficiency, quality and service delivery in the sector. These include:

- There has been a realisation that the activities and functions of both DEMS and DABS are intertwined but these are too difficult to co-ordinate under the current structural arrangement of their operating as separate entities. In recognition of their providing common and complementary activities these departments are to be merged to improve on their service delivery, co-ordination and project implementation in the execution of Government building infrastructure development projects;
- Review of contractual documents to conform to current best practices in the construction industry;
- Other viable and alternative procurement methods would be explored in an effort to find more efficient and

effective implementation strategies. Typical of one such approach would be the Public-Private Sector Partnership (PPP) which has variants such as Build- Operate-Transfer (BOT), Build-Operate-Lease Transfer (BOLT) etc which are increasingly becoming attractive worldwide; and

- A comprehensive review of human resources development strategy to ensure that present and future staffing needs are met as well as to identify areas of private sector involvement in the delivery of Government projects.

### **Architecture and Building Services and Electrical and Mechanical Services**

8.7 The Department of Architecture and Building Services (DABS) and the Department of Mechanical and Electrical Services (DEMS) are responsible for the implementation of all Central Government building projects, including the maintenance of these facilities through regional depots located at all major centres in Botswana.

8.8 A significant increase in Government's development programme has led to consistent growth in the construction industry. These projects have contributed to the development of the private sector as the Departments continue to utilise consultants and contractors for project implementation. Through the reservation policy for citizen contractors, and consultants Government promotes and encourages citizen economic empowerment and entrepreneurial development.

8.9 The Departments have achieved success in the implementation of some large-scale projects during NPD 8. However, there were a number of problems identified some of which are as follows:

- Too much front-loading of projects at the beginning of the Plan period.
- Lack of well-defined client briefs (requirements).
- Slow provision of information by Client Ministries/ Departments.
- Unclear contracts which were open to a variety of interpretations.
- Inadequate vetting, supervision and monitoring of consultants.
- Lack of formalised consultancy contract agreements with clearly spelt out penalty clauses.
- Lack of skilled and trained manpower to execute maintenance of building infrastructure and equipment.
- Under-provision of maintenance requirements as a result of poor linkage of integrating the recurrent maintenance expenditure to capital expenditure.
- Minimal application of computer technology to work practices.
- Frequent abandonment of projects by contractors.

8.10 In an effort to assist in resolving some of these problems, independent studies for the two departments were commissioned during NDP 8 namely:

- DEMS Operational Efficiency Improvement Program Study, and
- DABS Organisation Capacity Assessment

The recommendations of the two studies have been taken on board during the restructuring and merging of the two departments.

## **TRANSPORT**

8.11 Surface transport in Botswana plays a vital role, particularly as the country is land-locked. However, inadequate capacity in the economy has been a serious constraint in the development and maintenance of the transport infrastructure.

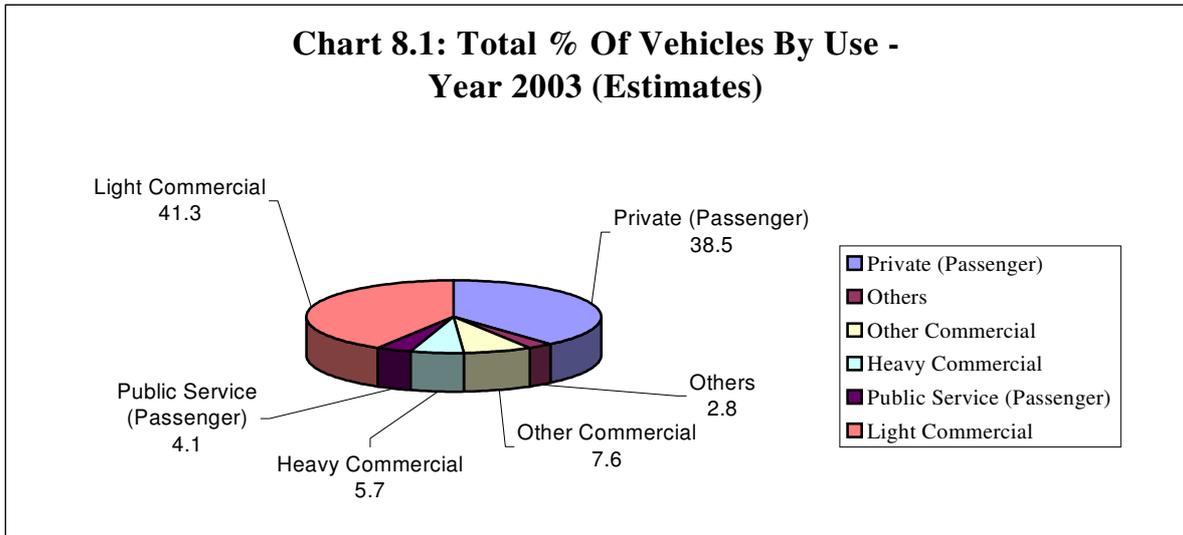
8.12 Vision 2016 has identified road safety as one of the priority areas in the quest to build a "safe and secure nation" and identifies effective enforcement of traffic law, road safety education, better training and licensing, elimination of drunken driving etc, as the priority areas for policy intervention. While continuing with the ongoing Road Safety programme, a National Road Safety Strategic Plan will be formulated to deal with road safety problems in a holistic manner.

### **Road Transport**

8.13 During NDP 8, the focus of the road transport sector was on four main strategic issues: conveyance of goods and passenger mobility, consumer protection and security, road safety, and customer service and satisfaction.

8.14 The vehicle population continued to increase during the NDP 8 in line with the socio-economic development of the country. The total vehicle population increased from 87,852 in 1997/98 to an estimated 206,386 in 2002/2003. The private passenger vehicles constitute about 38.5%; public passenger vehicles 4.1%, light commercial vehicles 41.3% and heavy commercial vehicles constitute 5.7% of the total vehicle fleet. The low percentage of heavy goods vehicles reveals the country's inadequate capacity and further explains the influx of foreign

registered trucks. This also means a loss of the potential for job creation by the domestic road transport sector. The Chart 8.1 shows vehicles by use in the national fleet.



**Source: Ministry of Works and Transport**

8.15 The public passenger transport system is largely based on regulated competition. Through this policy, local and

long-distance passenger transport services improved considerably in terms of numbers, quality and frequency during the Plan period. See tables 8.1 and 8.2.

**Table 8.1: Passenger Transport Permits (P-Permits)  
By Year 1997-2001**

	1996	1997	1998	1999	2000	2001	Total
	A. Taxis (excluding mini-buses and buses)	1,195	1,233	1,023	1,758	1,882	2,111
B. Total (including taxis, mini-buses and buses)	2,752	2,995	2,602	5,213	5,809	6,016	25,387

Source: Ministry of Works and Transport

**Table 8.2: Freight Transport Permits ("BA-Permits")  
By Year 1997-2001**

Year	LDVs upto 1500kg	Trucks 1501-5000kg	Trucks 5001-10000kg	Trucks 10000kg+	Heavy Duty 10000	Tractors	Trailers	Horses and Tankers	Others	Total
1996	26	553	996	134	61	1,109	518	152		3,549
1997	16	531	908	92	48	976	398	283		3,252
1998	110	529	978	1,177	118	2,331	499	208		3,950
1999	159	563	1,078	1,216	330	3,194	711	156		7,407
2000	126	612	1,081	1,540	167	3,106	546	173		7,351
2001	415	1,059	1,558	1,908	205	4,807	1,153	828		11,933
Total	-	-	-	-	-	-	-	-	-	33,893

Source: Ministry of Works and Transport

### **Personalised Passenger Services**

8.16 During NDP 8, personalised passenger transport such as call-cab, car-hire witnessed considerable growth in response to the growth in trade and tourism within Botswana and the SADC region. At the end of NDP 8, registered call-cab and car-hire vehicles stood at 119 and 453, respectively.

### **Cross-border Transport Agreements**

8.17 Bilateral road transport agreements were initiated and concluded with Zambia and Zimbabwe towards the end of NDP 8, with a view to facilitating an unimpeded flow of goods and passengers.

### **Computerisation**

8.18 During NDP 8, computerisation of driver licensing and vehicle licensing has considerably increased customer service and reduced forgery and fraud.

8.19 A comprehensive review and computerisation of the road transport permits system, which was earmarked to be executed as an integral part of the Vehicle Registration and Licensing (VRL) System, is a project carried over from NDP 8.

8.20 The low level of traffic discipline on Botswana roads is of grave concern. Two major causes of accidents have been identified as over-speeding and drunken driving. The high rate of pedestrian involvement in road accident fatalities (30%) is of even greater concern.

### **Review of the Road Traffic Act**

8.21 Work on the review of the Road Traffic Act was completed at the end of NDP 8. Among other things, the review covered issues relating to harmonisation consistent with the SADC Protocol on Transport, Communication and Meteorology.

### **Vehicle Roadworthiness Testing**

8.22 During NDP 8, two of the five planned Vehicle Testing Stations (VTSs) were built and equipped at Lobatse and Palapye.

### **Improvements in Driver Training and Testing**

8.23 Out of the nine (9) planned driver training and testing facilities only four (4) facilities were completed at Lobatse, Mahalapye, Serowe and Palapye during NDP 8. The slow implementation was due to the delay in land allocation, inadequate funding, and lack of capacity within the service departments.

### **Railways**

8.24 Botswana Railways (BR) is responsible for the provision of local and regional rail transport. Botswana Railways forms a crucial link in the regional railways system of the Southern African region. Through links with Spoornet of South Africa and the National Railways of Zimbabwe, BR provides a connection to Namibia, Swaziland, Zambia, the Democratic Republic of Congo, Angola, Mozambique, Tanzania and Malawi.

8.25 NDP 8 was a challenging period for BR. The organisation successfully completed the rehabilitation of its 641-km track from the border with South Africa to

the border with Zimbabwe in March 2001. The result of this rehabilitated mainline is that trains can now move faster with increased safety en-route and provide a smooth ride.

8.26 In 1995/96, BR undertook a staff rationalisation exercise that resulted in a reduction of departments from nine to five and the number of staff from 1,795 to 1,263. This improved the organisation's profitability from a net loss of P3.05m in 1995/96 to a net surplus of P0.5m in 1996/97. A subsequent systems audit carried out in 2001/2002 further reduced the departments to four, and staff to 1,220.

8.27 Botswana Railways also successfully completed the signalling system between Rakhuna and Ramatlabama, the hydrological study and relocation of Gabcon (Gaborone dry port).

8.28 Notwithstanding these achievements, BR experienced major setbacks in transit traffic when the Bulawayo-Beitbridge route in Zimbabwe opened to traffic in July 1999. This resulted in a decrease in the average transit traffic from 100,000 tonnes per month to less than 10,000 tonnes per month. Transit traffic was critical to BR's revenue generation.

## **Road Infrastructure**

8.29 NDP 8 provided a well developed and integrated road network to all towns and main District centres, as well as adequate connections to neighbouring countries. The completion of a strategic ring road around the country from which feeder roads will radiate to various rural communities was a remarkable achievement.

8.30 The access roads policy, which stipulates that all settlements and villages within 10 kilometres of major roads should be provided with an access road to the main kgotla at a time when the major road is either being upgraded or reconstructed, resulted in over 390 km of access roads constructed during NDP 8. The completed access roads were handed over to the respective Local Authorities for maintenance.

8.31 NDP 8 experienced the biggest road construction programme hitherto undertaken by Government. By the end of 2002, out of the 8,761 km of national roads for which the Department of Roads is responsible, 6,872 km were bituminised. Of the bituminised roads, 1,952 km was constructed during NDP 8, which included 18 river crossings (Table 8.3).

8.32 Project implementation during NDP 8 was beset with severe capacity constraints, both within the Department of Roads and in the private sector. The NDP 8 Mid-term review, like that of NDP 7, concluded that the road construction programme was progressing at a pace below expectation.

8.33 Costs in the construction industry escalated since the commencement of NDP 8, as tendering for construction projects became less competitive. From P450,000/km at the beginning of NDP 8, the construction costs increased to between P850,000 – P1,300,000/km for a two-lane road, while dual carriageways ranged between P2,500,000 and P 4,500,000/km. Thus, some projects had to be deferred to NDP 9 due to lack of funds.

**Table 8.3: Completed NDP 8 Projects**

<b>Projects</b>	<b>Length (Km)</b>	
	<b>Main Road</b>	<b>Access Road</b>
Molepolole-Lephepe	131.00	17.00
Bobonong-Semolale	55.00	9.00
Lephephe-Shoshong	89.00	12.00
Serule-S/Phikwe	54.00	7.00
Mahalapye-Palapye	71.00	17.00
Serule-Tonota	65.00	13.00
Sebina-Tutume	50.00	26.00
Jwaneng-Sekoma	84.00	0.00
F/Town-Centenary Bridge	1.00	0.00
Kudumatse Drive Dualling	10.00	0.00
Airport Cycle-Rasesa Section I	18.00	0.00
Sefhophe-Zanzibar	73.00	3.00
Mahalapye Dualling	5.00	0.00
Francistown-Matsiloje	43.00	3.00
Lobatse-Mmathethe	39.00	11.00
Kasane-Ngoma	75.00	0.00
Nata-Kazungula	45.00	0.00
Mahalapye-Machaneng	71.00	2.00
Mahalapye-Sherwood	49.00	0.00
Palapye-Martin' s Drift	81.00	0.00
Machaneng Access Roads	0.00	78.00
Tswapong Access Roads A	0.00	90.00
Dikabeya-Kgagodi	37.00	6.00
Tswapong Access Roads B	0.00	45.00
Boatle-Molepolole	55.00	16.00
Metsimotlhabe-Lentsweletau	45.00	27.00
Rakops-Kumaga	70.00	4.00
Kumaga-Motopi	59.00	14.00
Ghanzi-Sehitwa	187.00	0.00
	<b>1,562.00</b>	<b>390.00</b>
<b>TOTAL</b>	<b>1,952</b>	

**Source: Ministry of Works and Transport**

8.34 Government undertook an institutional study of the roads sub-sector during NDP 8 to investigate the possibility of entering into partnership with the private sector concerning investment in road construction-related projects. The study recommended the separation of the regulatory, management and execution

roles, whereby the public road agencies will retain supervision and monitoring functions. The study further recommended that the Department be restructured to become a Road Authority with a board of governors and establishment of a Road Fund. The study recommendations have been deferred pending further consultation.

8.35 During NDP 8, the Ministry of Works and Transport commissioned a Domestic Road User Charging System Study that aimed at developing a strategy for cost recovery in the roads sector. As a result, incremental increases of the road user charges are being implemented. The study acknowledged that the current road user charges were not in line with the cost of road maintenance.

### **Civil Aviation**

8.36 With the modernisation of the air traffic control system in 2001, and other navigational facilities at SSKA, Maun, Kasane and Francistown airports, the country has provided international standards for an efficient, secure and reliable air transport service. Scheduled air transportation is provided by Air Botswana and other competing designated airlines such as South African Express and Air Namibia. The domestic market is serviced solely by Air Botswana, augmented by charter services, particularly to areas where Air Botswana does not operate. There has been a steady growth in air traffic. Passenger traffic increased from 347,396 in 1996 to 462,029 in 2000 and the aircraft movements from 52,544 to 69,835 during the same period, reflecting an average annual growth of 6.6% and 6.5% respectively. This growth necessitates further development of airports in the country.

8.37 Since the launch of NDP 8, Government has undertaken some deregulation initiatives with a view to reducing constraints on market forces. The Air Transport Policy approved by Cabinet during NDP 8, aims to further liberalise civil aviation sector and improve market access. Before NDP 8, nearly all air transport was subject to regulation.

During NDP 8, decisions covering entry, exit, pricing and quality of service have been gradually turned over to carriers and market forces applied. In most cases, deregulation has created conditions more conducive to industry performance, but in some instances, it has led to limited service availability in rural areas.

8.38 In line with the policy on cost recovery, the En-route Navigation Charges Regulations were promulgated on 15 July, 1999. The purpose is to levy a charge on all flights using Botswana airspace. An agreement was made with the International Air Transport Association (IATA) based in Geneva, Switzerland, to collect the amount from member airlines on behalf of Botswana.

8.39 The air traffic control system was modernised in 2001 with the installation of state-of-the-art primary and secondary surveillance radars at Sir Seretse Khama Airport (SSKA) and a secondary surveillance radar at Maun airport, thereby improving flight safety. Additional Very High Frequency (VHF) automated relay stations have been provided to extend the VHF coverage for air traffic control within Gaborone Flight Information Region (FIR), thus adding another safety factor for the more than 80,000 international flights which traverse the Botswana airspace annually.

8.40 Based on a study undertaken in 1998/99 with the assistance of the International Civil Aviation Organisation (ICAO), Government has decided to transform the Department of Civil Aviation into a parastatal to be called the Civil Aviation Authority. As part of the reform initiatives, a draft Air Transport Policy was formulated and approved by Cabinet in 1999. Another feasibility study for the establishment of a National Civil Aviation Training Institute (NTI) was

carried out in 1999. Recommendations of the study are being examined by the Ministry of Works and Transport in line with the feasibility of establishing a training institute for the entire transport sector. The Department of Civil Aviation also undertook a feasibility study for the upgrading of five airports (Maun, Kasane, Selebi-Phikwe, Francistown and Shakawe) for the operation of a B737 or equivalent class of aircraft in February 2002.

8.41 Other consultancies carried out include the detailed design of the extension of the SSKA terminal building to handle 570,000 passengers per annum, and a new cargo terminal building to handle 4,000 tonnes per annum.

8.42 Additional projects undertaken during NDP 8 included:

- detailed design of the Francistown and Selebi Phikwe airport improvements, and construction of light aircraft hangars and taxiways at Maun and Kasane airports,
- environmental impact assessment studies at new sites for the relocation of Ghanzi airport and Serowe - Palapye airfields, and
- provision of bitumen surfaced runways and terminal sheds at Shakawe and Gumare airfields.

## **Air Botswana**

8.43 As part of the restructuring programme during NDP 8, Air Botswana re-defined its strategy from being a SADC airline to that of a regional feeder operator within a market niche. The airline, therefore, concentrated on feeding traffic into Johannesburg, Harare and Windhoek and discontinued most of the regional routes which were not profitable.

8.44 This change in strategy led the airline to concentrate on using cheaper regional Turbo-propeller aircraft that contributed significantly to the lowering of its operating costs. This was key to the airline's success during NDP 8. The airline concentrated on growing through frequencies and consolidating the few viable routes from Gaborone, Johannesburg, Maun, Harare and Victoria Falls.

8.45 Air Botswana's privatisation project commenced in April 2000 and was planned for completion during NDP 8. The first phase, which focused on the review of the regulatory framework and strategic options, was completed in time by August 2001. However, in light of the depressed international air transport market following the 11 September 2001 incidents in the United States of America, the implementation phase was suspended. The privatisation exercise was resuscitated in September 2002 and is expected to be concluded during 2003. The later part of NDP 8 was dedicated to completing various structural reforms that created an enabling environment for the project.

## **Central Transport Organisation**

8.46 The Central Transport Organisation (CTO) provides vehicles to Ministries and Departments in order to ensure that Government's transport needs are met effectively.

8.47 During the NDP 8 period, additional workshop facilities, including the Police Vehicle Workshop, independent pool workshop in Gaborone and light aid workshop detachments at Lonetree and Kang were established. In addition to improving the workshop facilities, several activities such as repair and servicing of

vehicles were hived-off to the private sector.

8.48 In an attempt to rationalise and control the expansion of the Government fleet, a Transport Establishment Review Committee (TERC) which is a sub-committee to the Estimates Committee became operational in July 2000 to monitor the utilisation of the existing allocated vehicles, consider and make recommendations on requests for additional fleet expansion by ministries

and departments. Since its coming into operation, this committee has successfully managed to withdraw under-utilised vehicles, reallocated under-utilised vehicles to needy Ministries and Departments, and curtailed fleet expansion requests.

8.49 Currently, the CTO vehicle fleet is 8 809, an increase of 609 (or 7%) since the beginning of NDP 8 (see table 8.4).

**Table 8.4 : Government Fleet Statistics 1993/94 - 2001/02**

	Registered			Boarded			Fleet Size		
	Vehicles	Plant	Total	Vehicles	Plant	Total	Vehicles	Plant	Total
1993/94	1,093	75	<b>1,168</b>	934	18	<b>952</b>	6,109	865	<b>6,974</b>
1994/95	898	51	<b>949</b>	613	25	<b>638</b>	6,394	891	<b>7,285</b>
1995/96	1,262	52	<b>1,314</b>	729	10	<b>739</b>	6,927	933	<b>7,860</b>
1996/97	1,364	90	<b>1,454</b>	1,175	10	<b>1,185</b>	7,116	1,013	<b>8,129</b>
1997/98	1,291	68	<b>1,359</b>	1,249	39	<b>1,288</b>	7,158	1,042	<b>8,200</b>
1998/99	912	59	<b>971</b>	1,259	166	<b>1,425</b>	6,811	935	<b>7,746</b>
1999/00	1,127	41	<b>1,168</b>	770	54	<b>824</b>	7,168	922	<b>8,090</b>
2000/01	931	70	<b>1,001</b>	688	52	<b>740</b>	7,411	940	<b>8,351</b>
2001/02	1,618	51	<b>1,669</b>	1,174	37	<b>1,211</b>	7,855	954	<b>8,809</b>

**Source: Ministry of Works and Transport**

8.50 The CTO charging system, which started in 1998 following recommendations of the Restructuring and Commercialisation exercise, is achieving its objective to some extent as the majority of user Ministries and Departments have become more vigilant in controlling their transport operations and expenditure.

8.51 Although the Department engaged the services of the private sector, their performance has been far from being satisfactory. Numerous problems have been experienced such as over-invoicing, poor quality of service, delays in carrying out repairs, etc.

## **COMMUNICATIONS**

### **Liberalised Telecommunications Policy**

8.52 In pursuance of liberal economic policies and in line with international trends in the telecommunications industry, Government adopted the Telecommunications Policy in December 1995. The main objectives of the policy are to achieve universal service, promote private sector participation in the development of the industry, and liberalise the industry. There have been tremendous changes in the telecommunications industry since the adoption of the Policy. These changes include an increase in teledensity, availability of modern Information and Communication Technologies (ICTs) and services. Further, penetration of ICTs, especially in rural areas, is essential to accelerate the pace of development to achieve rapid integration of the country with the global economy.

8.53 Telecommunications services play a vital role in sustained economic and social development. The Telecommunications Act, No. 15 of 1996, which established the Botswana Telecommunications Authority (BTA), will, among other things, monitor and promote the provision of efficient telecommunications services. The Act abolished the BTC's monopoly over network operations, issuing of licences and transferred telecommunications regulatory functions to BTA. As part of the liberalisation strategy two mobile telephone licences were issued in 1998 followed by licensing of internet service providers and various value added services.

#### **Frequency Spectrum Management**

8.54 BTA is currently considering the acquisition of an automated frequency management system and the review of the radio spectrum licence fees. The purpose is to ensure the continued availability of the radio spectrum. The radio spectrum is a natural finite resource equally available in every country. Its effective management is the key to providing an environment in which radio can contribute to national competitiveness, as well as to cultural, scientific and social life. In October 2000, BTA commissioned a project to develop a National Radio Frequency Plan as required by the Act. The project is expected to be completed by 2004.

8.55 The Botswana Telecommunication Corporation (BTC) played a crucial role in the liberalisation of the telecommunications industry in the country. Through the BTC network, cellular and other licensed operators have been able to roll out their networks and services quickly.

8.56 NDP 8 was a challenging period for BTC. The Corporation initially achieved all time high profits of P74 million in 1998/1999. However, it later experienced decline in profitability and overall operational performance. The decline in profitability emanated from the Customer Care and Billing System (CCBS) crisis which culminated in accumulated bills, resulting in provision for doubtful debts. The core national network comprising telephone exchanges and transmission systems, which was understood to be world class standard, has not been upgraded in recent years and is performing sub-optimally.

#### **Fixed Network Services**

8.57 BTC's customer base increased from 80,000 in 1998 to 138,000 in December 2001, representing teledensity increase from 5.5% to 9%. The Corporation introduced new services such as voice-mail, paging, toll-free calling, global pre-paid calling, various value-added services and the 'wireless fast connect' technology.

#### **Numbering Plan**

8.58 BTC, in collaboration with BTA, successfully rolled out the implementation of the Number Change from six digits to seven digits in 2002.

## **Rural Telecommunication Programme**

8.59 During NDP 8, BTC managed to complete Government funded projects in the Barolong, Bobirwa and Tswapong sub-Districts, covering a total of 52 villages at a cost of P83 million. Another rural telecommunication project for North East, Barolong/Ngwaketse and Kweneng Districts, covering 147 villages at a cost of P125 million, commenced in 2002.

## **Postal Services**

8.60 BotswanaPost implemented various projects under NDP 8, at the time the organisation was going commercial. These activities included putting in place new legal structures, establishment of a management structure and installation of production management systems. This resulted in an increase in mail delivery performance from 86% in 2000-2001 to 93% during the financial 2001-2002 against a target of 95%. Other projects that were undertaken were the establishment of mail sorting centres at Gaborone, Palapye and Francistown, construction of staff houses in Tsabong, expansion of Maun Post Office and the establishment of a post office at the Riverwalk shopping mall in Gaborone. Twenty thousand postal boxes were installed at various post offices. NDP 8 also witnessed the automation of some post office counters, and expansion of two sorting centres at Palapye and Francistown.

8.61 BotswanaPost is committed to the provision of a universal postal service to all at an affordable price. The critical problem is the stiff competition currently experienced as a result of the private sector entering the postal market.

## **Meteorological Services**

8.62 During the Mid-Term Review of NDP 8, it was observed that the current weather systems manifest themselves in complex patterns, resulting in severe droughts and floods.

8.63 For the Department of Meteorological Services to provide sufficient meteorological data and information necessary for the socio-economic development of a country the size of Botswana, a minimum of 25 synoptic and 1000 rainfall stations are required. To-date, there are only 14 synoptic stations and 400 rainfall stations. Government has decided to invest in an expanded network of synoptic stations and other specialised stations to collect sufficient data, fill the existing gaps and improve on the prediction of weather conditions, climate patterns and their severity.

8.64 Synoptic stations at Pandamatenga, Selebi-Phikwe, Werda and Goodhope as well as Meteorological Headquarters and Bokaa weather radar buildings have been completed.

## **WORKS, TRANSPORT AND COMMUNICATIONS POLICY FOR NDP 9**

### **WORKS**

#### **Architectural and Building Services and Mechanical and Electrical Services**

8.65 It is imperative that the problems identified during NDP 8, in respect of these organisations, do not spill over into NDP 9. In responding to this concern, the Departments have begun to change the approach and methodology and their own

roles in the process of delivering final building projects to client Ministries/Departments. This is with a view to attaining the elusive project success as measured by clients as completion within cost, within time and to an acceptable quality level.

8.66 Dedicated teams to carry out projects for individual Ministries will be set up to ensure better service delivery and accountability for project implementation.

8.67 A project implementation document has been devised to assist in determining client requirements, which could be formulated into a design brief. This would ensure that tender documents are complete before going out to tender.

8.68 In an effort to bring the departments closer to client Ministries, Ministerial Projects Implementation Units are to be established within Ministries, which would be under the direction of the Department. Initially, these units would be within Ministries with large portfolio of projects and it is hoped that by the end of NDP 9 all ministries would have Ministerial Projects Implementing Units. Specific functions of these units would include assisting to determine the client requirement, acting as liaison between the Ministries and the Department in the implementation of projects up to an initial value of P2 million, and managing and co-ordinating maintenance programs.

8.69 In order to augment the existing staff compliment, which has been a source of concern for some time, the Department has acquired additional staff through the resuscitation of the Project Implementation Unit (PIU), which had been established during the early part of NDP 8. However, unlike the old PIU, which was an independent and stand alone unit, the new staff would be integrated into the

Department structures to augment their implementation capacity.

8.70 To address the issue of accountability on the part of consultants, a new agreement with penalty clauses for non-delivery and professional negligence would be entered into by consultant and the departments. It is also hoped that the coming into being of the new procurement act would address problems, which are encountered in the Department's construction contracts.

8.71 The engineer's registration act, which has been approved by Parliament, calls for the establishment of an Engineer's Registration Board to regulate the conduct of the professional engineers. Similar boards should be established during NDP 9 for the architectural and quantity surveying professionals. The coming into being of these boards will ensure that consultants provide suitably qualified, competent and experienced professionals.

8.72 During NDP 8, a start was made to devolve some minor maintenance to facility level and it is now intended that routine and possibly call maintenance should be out-sourced wherever possible. To further overcome problems of under provision for maintenance, full maintenance budgeting would, on an annual basis, be done by the Ministries themselves. It is, therefore, conceivable that during NDP 9, responsibilities for undertaking property and facilities management in their entirety could be devolved to Ministries, albeit in a gradual and phased manner.

8.73 During NDP 9, there will be the necessary information technology support for the work undertaken by the departments in keeping with the current best practices. This is in recognition of

routine design and maintenance task now employing information technology as a standard practice, more so that the current training of professional personnel assumes the availability and application of such technology.

## **TRANSPORT**

### **Road Transport**

8.74 The focus during NDP 9 will continue to be based on the four main strategic issues: conveyance of goods and passenger mobility, consumer protection and security, road safety and customer service satisfaction.

8.75 Competition will continue to be precluded on routes or networks that require subsidy for welfare reasons, mainly in the remote rural areas. Similarly, permission for minibuses to ply long-distance routes will be discouraged, whilst buses with 25 seats and above will be encouraged via the permit system. Further improvements in the personalised passenger transport will be made through the introduction of metered taxi services and increase in the number of call-cab operations where demand exists.

### **Road Transport Infrastructure**

8.76 Road transport authorities will actively participate with local and other authorities in broader policy decisions and plans, which affect the effective provision of road transport services. Land use and road planning will take into account requirements regarding public passenger transport, pedestrians and bicycles along roads and the need for rest places along primary roads. In addition, the road authorities will initiate and institutionalise periodic quality audits of the road network under their control to reduce accidents.

### **Institutional Capacity Building**

8.77 Two major tasks envisaged to be undertaken during NDP 9 are the development of a National Integrated Transport Policy and an institutional capacity review to evaluate the operations and structure of the Department of Road Transport and Safety.

### **Road Safety**

8.78 A National Road Safety Strategic Plan to address road safety problems in a holistic manner will be formulated in consultation with other stakeholders.

8.79 During NDP 9, priority will be given to traffic management and road safety in the quest to build a “safe and secure nation” in line with the principles of Vision 2016. This will be done through better traffic law enforcement, road safety education, better training and licensing, reduction in drunken driving etc., as the priority areas for policy intervention. In order to effectively reduce the drinking-driving problem, consideration will be given to imposing more rigorous alcohol tests through enactment of appropriate legislation.

8.80 A related project to driver testing facilities is the establishment and equipping of a Driver Training Academy to cater for the training needs of driving instructors and examiners. Consideration will be given to addressing the deficiency in driving skills in the heavy duty licence classes to reduce over-reliance on foreign drivers. The recommendations of the Road Traffic Act Review undertaken during the NDP 8 will be enacted in NDP 9.

8.81 The VTS stations at Maun, Selebi Phikwe and Kang together with ones at

Mogoditshane, Kanye, Mahalapye and Mochudi will be built and equipped during NDP 9. Successful completion of the planned network of VTSs will facilitate introduction of six-monthly testing of public service vehicles (passenger and goods) and mandatory testing of all vehicles over the age of three years, as a precondition for renewal of road licences. Furthermore, it is proposed to increase the number of vehicle examiners with a view to increasing the capacity for roadside testing of vehicles for critical roadworthiness requirements. Avenues will be explored regarding private sector involvement in the development of network of VTSs as well as the operations using Build Operate Transfer (BOT) and Build Own Operate Transfer (BOOT) strategies.

## **Railways**

8.82 Close coordination with other modes of transport, especially the road, regional rail organisations and transport operators, and making sound investment decisions, are essential to promote sustainable development objectives in the transport sector. BR faces the challenge of operating high quality conventional rail systems, extending services to regions now un-served by passengers or freight trains and adding additional daily trains to established long-distance routes. The railways also aims at generating enough positive operating cash flows to help support its continuing investment requirements, increasing profitability to compete with road transport, and eliminating dependence on Government subsidies, while maintaining and increasing its ability to serve the nation's transport needs.

8.83 Due to the imbalances inherent in the transport sector, the level of autonomy

delegated to BR management in taking commercial decisions without Government's approval shall continue to be reviewed during NDP 9. In order to create and maintain an enabling environment in the sub-sector, consideration will be given to the establishment of an autonomous Transport Regulator.

8.84 In view of the unfavourable financial position of BR, Government will review the gearing ratio of 0.6:1 with a view to reducing the financing cost of the organisation.

## **Road Development**

8.85 As the process of road construction up to the tender award stage is very lengthy and often results in delays in the implementation of road projects, improvements in this regard will be continued during NDP 9.

8.86 The policy on access roads will be reviewed taking into consideration socio-economic factors such as the population in the settlement served, the daily traffic levels and internal rate of return.

## **Road Maintenance**

8.87 The 1997 Road Maintenance study established delineation of responsibilities between the Department of Roads and District Councils, with Primary and Secondary roads being the responsibility of the Department, while Tertiary and Access roads are the responsibility of Councils. The Department of Roads will continue to implement the recommendations of the study.

## Privatisation

8.88 The private sector is currently implementing 100% of the Central Government road development and periodic maintenance and 55% of routine maintenance projects. In accordance with the 2000 Privatisation Policy of Botswana, ways of involving the private sector in routine maintenance projects will be further explored.

8.89 Government will, during NDP 9, pursue the recommendations of the institutional study carried out during NDP 8, including consideration for the expansion of the revenue sources of the road fund in the context of institutional restructuring.

## Labour Based Methods

8.90 Labour-based methods of road construction and maintenance are potentially effective tools for creating

employment. Capacity building for the implementation of labour based programmes, which started during NDP 8, will be continued and strengthened in NDP 9. This will include training and development of client institutions and citizen contractors to enable proper implementation of the technology.

## Cost Recovery and Road User Charges

8.91 The current level of cost recovery in the road sector is very low as can be seen from Table 8.5 below. During NDP 9, cost recovery will continue to constitute an integral part of Government's strategy to ensure that funds will be available for maintenance of the national road infrastructure. In this regard, the concept of roads tolls, being one of the measures of cost recovery, will be vigorously pursued in collaboration with the private sector.

**Table 8.5: Cost Recovery in the Road Sector – 1998/99 – 2002/2003 (P000)**

Revenue Type	1998/99	1999/2000	2000/2001	2001/2002	2002/03Est
Transport Permits	9, 500	15, 560	18, 000	25 ,000	27 ,500
Vehicle Licenses	10, 637	12 ,376	13 ,100	19, 200	21, 120
Driving Licenses	900	1, 000	1 ,000	1 ,800	1, 980
Vehicle Inspection	400	640	600	1 ,000	1 ,100
Driving Test	1, 400	1 ,700	1 ,900	3, 000	3 ,300
Total	<b>22, 837</b>	<b>31, 216</b>	<b>34, 600</b>	<b>50 ,000</b>	<b>55, 000</b>

**Source: Ministry of Works and Transport**

8.92 Although a harmonised SADC road-user charging system for vehicles travelling outside their home territory is in place, consultation with Member States regarding implementation will be continued during NDP 9 to promote the smooth flow of persons and goods within the SADC region.

### **Civil Aviation**

8.93 The policy thrust for civil aviation is to build capacity both in terms of infrastructure and institutional development to ensure safe, cost effective and efficient air travel in line with Vision 2016. Government will continue to market the infrastructure to stimulate increased utilisation so as to generate additional revenue with appropriate cost recovery measures. To this end, the Department of Civil Aviation will be transformed into an autonomous parastatal to be called the Civil Aviation Authority.

8.94 In line with the SADC Protocol on Transport, Communication and Meteorology, the Yamoussoukro Decision and other air transport agreements, Government will accelerate expansion of the air transport network through a variety of measures, including market liberalisation. This will provide adequate capacity and market access to facilitate easy movement of international and domestic traffic to and from Botswana.

8.95 Bilateral Air Service Agreements will take into account the potential benefits to other sectors of the economy such as tourism, trade, commerce and investment to meet the larger national interests.

8.96 Aviation Security is facing new and serious challenges due to the events of 11<sup>th</sup> September 2001 in USA, when hijacked aircraft were used as weapons of

destruction. The event has compelled Government to focus on future challenges of aviation security by modernising and upgrading facilities and establishing a new Aviation Security Cadre to enhance responsiveness.

### **Air Botswana**

8.97 During NDP 9, the airline's route network will continue to be influenced by the need to further develop tourism and to improve communication between the major business centres in Southern Africa. The introduction of services between Gaborone and Cape Town will be evaluated as the traffic between these cities continues to show potential for growth. The domestic network will also be cautiously expanded in order to maintain the viability of the airline.

### **Privatisation**

8.98 Privatisation was approved as a condition of the airline's restructuring in 1994. The airline fulfilled the pre-conditions for the privatisation project to commence, when it attained its first profits in 1997. Privatisation is expected to bring about network expansion through the link to a strategic partner with a wider market out-reach as well as appropriate technology. A privatised airline will also relieve Government of the burden of funding the airline's future capital requirements as these will be shared with the strategic partner and the other shareholders of the privatised airline.

8.99 Opportunities for the privatisation of some of the operations of the Ministry of Communications Science and Technology will be explored. Commercialisation and outsourcing will be investigated for the operations of the Departments of Information and

Broadcasting, Government Computer Bureau and Printing and Publishing Services. Botswana Telecommunications Corporation will also be privatised as soon as it returns to stable profitable performance.

### **Central Transport Organisation**

8.100 The Central Transport Organisation (CTO) policy objectives during NDP 9 will, by and large, be the same as those contained in NDP 8, i.e. cautious use of the private sector in the provision of maintenance and transport services to Government Ministries and Departments. The strategic objective is to continue building workshop facilities with the aim of leasing them out to the private sector in the long run. Programmes will be developed with the assistance of consultants, to empower citizen employees to take over these workshops in the long term, especially at those places where the private sector is not yet developed.

8.101 The provision of Government transport services remains fraught with wastage, in spite of the introduction of the charging system by CTO. During NDP 9, it is intended to decentralise from CTO, the direct financial responsibilities for transport services, wherever possible, to user Ministries and Departments. CTO would only act as facilitators and advisers especially in the case of fleet expansion, accident repairs, hiring of private sector transport, etc.

## **COMMUNICATIONS**

### **Information and Communication Technologies (ICT) Policy and Plan**

8.102 During NDP 9, a number of investigations will be conducted to identify ICT needs and gaps. The input from such

studies will then help to formulate new ICT Policy as well as a National Information and Communications Technology (NICT) Plan which will be implemented during NDP 9. Key considerations in the NICT policy and plan will be the following:

- (i). Modernisation of the national information and communications infrastructure to create a state-of-the-art multi-service information and communications network with advanced internet protocols and data communications capabilities at its core, based on emerging international standards and technologies.
- (ii). Provision of adequate and cost-effective internet access for educational institutions and out-of-school youth through Learning Resource Centres.
- (iii). Enhancing legislation to ensure data protection and privacy and safeguard intellectual property rights, patents and copyrights for ICT. A legal framework to increase confidence in the safety and legitimacy of electronic commerce will also be developed.
- (iv). Provision of e-governance, transparency and data-sharing: to ensure the use of ICT in Government to deliver quicker services to the public at convenient locations and times. This will require the consolidation and re-packaging of information in an appropriate format for public use and service delivery.
- (v). Setting up of Community Information Centres – aimed at providing ICT services to all

Batswana, both in rural and urban areas through the development of Community Information Centres. These will be internet access points in strategic locations around the country where the general public can access government services. This is in line with Vision 2016, which states ‘by the year 2016, the people of Botswana will be able to use and apply the potential of computer equipment in many aspects of everyday life’<sup>13</sup>.

- (vi). Creating an enabling environment for the growth of the ICT industry.
- (vii). Enhancing universal services and access, which guarantee affordable, equitable and effective information and communications services, including the Internet.
- (viii). Transforming BTC into a dynamic and profitable organisation for possible privatisation during NDP 9.
- (ix). A comprehensive review of regulated services, tariff rebalancing and price structures.
- (x). Review of Government’s funding arrangements for rural telecommunications to include operating losses for rural areas where revenue realised by BTC is lower than operating and maintenance costs. A similar review will be undertaken for loss-making post offices.
- (xi). Review of the long-term role of the Botswana Daily News.

- (xii). Further expansion of radio and TV coverage to rural Botswana.
- (xiii). Enactment of several laws to improve ICT such as the Mass media law.

8.103 This policy will play an important role in economic and social development as a result of the convergence of broadcasting and telecommunications services, and the development of Internet applications.

### **Challenges of Bridging the Digital Divide**

8.104 Teledensity has increased substantially and modern Information and Communication Technologies (ICTs) have become increasingly available in Botswana. However, the benefits derived from the liberalisation of the provision of information and telecommunications services have not been shared equally between urban and rural areas and between the rich and poor, thus resulting in the so-called digital divide. The sector will, therefore, be faced with the challenge of bridging this divide during NDP 9 in terms of developing strategies that will ensure that the information gap is narrowed.

### **Universal Service and Access**

8.105 The Botswana Telecommunications Authority has commissioned a study to assist with the development of a Universal Service and Access Strategy. The aim is to achieve the availability and delivery of affordable, equitable, good quality, and efficient information and communications services to everyone, including good quality access to the Internet. This will in turn strengthen economic development through greater

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<sup>13</sup> Long Term Vision for Botswana (Vision 2016) p.6

participation of the business community, including Small Micro and Medium Enterprises (SMMEs) within a fair and competitive environment.

8.106 The Botswana Telecommunication Corporation, with assistance from external consultants, has drawn up a comprehensive plan to turn around its entire operations. The plan is based on BTC' s vision, which aims at establishing an effective basic telecommunications infrastructure and position itself as a centre of excellence in communications, a key requirement for economic growth.

8.107 Modern business requires the highest levels of telecommunications. Examples of this are the needs of financial services companies and the growing requirement for electronic business (eBusiness) capabilities. Botswana needs telecommunications infrastructure at par with those of developed countries. This will require increased capital investment during the Plan period to ensure "catch up".

8.108 The adopted strategy for BTC is to rectify current problems quickly, start a transformation of its entire operations and position itself to be an effective force in the new eBusiness world. The approach is based on transforming BTC into an effective customer-focused organisation. This will involve radical transformation and restructuring of the Corporation to become a lean, process-based organisation, with improved commercial focus, better customer service and key systems operations. There will be special focus on business customers.

8.109 BTC will undertake a comprehensive review of all BTC regulated services, tariff re-balancing, price structures, including per second billing to expand its revenue base.

8.110 With respect to the rural telecommunication programme, Government finances the capital expenditure but does not finance the annual operating losses or revenue deficits resulting from these investments. The existing national policy that articulates a right to universal telephone service at affordable prices cannot be challenged as this is in line with best practice world-wide. For BTC to continue to provide telephone services in rural loss-making markets, Government will consider providing funds to cover *both* the capital and the operating deficits arising from such projects.

8.111 Botswana is a relatively small country. It currently has two major regulators in the information and communications sector. These are Botswana Telecommunications Authority (BTA) and the National Broadcasting Board (NBB). The BTA acts as the NBB's secretariat. During NDP 9, a rationalisation exercise will be undertaken with a view to bringing all information and communications regulatory and competition matters under one body in line with Government's objective of reducing the size of the public sector. Government will also facilitate the freeing of airwaves by liberalizing the licensing of information and broadcasting services as one of the strategies for economic diversification in the media sector.

## **Postal Services**

8.112 BotswanaPost will continue to manage the activities of post offices effectively for the benefit of customers, shareholders and employees. The provision of the service to the rural areas will continue to be a challenge for the organisation during NDP 9. However, in

view of the loss-making of the 72 of the 112 post offices countrywide, Government will consider meeting the operational costs of the rural loss making post offices.

### **Meteorological Services**

8.113 In view of the policy on cost recovery and the quest to provide quality data, Government Departments and the private sector will be expected to pay for the services provided by the Department during NDP 9. Although users other than Government paid for data in the early 1970s, this was suspended in the 1980s in view of the fact that there was no established policy to deal with cost recovery issues.

8.114 Most National Meteorological Services of Members (countries) of the World Meteorological Organisation (WMO) are going through a restructuring process in order to introduce alternate service delivery as well as set up partially or fully commercial agencies or authorities. A consultancy will be carried out to study these issues in line with the Privatisation Policy. Due attention will be given to the provision of service as a "public good" which will be paid for by the Government.

8.115 A Legal instrument will be put in place to establish the Department and set-up its operations in line with the restructuring process and the policy on cost recovery.

### **HIV/AIDS**

8.116 The focus of the Ministry will be on the inclusion of HIV/AIDS programmes in all tenders, co-operating with private sector and transport associations in the establishment of transport and construction specific social

safety net programmes, providing more phone lines for the HIV/AIDS Toll Free programme as well as using transport operators and associations to deliver HIV/AIDS messages. During NDP 9, measures include the establishment of the necessary HIV/AIDS institutional structures and mechanisms to guide and sustain the response, development of a mainstreamed HIV/AIDS operational plan and a sector policy, utilising strategic linkages with other sectors in establishing relevant prevention, care and support programmes and undertaking research into the impact of HIV/AIDS on the Ministry and the sector.