

THE NAMIBIAN ROAD SECTOR REFORM: AN EVALUATION

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ABSTRACT

In 2000 Namibia implemented a road sector reform, which at that time was one of the most radical and comprehensive to have taken place even when seen in a world-wide perspective. The overall aim of the reform was to ensure the proper preservation of the road network as well as its balanced development. Based on the data and information available today, the evaluation concludes that the new arrangements so far have failed to achieve what was hoped for in 2000. The explanation given is that road sector reform has not been implemented as intended.

1 Introduction

1.1 Background

The arrangements in the road sector in Namibia were at the time of Independence in 1990 similar to what could be found in other countries at that time. They were characterised by that:

- Roads were fully financed by way of taxes, and priorities were therefore ultimately decided on by political considerations.
- The roads were managed by a department of the government administration (i.e. the Department of Transport (DOT) in the Ministry of Works and Transport (MWT).
- A substantial part of the works, in particular routine maintenance, was carried out by force account units managed by the DOT.
- Most construction and periodic maintenance works were performed by private contractors by way of competitive tendering.
- A substantial portion of the preparation of documentation for and supervision of the construction and periodic maintenance works was performed by private consultants.

Seen in a world-wide perspective there have been many changes in these arrangements during the last 20 years. The most prominent of these are:

- The transferring of the road management function to a semi-autonomous body, an agency of the state.
- The introduction of earmarked user charges and private financing by way of tolls of road maintenance and/or construction works.
- The abandonment of force-account units in favour of competitive tendering for all types of works.
- Even further reliance on consultants for planning, preparation of tender documents and supervision, and similar types of standard road management functions.

Namibia has followed the same route during the 1990s. Indeed, the Namibian road sector reform has been one of the most radical and comprehensive to have taken place even when seen in a world-wide perspective.

1.2 The reform

The core of the reform was the establishment in 2000 of three new organizations (Bruzelius and Poolman, 2000): (i) the Road Fund Administration (RFA), (ii) the Roads Authority (RA), and (iii) the Roads Contractor Company (RCC).

The role of RFA is to manage a road user charging (RUC) system with a view to ensure a safe and economically efficient road sector, as well as full cost recovery. RFA is empowered to impose (i) annual vehicle registration and licensing fees, (ii) road user levies on petrol and diesel, (iii) charges on motor vehicles based on their travelling distance and mass (so-called mass-distance charges), and (iv) entry fees on foreign registered vehicles. The board of directors of the Road Fund Administration is appointed by the Minister of Finance.

The objective of RA is to efficiently manage the national road network. RA is not permitted to itself undertake physical work relating to road construction and maintenance. All works must be let on contract. The minister responsible for transport appoints the board of directors

The RCC, which has evolved from the departmental road maintenance and construction units in DOT, is a Companies Act company in which the State holds all the shares. The RCC was to receive preferential treatment during the first three years (the 'transitional period'). The board is appointed by the minister responsible for transport.

1.3 Purpose

During the first years of the new arrangements in the road sector it became evident that they were not functioning as expected. In particular, it was noted that far too little money was being made available for road preservation, reflecting a shortage of funding available to the Road Fund.

In 2009 the total cost to be financed by the Fund was in very broad terms estimated at some N\$ 1.6-1.8 billion (and perhaps even more than that as all costs were not fully known). The total revenues mobilised through the road user charging system only amounted to some N\$ 0.9-1.0 billion, which meant that about N\$ 0.8-0.9 billion had to be financed in other ways, including by taxes, loans and donor contributions. The Namibian road financing system was, hence, clearly unsustainable.

The information presented here is from a study in mid-2009 ('the Study') commissioned by the MWT with the purpose to advise the Government on how to improve the road financing system (Bruzelius, 2009). The conclusion of the Study was that the main issue facing the road sector was more fundamental than the financing issue, which should rather be seen as a symptom of the main issue.

2. Review of revenues and expenditures

2.1 Introduction

This section contains initially a review of the developments as concerns the revenues of RFA since the year 2000. The main expenditures of RA are then reviewed. These expenditures are moreover compared to those of the period 1980 to 1990 for the then DOT (as part of the pre-Independence administration) as well as those of the period 1990 to 2000, that is the period when roads were managed by MWT.

To make prices and revenues of different years comparable, the CPI of Namibia is made use of. The CPI is available for the entire period since 1980. To make expenditures of different years comparable a construction cost index (CCI) is made use of. It reflects changes in the costs of the inputs used by a contractor, and does not necessarily reflect actual changes in contract prices. The CCI and CPI are close, and for that reason the CPI is used as a proxy for the CCI for the period 1980 to 1990 as it is only available as from the year 1990.

Another time series made use of is the number of licensed vehicles. The licensed fleet can be seen as a measure of the change in the use of roads. Data on licensed vehicles are only available since 2000; the values for the 1990s have been determined from a few estimates prepared for that period by various studies, whilst values for the 1980s are based on a rather low trend reflecting an assumed increase of 3% per annum.

2.2 The revenues of the Road Fund Administration

As mentioned, the revenues of the Road Fund are (mainly) generated by a fuel levy on diesel and petrol, annual license and vehicle registration fees, cross-border charges, and mass distance charges.

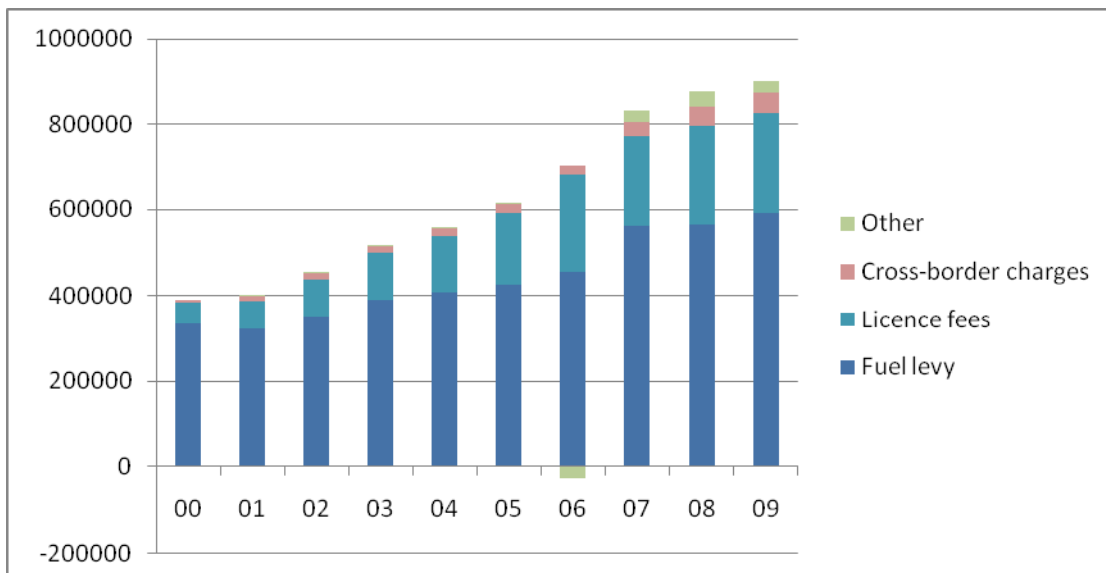


Figure 1: RUC revenues; '000 N\$

The revenues from the fuel levy are the dominant source of income. In 2008/09 they comprised 66% of total revenues, the revenues of the licence and registration fees some 25% and the other sources about 9%. The evolution of total RUC revenues since 2000/01 is shown in Figure 1. As may be seen the total revenues have increased over the 10 year period from some N\$ 400 million to almost N\$ 1 billion.

The modest increase in the year 2002/03 reflects the fact that the RFA in that year started to refund the fuel levy to purchasers of diesel using it for off-road purposes. The refund makes up some 15 to 30% of the total fuel levy revenues. The data of Figures 1 and 2 reflect the revenues net of the refund.

Figure 1 includes the RFA forecast of the revenues for the year 2009/10. As can be seen, it is assumed that revenues would increase modestly during that year. This is likely pessimistic (and reflects the policy of RFA to predict revenues cautiously) as the fuel levy and other fees were increased as from 1 April, 2009. Overall RUC revenues will probably amount to between N\$ 925 and 1 000 million during FY 2009/10.

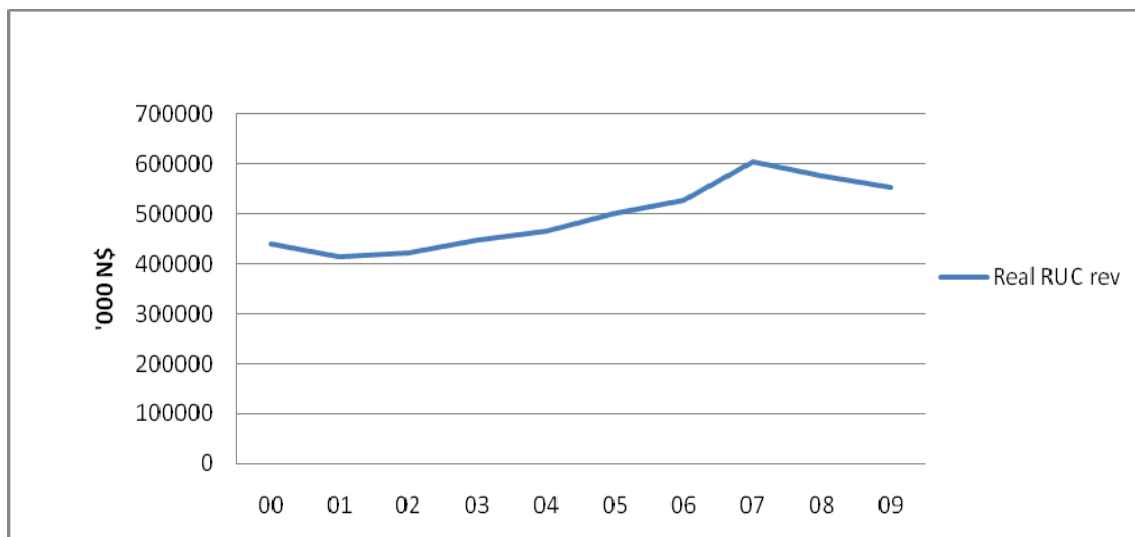


Figure 2: Total RUC revenues in 2001 prices

Figure 2 shows the evolution in the total RUC revenues but in real terms, and in 2001 prices. Even in real terms total revenues have increased but rather moderately and by 37% between FY 2000/01 and FY 2008/09.

When the development in the real revenues is viewed on a per vehicle basis, there has, on the other hand, not been an increase as shown by Figure 3. Revenues per vehicle hover at around almost N\$ 3000 per year (in 2001 prices), neglecting the cautious forecast for 2009/10. This development reflects two different trends in the main components making up the total RUC revenues in real terms.

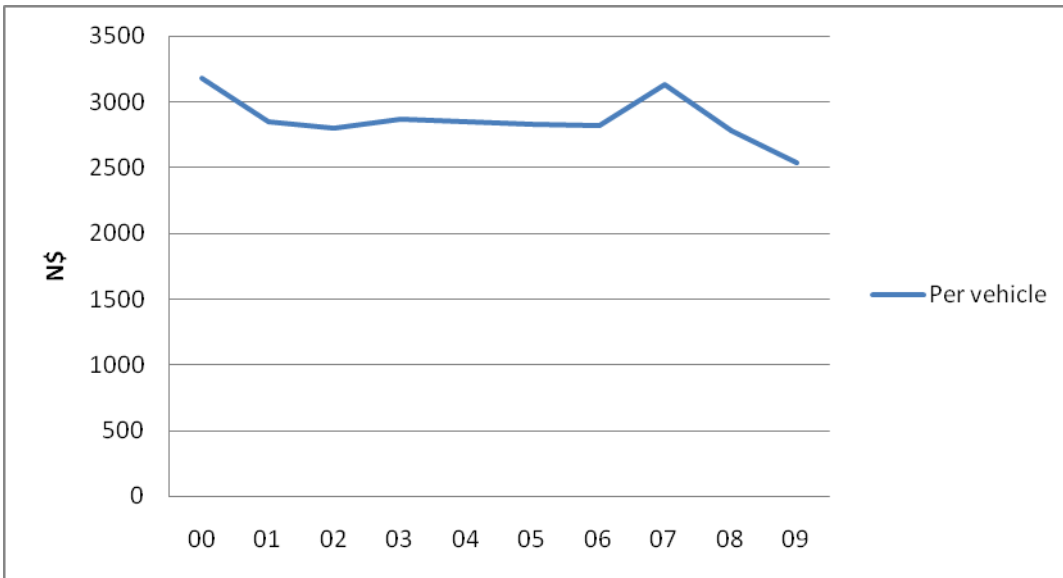


Figure 3: RUC revenues per vehicle in 2001 prices

Figure 4 shows the level of the fuel levies in real terms, and for the years when an increase in the levy was implemented. The original levy in 2000 amounted to 60 cents per litre of diesel and 68 cents per litre of petrol. As from 1 April, 2009, the levy amounted to 94 cents per litre for both types of fuel. In real terms, the fuel levy has fallen since 2000 and with about 20%. The 2009 levy would thus have to be increased by about 25% in order to restore the value of the levy to its initial value in 2000.

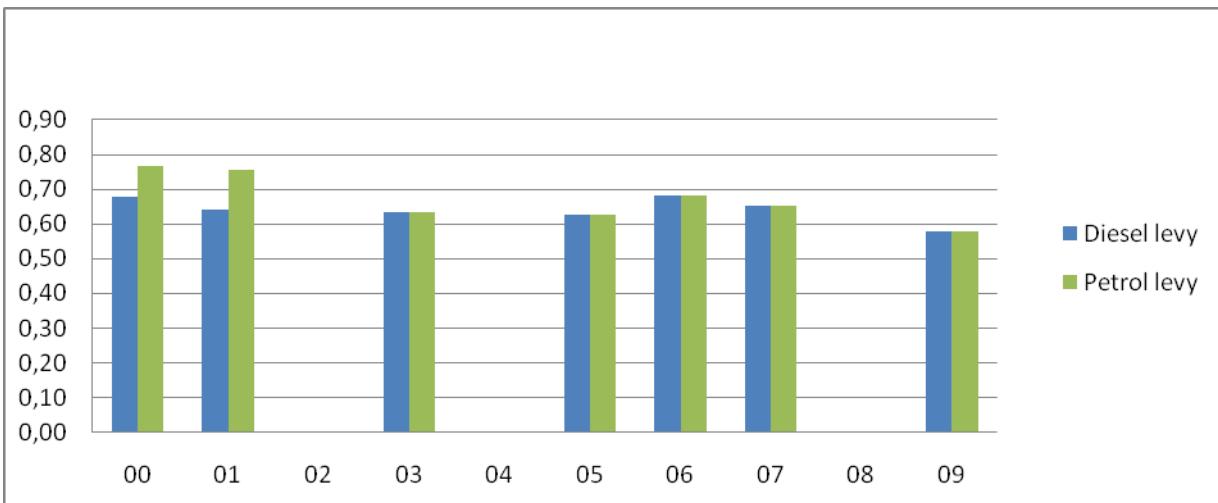


Figure 4: The fuel levy in 2001 prices; N\$

Figure 5 shows that other (i.e. all but the fuel levy) RUC revenues per vehicle have increased until 2008 in real terms; thereafter these revenues have been falling reflecting low nominal increases in the licences and cross-border charges during the past years. The increase until 2007/08 is explained by that during the period since 2000, the RFA has introduced two new sources of income, the cross-border and the mass-distance charges.

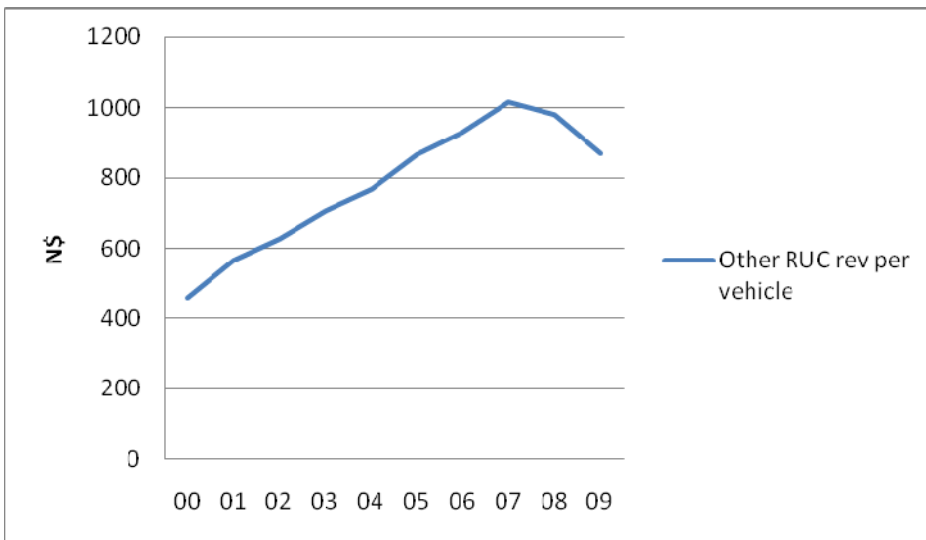


Figure 5: Other RUC revenues per vehicle in 2001 prices; N\$

Another contributing factor is that the average licence fee has been raised even in real terms. In approximate terms the licence fees have been increased by a factor of 2.6 to 1 between the year 2000 and 2009, whilst consumer prices have increased by a factor of 1.85 to 1 during the same period, a real increase of some 40%. In recent years the licence fees have decreased in real terms, however.

In summary: Since inception of RFA operations, revenue per vehicle has in real terms remained more or less unchanged, albeit has fallen in recent years. The revenues from the main source, the fuel levy, have been falling and approximately by about 20% in real terms. The revenues from the other sources (in real terms and per vehicle) have, however, increased until 2007/08.

2.3 Expenditures on road works

In this section the costs of the following two types of road works will be reviewed:

- Construction, including reconstruction, upgrading and investments in new roads
- Maintenance, including routine and periodic maintenance.

The data refer to the proclaimed roads, including paved and unpaved roads, but do not include farm roads or roads in municipalities.

The total annual expenditures on road maintenance per year for the period since Independence are shown in Figure 6, both in nominal and real terms. The budgeted values for FY 2009/10 are included. Use is made of the CCI to obtain real values.

Figure 6 shows that expenditures on maintenance have been increasing gradually in nominal terms since 1990. In real terms there has, however, not been much of a change over this 20 year period. Two dips may be observed, one at the time of Independence and one in 2000, i.e. at the time of the launching the road sector reform.

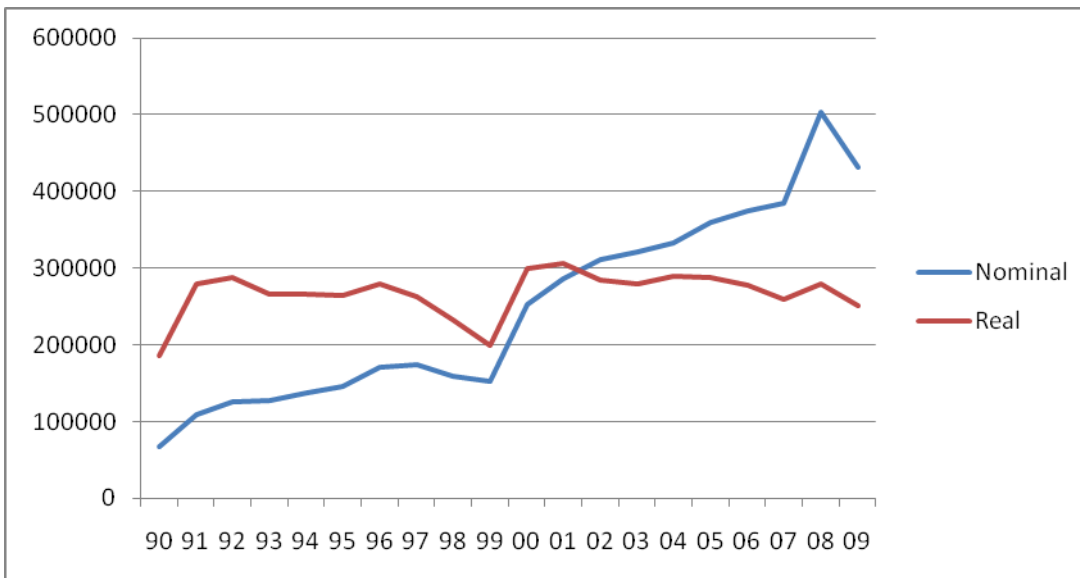


Figure 6: Maintenance expenditures from independence; '000 N\$

Since the vehicle fleet has grown considerably since Independence, the real value of funding per vehicle made available for maintenance has, however, been decreasing; see Figure 7. During the first years after Independence these expenditures amounted to more than N\$ 2000 per vehicle and year. In recent years, the amount spent on maintenance has fallen well below N\$ 1500 per vehicle and year, and the trend, as reflected in the budget for FY 2009/10, is towards even lower allocations and expenditures.

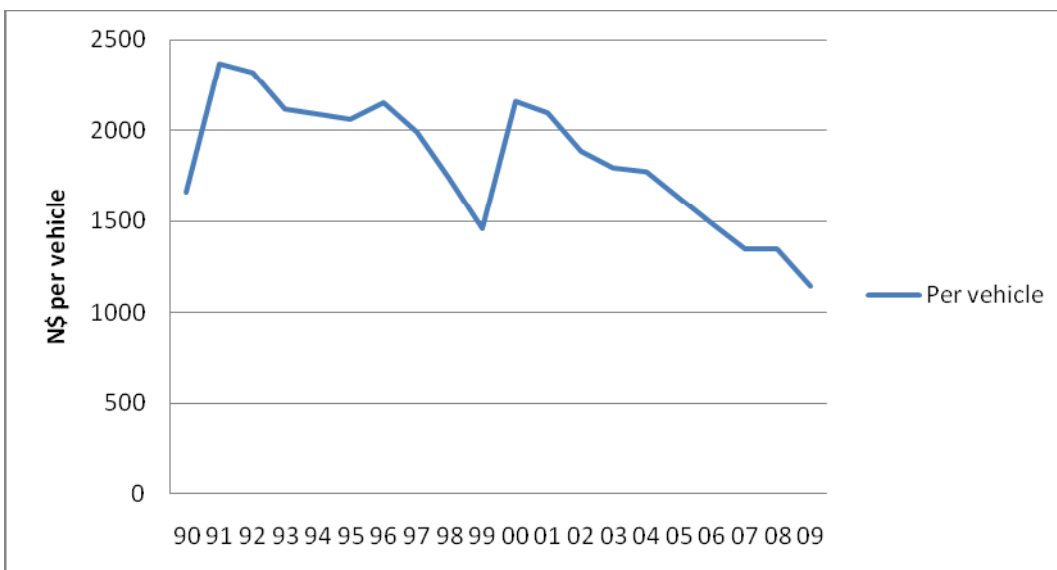


Figure 7: Maintenance expenditures per vehicle in 2001 prices; N\$

The falling trend of maintenance expenditures is, however, older and dates back to at least 1980 as demonstrated by Figure 8. With the exception of 1980, maintenance expenditures have hovered at around N\$ 250 million per year in 2001 prices equal to some N\$ 430 million in today's prices. But per vehicle the maintenance expenditures have been falling dramatically and more or less consistently from some N\$ 4500 in 1980 to about one third thereof in 2009.

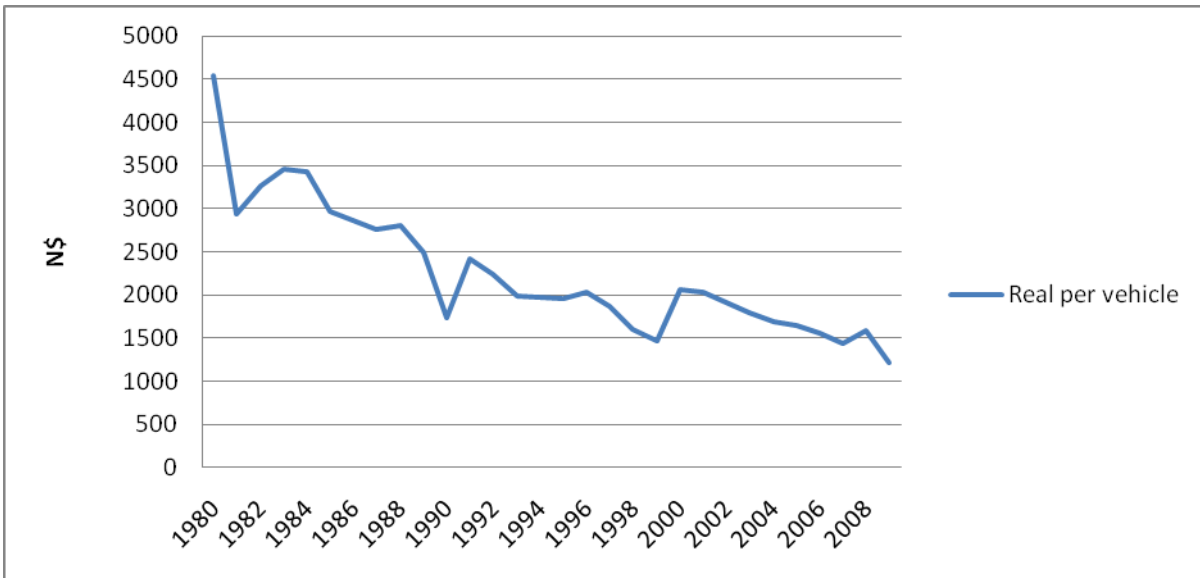


Figure 8: Maintenance expenditures per vehicle since in 1980 in 2001 prices; N\$

Does this reflect a shortage of funds available to the road sector as a whole? A perspective on this issue is provided by the following Figure 9, which shows for the period since 1980 and in real terms, the development in expenditures on (i) maintenance alone and (ii) maintenance plus construction, including rehabilitation.

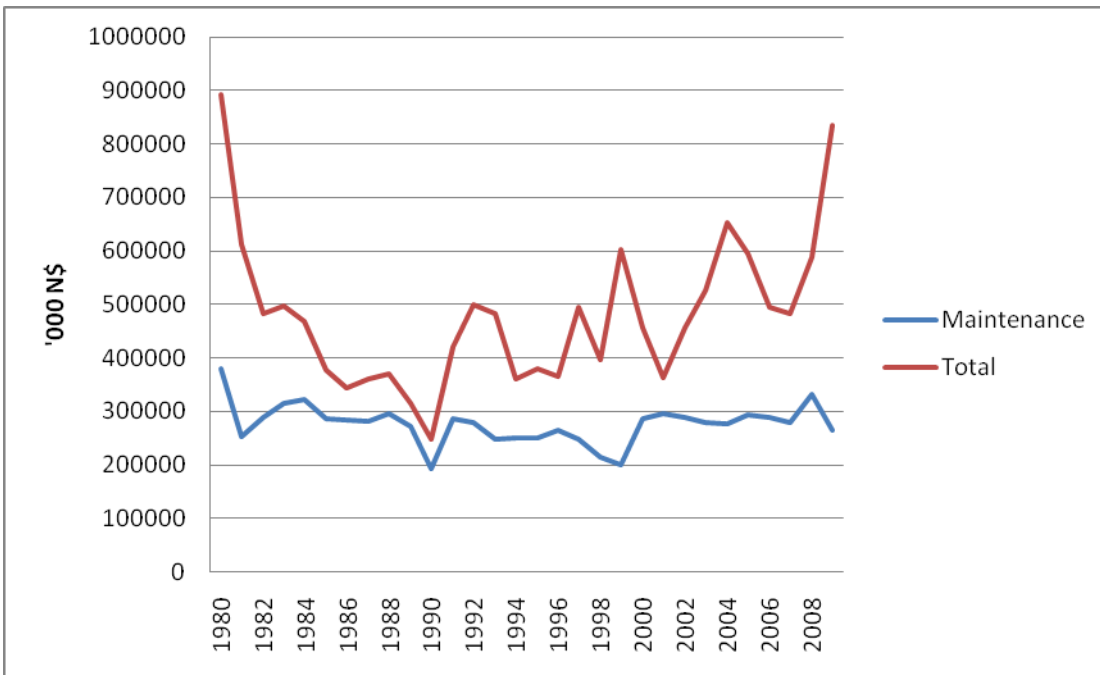


Figure 9: Maintenance and total expenditures in 2001 prices; '000 N\$

A number of observations can be made:

- 1980 is an important year in the history of Namibian roads. That is the year when the South African government renounces its claim to Namibia and sets up a separate administration for the country, 'the Windhoek Administration'. As a consequence the substantial inflow of funds from South Africa dries up, and the Windhoek Administration is left to make do with its own sources of funding. The fiscal situation as a whole deteriorates during the 1980s resulting in a reduction in all kinds of public expenditures, including in allocations for construction works during the 1980s.
- The year 1990 is another important year, the year of Independence. As from now on, more money is being made available for construction and rehabilitation works, in part made possible by donor funding.
- The development in the real amount of resources made available for reconstruction and new construction works since 1990 is uneven but shows an overall rising trend. Indications are that in recent years the funds made available for new works grow faster than funds made available for reconstruction works.
- The RA budget for the year 2009/10 is in real terms on par with the budget for roads in FY 1980/81. There is hence no shortage of funds made available to the road sector, but most of the additional funding is for investment purposes, whilst funding for maintenance remains constant in real terms. Only a smaller part of the overall budget of RA is financed by the Road Fund.

2.4 Expenditures on administration

Expenditures on administration, mainly cost of staff for the RA and RFA, have increased rapidly since 2000. The overall administration costs were in 2008/09 3.81 times higher than in the year 2000, corresponding to an average rate of growth of 18% per annum. During the same period the total cost of operations (road works, planning, etc.) rose 2.24 times, corresponding to an annual growth rate of 11% during that period. It should be mentioned that during this period, CPI and CCI rose annually by an average of some 8%. The real cost of getting things done by way of RA and RFA employees is thus increasing at a significant speed.

2.5 Comments

The review above has shown that before Independence, the fiscal squeeze during the period of the 'Windhoek Administration' resulted in rapidly decreasing resources being made available for works in the road sector. Since Independence there has been a gradual (albeit uneven) increase of resources made available to road works. The roads budget for FY 2009/10 provides for more resources than during any year since Independence; indeed it is on par with the budgets achieved during the period up to 1980.

There are thus huge sums being made available for road works, so a shortage of funding cannot be seen as an explanation of the fact that less money than ever (at least since 1980) is made available in the budget for FY 2009/10 for maintenance works when measured per vehicle.

What are the implications for the existing road network? Not straightforward as preservation of roads entails three types of works (i) routine maintenance, (ii) periodic maintenance of paved roads or regravelling of gravel roads and (iii) reconstruction. The data above have focused only on the first two of these components. However, several analyses carried out in recent years show convincingly that allocations made available for reconstruction works have also been far from adequate.

The best indicator of the effects of the inadequate funding for preservation of the national road network is provided by road condition surveys. Condition surveys of the paved road network were carried out regularly during the 1990s, and then again in 2001 and in 2006. The trends are clear: both the surfacing condition (reflecting riding quality) and the structural condition (being a measure of the age of the road from a usage point of view) have continuously deteriorated since Independence.

Similar data are not available for the unpaved road network. However, the condition surveys carried out in 2002 and 2006 show that approximately 29% of the unsealed road network was considered to be in a poor to very poor condition during the latter year, up from 23% in 2002.

3. Concluding words

The overall aim of the reform of the road sector was to ensure the proper preservation of the road network, as well as its balanced development. Based on the data and information available today the conclusion must be drawn that the new arrangements have failed to achieve what was hoped for.

Two explanations can be identified:

- The road sector reform has not been adequately implemented
- The reform contains structural deficiencies.

The Study states that both these factors have contributed to the current situation, but views the first as the most important one. As concerns this explanation the Study notes that the main idea behind the reform was that of delegation of road management and financing. To ensure that this would be functioning four further components were envisaged as necessary.

- A clear and measurable objective
- An effective system for enforcing accountability
- Self-financing
- Freedom to hire, fire and promote staff, and implicit in this the sole reliance on merit as a source for decisions on these matters.

According to the Study, most of this does in fact not exist today. The objective is there in the law but is in effect not applied, and self-financing is, as has already been pointed out, not being practised. The road sector reform has resulted in the creation of two new organisations, but these do not function as independent structures. The RA in effect functions more as an integral part of a ministry. And the RFA does not play its intended role as a regulator. It primarily collects money and is involved in determining new ways for how to raise funds for the sector. The preference given to RCC for undertaking maintenance works, which was originally intended to last for three years, has been extended three times, and up to 2012.

The fact that the objective formulated for the road sector reform, efficiency, is not being pursued is also evidenced by a lack of economic analysis and competency in this discipline in the two organisations. That RA and RFA are not playing their intended roles is also brought out by the high growth in the costs of their administration, including, and not least, expenses for employees.

The conclusion of the Study is therefore that there is no real delegation in the road sector today, and that this is to be seen as the real issue as concerns the performance of the road sector, and not the inadequate allocation of funds for maintenance. It is furthermore argued that if delegation had actually been implemented, then the current situation would not have arisen.

The Study's conclusion is that unless drastic steps are taken then the future of the road sector looks bleak. A continuation of the current practices can be expected to result in the gradual degrading, and eventual destruction, of the most valuable asset of the country. The replacement value of the Namibian road network (i.e. what it would cost to rebuild it again today at today's prices) can be assumed to be at least N\$ 65 billion.

References

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