# INTERMODAL CARGO TRANSFER POLICY

## 1. THE AIM

The aim of this document is to make a policy proposal for the migration of certain categories of road cargo from road to rail. It is presented in this form so as to encourage debate among the officials of the Department of Transport before submission to the Executive Committee for approval.

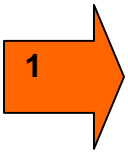
## 2. THE PROBLEM

A triangular problem facing the South African economy in transportation is characterized by:

- the decline of railways as a preferred mode of transportation by freight operators;
- the growth of road freight transport, and
- the deteriorating road network as a result of the growth of the road freight transportation.

All these problems cusp to a cost to the state, in one form or another. There are secondary and tertiary social, credibility, opportunity and hidden costs which emanate from the delays in solving these problems. Government expenditure on road maintenance and rehabilitation is exorbitant.

This policy proposal seeks to reverse the situation that has existed since 1920s. From this period, the then Government was faced with the need to protect its rail industry and rail infrastructure from the emerging (predatory) road freight industry.




**Policy Statement:**

The Department of Transport will seek ways and means to reduce and reverse the migration of certain categories of cargo from rail to road. The main aim is to reduce Government 's obligations to the high road maintenance and rehabilitation costs.

During this period, Government protected its rail industry by granting permits to certain road operators. These permits were granted only when it was deemed not injurious to the economic interests of the rail industry.

The deregulation of the road freight industry has led to the current situation where road now carries more cargo than rail.

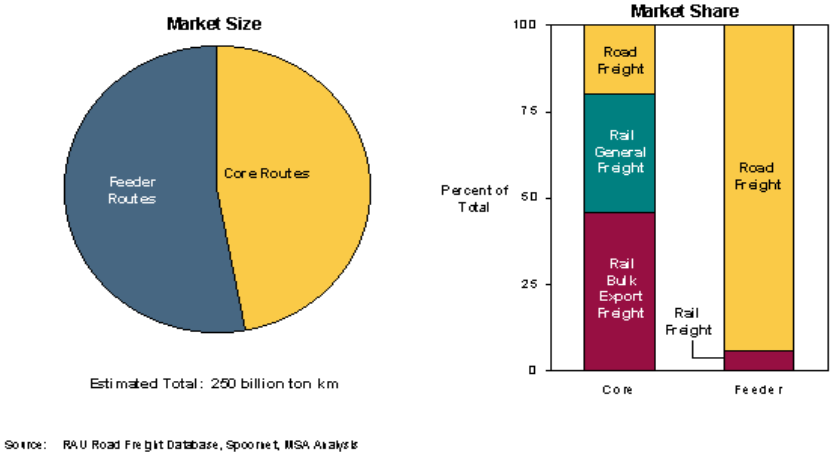
The NFLS figures show that the road freight industry moved about 920 million metric tonnes of cargo in 2005. This represents a growth of about 200 million metric tonnes from 2004. During the same period, rail cargo haulage grew by a mere 5 million tonnes.

The problem of the inactivity of Government has been captured by ICOMOS when they state:

> *"bureaucracy and lack of clear policy today prevented the rapid transfer of redundant infrastructure from the railway owners to other parties. Where operating lines are concerned, lack of funds has oriented the regular maintenance and security of buildings and structures."*[1]

[1] International Council on Monuments and Sites (ICOMOS) - World Report on Monuments and Sites in Danger.

**Current Traffic Flows**




Source: RAU Road Freight Database, Spoornet, MSA Analysis

2

**Policy Statement**

The Department will use the National Freight Logistic Strategy to determine the necessary split between the modes of transport for an effective logistics system.

# 3. DISCUSSION

## 3.1 The Growth of the Road Haulage Industry

### 3.1.1 The Previous Government's Policies

A brief study of the trucking industry indicates that Government has been complicit in promoting untrammelled growth of the road freight industry to the detriment of the rail system through:

- Fuel taxation of rail even when rail operators are not on the road;
- The continued increase of mass loads, truck lengths and axle loads for trucks;
- Allowing the smaller vehicles to subsidize the externalities of the heavy road haulers. This flies in the face of the constitutional imperative of equity;
- Not investing in rail infrastructure over a 20 year period

Government could not pronounce its position between road and rail because it, too, was also involved in both road and rail freight.

The rail industry did not take the growth of the road freight industry because it was receiving soft subsidies from the state. In the late 1980's Government finally gave to the effective lobbying of the road freight industry by in and deregulating the industry.

The Government mistook the deregulation of the industry as a license to walk away from the industry. A myriad of other problems the emanated when government abdicated its responsibilities to the primate sector.

3

**Policy Statement**

In instances where there is an unfair balance of cargo from one mode to another, and such an unfair balance is at cost to the State, the Department of Transport will reserve the right to review its deregulation decisions.

### 3.1.2 Trucks Got Heavier and Longer

The similarities of the South African and American design of heavy vehicles stemmed from the same weather patterns and modest traffic densities on rural roads. While the US was motivated by long distances occasioned by the vastness of the country, the South African ones were constructed to bridge the urban- rural distance. These vehicles are:

- 17 metres and have three axles and can increase to 38 GVM to 45 metres;
- They can range from mechanical horse and semi-trailer of 13 metres
- Maximum legal axle was 7.85 metric tons
- The steering axle has two tyres weighing at 7.tons.

These specifications in axle loads were not changed when South Africa changed to the metric system. As a result, 4% was weight added to the already existing load permit.

Government increased the load capacity to accommodate the demand from the road haulage industry which had shifted to the use of a horse and two semi-trailers. This meant the length of the truck would be increased from 17 metres to 20 metres, thus having a total of seven axles that could load to 17 tons.

The axle issue continued to cause problems for our roads. For both the public and private carriers, the trucks with more numbers of axles, five-axle articulated trucks, were the highest with the average annual kilometres per vehicle category.

In 1994, the five axle articulated trucks in the private carriers had done 71 500 kilometres, and for the public carriers, the average was 117 912 kilometres.[2] (Private refers to companies whose primary objective is not transport and public refers to companies that transport goods for rewards.)

There current efforts to reduce axle loads through weighbridges and overload strategies need to be reinforced.

4

**Policy Statement**

In order to protect the road infrastructure and reduce the costs of road maintenance, the DOT will reduce axle loads and determine the appropriate lengths for trucks on the road. This will be done within the parametres of the Overload Control Strategy.

This road construction, maintenance and rehabilitation costs have diverted funds urgently needed to:

- close the spatial inequalities between the rural and the urban,
- to encourage social contact through correct subsidization of the commuter and the public transportation system.

In the following two decades there was further relaxation which led to the introduction of 22 metre trucks with GCM tons of 56 and axle loads of 9 tons. The 5% tolerance, in effect, meant that the trucks could be loaded to 59%. In addition, the introduction of the Bridging Formula led to the increases in loads by truckers who exploited the multi-axle combinations.

The private road haulers do not have a social obligation (public good) but the infrastructure on which they operate is funded by all the taxpayers. The damage which they cause to the infrastructure compared to other infrastructure users is immense.

### 3.1.3 Some problems faced by Road Freight

The road freight prices have declined in real terms. From the 1992 rand ton kilometre price of 36 cents by 2003 the rand to kilometre price has declined to 23cents.

[2] NDOT Statistics.

Road freight customers also complain of the following:

- Customer service;
- Order fulfillment;
- Fleet reliability;
- Inventory management;
- Warehousing
- Transport costs

5

**Policy Statement**

The DOT will work with private road haulers to harmonize operations along the supply chain in such a manner that complaints from customers are minimized. Seamless operations from point of origin to point of destination will be encouraged.

Truck drivers also face serious problems such as:

- the prevalence of HIV/Aids by long distance drivers,
- drivers working for long hours,
- increasing accidents,
- driver fatigue,
- hijacking
- inadequate pay.

6

**Policy Statement:**

The Department will work in tandem with the Department of Labour, the Department of Health and road haulers, driver trade unions and representative bodies to reduce the problems in all aspects of health, labour and operations.

### 3.1.4 Some Problems Faced By Rail

The following problems faced by rail such as:

- shortage of wagons
- shortage of maintenance staff
- age of fleet,
- old technologies;
- distance from markets;
- lack of interface between port and rail

may well be true, but they require redress through various means.

Resources have been declining because in 1995/1996, there were 131 234 freight wagons, declining to 120 677 in 2000/2001 and declining even further to 114 433 in 2002/2003.

The average age of locomotives is 25years compared to the best practice average of 16 years.

7

**Policy Statement**

Subject to the availability of Treasury funding, Government will provide the necessary funds for the revival of both the fixed and the rolling stock infrastructure.

**Policy Statement**

8

Private investors and public private partnerships will be encouraged to be part of the provision and the revival of rail services and equipment.

### 3.1.5 Some Unfinished Business

In September 1996, the Department of Transport issued the White Paper on National Transport Policy. Envisaged in the White Paper was, *inter alia, a* Road Transport Quality System (RTQS). It is now ten years since the publication of the White Paper but the RTQS has not been established. According to this policy intention, there would be:

- a fair user responsibility for the funding of roads,
- compliance with the safety requirements; and
- law enforcement.

Private industry players have started on their own to lobby for the implementation of the RTQS. However, it is unlikely to work if it is not uniformly applied across the industry. The voluntary implementation by one operator, or a group of operators, does not oblige the others if it does not come from government. It cannot be adequately monitored if it is applied voluntarily. It will also load the dice of self-regulation, thereby further decreasing the prerogative of the Government to intervene

Even if the RTQS were to be established, redressing the damage that has been done by the non-implementation of the RTQS in the past will be a difficult task.

### 3.1.6 The Role of Government

The fair user responsibility should be co-ordinated between the Department of Transport and National Treasury, and the law enforcement requires the visible role of the Road Traffic Management Corporation (RTMC) and other law enforcement agencies.

In certain quarters the Government has been accused of dragging its feet on the issue of a fair modal split. The South African Transport and Allied Workers' Union (SATAWU), for instance, complains that:

> *"The Department of Transport (DOT) has repeatedly said it will not consider re-regulating road freight transport but try to shift more freight on to the railways by clamping down on overloading by freight haulers, imposing higher taxes on road use and so on."*[3]

It is now timely for Government to intervene urgently while making parallel preparations for the establishment of the RTQS. The two processes should therefore run concurrently. The intervention is justified because the socio-economic environment in which the road haulage industry currently basks in success is a creation of government, through its macro-economic policies.

Logically, Government cannot allow one mode of transport (road) to benefit from the political dividend while limiting the others (such as rail). In addition to this logic, Government owns large portions of rail, and it is therefore in its interest to create an enabling environment for other industry players while not neglecting the sustainability of its own rail company.

DOT should finalize the RTQS as a matter of urgency.

[3] The Shopsteward Vol. 10 No 3-May 2001

9

**Policy Statement**

The Department of Transport will set the process in place to establish the Road Quality Management System (RQMS) as envisaged in the White Paper on National Transport Policy of 1996.

### 3.1.7 Reduction of costs to Government

A clear rail-friendly cargo policy will absolve government from blame that it underutilizes or misallocates fuel tax paid into the National Treasury by road freight operators.

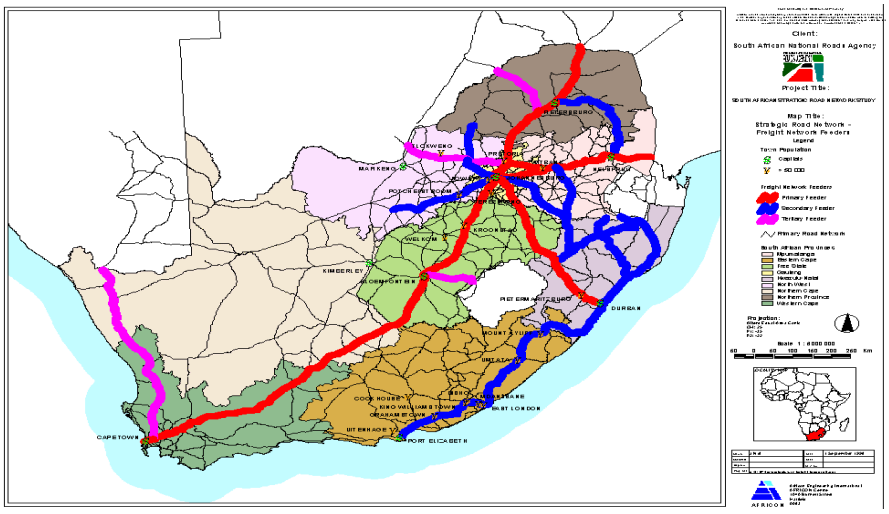
Furthermore, it will reduce the double whammy faced by Government; - that while overloading is a cost to the state (e.g. road rehabilitation), other ancillaries such as monitoring, accident recovery, aerial pollution, noise pollution, law enforcement, prosecution of traffic offences - are also costs borne by the State.

Rail is powered by electricity on certain rail stretches and diesel on others. If the policy proposal is accepted, fuel requirements used by road haulers and volumes of road-based cargo, will be reduced. Increased availability of fuel will have knock- on effects on fuel prices and will reduce the petrol price pendulums as influenced by the international crude oil markets. The extents of these reductions have not been calculated for the purposes of this policy proposal.

The logic for the road haulage to continue dealing with small cargo cannot be overemphasized. In the same manner, it would counterproductive for rail-friendly cargo to continue being on road. The trade offs are thus easy - rail should let go of cargo that can be carted on roads, and road should let go of cargo that can be carted by rail.

### 3.1.8 The Current Road Network

The road network in South Africa consists of 532 000 kilometres, about 221 00 km of which are unproclaimed roads largely in rural areas. These roads carry a total of 6 798 696 vehicles, with a road density values of 19.8




Many of these roads are gravel roads which account for 198 141 km of roads.

The largest number of vehicles are found in the Gauteng province, at 2 583655, followed by the Western Cape with 1 169 909 motor vehicles on the Western Cape roads.

In the specific issue identified in this document, there are 275 705 heavy vehicles on our roads..

The three spheres of government spent about R10,6 billion on roads in the 2004/4 FY, with KwaZulu-Natal accounting for the highest expenditure

As it relates on road infrastructure, there has been a sizable growth from R5,1 billion in 1002/02 FY to R7.8 million in 2007/08 in 2004/05 and is expected to reach R12,0 billion by 2007/08.

The maintenance of roads takes a toll on the budgets of the provinces. In the 2004/5 financial year, provinces resealed 1583 kilometres of surfaced roads, re-gravelled 2557 kilometres and undertook routine maintenance of 189 138 kilometres on all categories of roads.

(Provincial Budgets and Expenditure Review, 1001/2 – 2007/08)

### 3.1.9 The Current Rail Infrastructure

The current rail network has a total: 20,384 km length in 2000, comprising of a narrow gaug of 20,070 km, a 1.067-m gauge of 9,090 km electrified and 314 km 0.610-m gauge (Wikepedia)

At its height, the South African rail infrastructure consisted of:

- 1000 station complexes with station buildings, sheds, workshops and houses and villages for railway staff (including recreational facilities) very large centralized workshops, operating and training facilities,
- 20 000 kilometres of track with more than 3000 sidings, 10 000 bridges and viaducts and 150 tunnels
- some of the world's oldest steam engines
- many electric and diesel electric engines and
- the world's longest trains and the most luxurious trains.[4]

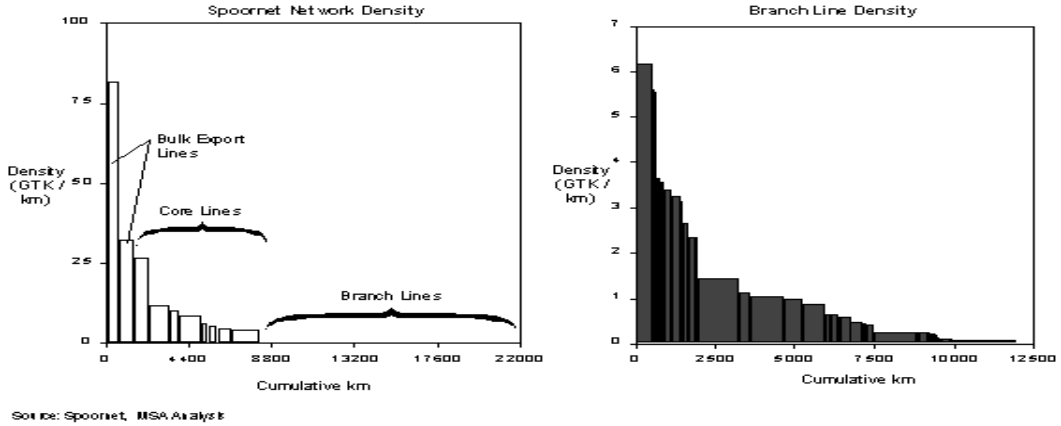
However, as in 2002:

- of the 20 000 kilometres only 10 000 now operate;
- 1250 of the 10 000 carry no traffic,
- 5750 kilometers carry low traffic
- 3110 kilometers carry only light traffic
- some have been closed;
- stations have been vandalized;
- tracks have been vandalized.[5]


[4] International Council on Monuments and Sites: Railway Heritage at Risk

[5] Ditto.

**The Rail Freight Network — Densities**




Source: Spoornet, MSA Analysis

10

**Policy Statement**

This policy will not apply in instances where no rail exists. This will mean that the Department (relevant units in brackets) will work with the rail and road haulers on the following issues:

(a) Commissioning a Pre-feasibility study to take stock of categories of cargo, their origins and destinations and to quantify supply and demand for haulage. (Freight Logistics and Corridor Development)

(b) Determine which rail runs parallel to the road network (Integrated Planning and Intersphere Co-ordination)

**(c)** Calculate the tonnage splits between the two. (Freight Logistics and Corridor Development

**(d)** Calculate a cost-benefit analysis of the shift from road to rail (Economic Analysis)

### 3.1.10 The Specific Tasks of Economic Analysis

(This section to be read in conjunction with 4.5 below)

The following pointers should assist the Economic Analysis Unit to arrive at a workable cost-benefit analysis.

- There should be a discernible reduction of costs, reduced transit times and increased reliability, grouped together as first order benefits
- Time cost-reductions that should be added to the ordinary standard analysis, taking into account such issues as operating costs, cost savings from accident reduction and driers wages.
- Anticipated demand curves before the implementation of policy and those that are likely to experienced after. The time frame over which this demand cure will rise should also be calculated so as to assure transport operators of the policy shift, even if such determinations will be over a considerable time.
- The transportation industry should realize reorganization effects, such as change in quality of outputs while the quality remains the same, the building up of more firms and warehouses, the creation of economies of densities and scale – all which could be grouped under second order benefits;
- Freighters should have additional reorganization of their companies which will include improved products, new products and convergence of existing products so that they have value add and multi-purpose.