

# A long hard road?

Urban freight transport challenges facing South Africa (writer: Hans W Ibtmann)

**U**rbanisation, coupled with sustained economic growth, implies that more and more goods and commodities need to be supplied to urban areas. This trend has been observed world-wide in the last number of years.

Whereas researchers in the past have shown very little interest in the increasingly severe freight transport problems facing urban areas, there is now growing interest in the logistics of collection and delivery services in towns and city centres.

## Urban freight transport is receiving more and more attention for a variety of reasons:

- Total cost of freight transport and logistics is significant and has a direct bearing on the efficiency of the economy. With rising fuels costs these are increasing even further.
- It is critical for the service and retail industries, which are essential for wealth creation.
- The freight transport industry is a major employer.
- It contributes to the competitiveness of a region.
- It is fundamental to sustaining quality lifestyles and uplifting the poor.
- Within towns and city centres it has negative social and environmental effects. High levels of congestion contribute significantly to this.

Freight operators have to deal with a number of challenges in urban areas. In the major urban areas of South Africa, high traffic volumes and congestion are increasing day-to-day occurrences. Together with the inadequate road infrastructure, poor driver behaviour and high number of traffic accidents, this adds to the frustration freight operators have to deal with.

In addition, operators are confronted with problems associated with crime, vehicle access restrictions and the lack of proper unloading facilities. These challenges are compounded by customer/receiver-related

problems such as queuing, unwillingness to have scheduled deliveries and a general lack of understanding within the retailing fraternity of the problems faced by the freight transport industry.

## Shift from rail to road

Over the last ten to fifteen years there has been a massive shift of freight from rail to road. Currently around 80% of freight in South Africa is transported by road.

The road infrastructure, although still fairly modern and well maintained in the urban areas, is totally inadequate. There are just too many cars/vehicles on the roads and this situation is aggravated by the lack of efficient public transport.

Our road infrastructure is starting to suffer because of lack of proper maintenance, which is adding to the high cost of logistics because of vehicle damage and the added time to deliver goods.

While roads authorities have commenced with a road expansion programme by inter alia adding lanes to existing highways, the question remains whether this is sufficient.

With an annual average increase of 8% in the number of vehicles on the roads, expansion is not going to relieve the problem; in fact, it is going to get worse. The current early-morning, late-afternoon congestion is going to stretch across the entire day, seven days a week, with energy problems complicating things even further.

A comprehensive "systems approach" is required to address this problem through the introduction of reliable public transport systems such as bus services and commuter trains, as well as programmes to encourage people to use the facilities – a total "culture" change is required.

The high fuel prices could "force" this change to take place at a faster rate than would otherwise have been the case. Much of the investment that will be required for this will have to come from the authorities at national, provincial and local level.

All of the above are adding to logistics costs. The CSIR, in its Annual State of Logistics survey, has calculated that logistics costs in the country are above 15% of GDP, much higher than that of comparable countries. Furthermore, the World Bank in its recent Logistics Competitiveness survey rates South Africa 24th in the world, using seven different indicators. Whereas this is a very good rating for the country, the worst indicator for South Africa is its internal logistics cost, where it rates 130th in the world.

## Logistics/supply chain management

Freight transport operators are constantly endeavouring to drive down logistics cost and increase their services to their clients - this is the essence of logistics/supply chain management.

In an environment as described above, this is going to be very difficult, and, as indicated, the situation is not going to improve, in fact, it is going to worsen.

Creative and innovative solutions to these challenges are therefore required. In this regard South Africa can learn from a project called BEST Urban Freight Solutions (BESTUFS), aimed at sharing the best urban freight practices in a number of European cities.

The project was aimed at "identifying, describing and disseminating best practices, success criteria and bottlenecks of urban freight transport solutions". Many of these best practices can be used in the South African context or can be adapted for South African circumstances.

As a start, one of the first and critical aspects that needs to change in the local context is the requirement that operators, retailers and all other role players in South Africa will need to start

collaborating and integrating their activities around the supply chain. It is not going to be easy to achieve this because there is still the overarching mindset in the country that companies should compete fiercely with one another. However, by collaborating and integrating activities, companies will still be able to compete, but at the same time reduce costs to the benefit of all those involved. Secondly, some of the good practices from the BESTUFS project can be considered.

**These include:**

- Freight vehicle access and loading in urban areas;
- Efficient usage of infrastructure; examples include truck lanes, on-street loading bays, night deliveries, etc;
- Guidance on measures for goods vehicle access and loading in urban areas;
- Technology in urban freight such as ITS (Intelligent Transport Systems);
- Environmentally-friendly vehicles;
- Enforcement issues; and
- Joint working between public and private sectors.
- Last-mile solutions; and
- Urban consolidation centres.

Last-mile solutions are referred to as deliveries in inner cities and also home deliveries, which are starting in the major South African cities. These are becoming more and more difficult for freight transport operators in South Africa.


Various suggestions and solutions to improve the last-mile channel have been developed. It is critical to design the supply chain for this last mile as efficient and effective as possible. Major opportunities exist for collaboration, because not all the operators need to deliver on this last mile – deliveries from various companies can be consolidated and only one truck needs to deliver to the final destination.

This is where the concept of urban consolidation centres (UCCs) becomes very useful. These are “logistics facilities situated in relatively close proximity to the geographical area that it serves, to which many logistics companies deliver goods destined for the area from which consolidated

deliveries are carried out within the area”. Here, collaboration becomes critical.

Consolidated deliveries implies all, or most of the companies that supply goods to a store will collaborate and consolidate all their freight destined to the store into one truck, which then delivers to the store.

This will reduce road congestion as well as the logistics costs associated with the delivery of the goods to the particular store. In addition, the supply chains used will have to be built on the following four pillars, as suggested by Martin Christopher at a recent conference: the supply chains should be reliable, resilient, responsive, and built on relationships within the supply chain.

A number of challenges facing South African freight transport have been highlighted. To address these, innovative and creative solutions will be required, a number of which have been suggested above. In addition, collaboration will be essential and the private and public sectors will need to interact, work together, develop joint solutions and have the same vision for the future. 

*(Hans W Ittmann is Acting Executive Director, CSIR Built Environment).*

