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BRIEF

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Low Carbon Frameworks: Transport

PHOTO: MAD S BOEDKER



EMPLOYMENT IN THE SOUTH AFRICAN TRANSPORT SECTOR

This briefing paper has been developed to provide a high level overview of employment across the South African transport sector. The information presented in this paper was drawn from a variety of sources, including statistical services, expert knowledge and literature in the public domain.

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Introduction

One of the aims of WWF's work in the transport sector is to understand the implications of a transition to lower carbon alternatives for the non-energy sectors of the economy and society. It is important to understand employment in the sector, so as to anticipate where a low-carbon transition might lead to the greatest job losses or job creation.

No consistent, high-quality data set of employment distribution figures across the sector is available in South Africa. The various sources used to compile this briefing differ in terms of scope (i.e., what is and is not included in a sub-sector's employment figures) and reporting years. So this document should be read as a summary of existing data, providing an indication of transport employment in South Africa, but not as a definitive assessment of employment in the sector.

9%

OF COMMUTERS USE
BUS SERVICES

PHOTO: WIKIMEDIA COMMONS



A commuter bus in Tshwane.

Overview: The Quarterly Labour Force Survey

The Quarterly Labour Force Survey published by Statistics South Africa provided the breakdown of employment in the transport sector in South Africa as shown in Table 1. These figures should be treated with caution, however, as the survey was not designed to provide statistical representivity at such great disaggregation and so this level of resolution carries considerable uncertainty (Mosiane, 2012). The inclusion of the telecommunications sector in the StatsSA sector definition undermines the usefulness of the aggregated total employment.

Employment in Transport Sub-Sectors from the Quarterly Labour Force Survey (TETA, 2011)

Type	Formal	Informal	Total	Percent
Railway transport	33,000	2,000	35,000	5%
Other land transport (Road)	289,000	164,000	453,000	59%
Sea and coastal water transport	4,000	-	4,000	1%
Air transport	18,000	1,000	19,000	2%
Supporting and auxiliary transport activities, activities of travel agencies	89,000	1,000	90,000	12%
Postal and related courier activities	56,000	-	56,000	7%
Telecommunication	85,000	25,000	110,000	14%
TOTAL	574,000	193,000	767,000	100%

* In this survey the informal sector comprises: (i) employment in establishments with fewer than five employees, where income tax is not deducted from salaries/wages; (ii) employers, own-account workers and unpaid helpers in household businesses who are not registered for income tax or VAT.

What is interesting to note here is the high level of informal employment in the “other land transport” category, which dominates the sectoral employment figures. This could well be attributed to employment in the taxi industry, although this surmise could not be confirmed.

Whilst this table provides a valuable overview of employment between modes and the formal and informal sectors, unfortunately it does not distinguish between passenger and freight transport. So we should consider some other estimates of employment by sub-sector.

472 MILLION
COMMUTER RAIL
TRIPS IN 2011, USING
PRASA SERVICES

Passenger transport

Passenger transport includes rail, road (passenger buses and taxis) and air transport. It is difficult to disaggregate long-distance and urban transport employment for rail and road.

Passenger rail is primarily operated by the Passenger Rail Agency of South Africa (PRASA), which employed 15,000 people in the year to March 2011. PRASA carried 472 million commuter passenger trips and 1.6 million long-distance passenger trips in that year (PRASA, 2011). These figures include PRASA-owned long-distance bus services.

SATAWU has estimated that there are 50,000 people employed in providing passenger bus services (Barrett, 2011), and that about 9% of commuters use bus services (DoT, 2005).



PHOTO: WIKIMEDIA COMMONS

Metrorail commuter train in Cape Town.

62%
**OF ALL PUBLIC
 TRANSPORT USERS
 ARE USING MINIBUS
 TAXIS**

The minibus taxi industry plays a major role in public transport, with 25% of all commuters (including private transport commuters) using taxi services (DoT, 2005), or some 62% of all public transport users (Barrett, 2011). Due to the informal nature of the minibus taxi industry, there is limited data from which to draw employment figures. SATAWU has estimated that the industry employs 250,000 people (Barrett, 2011). This number appears plausible, given that there are 120,000 registered taxis (TETA, 2011), and making allowances for unregistered taxis, as well as support staff (touts, marshals, administrators, etc.).

StatsSA estimates that there are 18,000 employees in the air transport sector (StatsSA, 2011). On the other hand, SATAWU has estimated that there are 50,000 employees in the aviation industry (Barrett, 2011). The discrepancy arises from the inclusion of certain supporting services in the latter figure, such as airport workers, travel agents, etc. The state-owned airline South African Airways employs 10,000 people, although a number of other airlines also operate in South Africa (SAA, 2011).



PHOTO: SHUTTERSTOCK

The maritime sector employed 60,000 in 2011.

Freight transport

Transnet Freight Rail carried 182.1 Mt of freight over 2010-11 (Transnet, 2011), or 113 billion tonne-km (in 2010). This accounts for only 11.2% of tonnage transported, but 29.8% of all tonne-km moved overland in South Africa (excluding pipelines). Road freight carried the other 70.2% of tonne-km moved, 1,446 Mt or 256 billion tonne-km in 2010 (CSIR, 2011). Employment in the surface freight industry is uncertain but some indications are as follows:

- Transnet Freight Rail employed 24,000 people in their financial year ending March 2011.
- SATAWU has estimated that there are 300,000 workers in the road freight industry, including transport workers in other sectors working in-house in logistics operations.
- A StatsSA survey of registered businesses estimated only 103,000 workers in surface freight (Barrett, 2011; StatsSA, 2011).

Looking at ports and the maritime sector, Transnet Port Terminals employed 6,000 people in 2011 (Transnet, 2011), but total port employment would be much higher than this, given the many other actors in the sector. Richards Bay Coal Terminal, for example, employs approximately 500 people (Richards Bay Coal Terminal, 2011). SATAWU has estimated that there is total employment of 60,000 people in the 'maritime' sector, mainly in the ports but also including seafarers and other employees (Barrett, 2011).

70.2%
**OF TONNE-KM
 MOVED WAS BY
 ROAD FREIGHT**

Pipelines are a relatively small employer. Transnet Pipelines employed 570 people as at March 2011 (Transnet, 2011). Transnet is the only provider of commercial pipeline transport in South Africa, but a number of other pipelines are operated for the sole use of companies in other sectors. These include Sasol gas pipelines, Moss gas pipelines around Mossel Bay, and the oil pipeline from Saldanha Bay to Cape Town. SATAWU has estimated that employment across all transport pipelines stands at 3,000 (Barrett, 2011).

PHOTO: ELISABE GELDERLOM

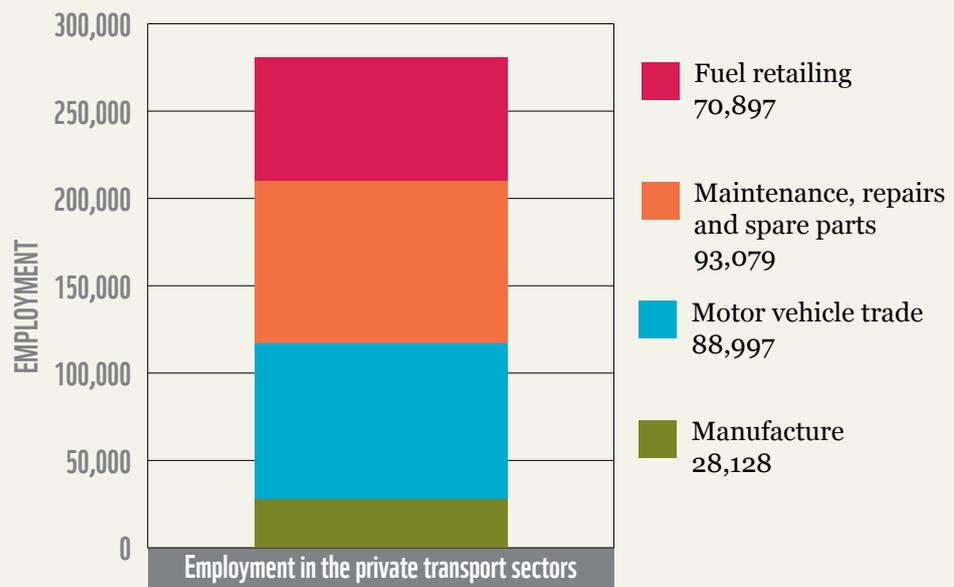


In the private transport sector, 71,000 people work selling fuel.

Supporting services

A large number of people are directly employed in the provision of transport services, but the transport sector also generates indirect employment in the various industries that provide supporting goods and services. These inputs vary greatly in their characteristics and employment created, and a rigorous analysis cannot be provided here. Nonetheless, it is interesting to consider a few selected statistics from certain key sectors and companies.

While there is insignificant direct employment in private transport, some 28,000 people were employed in the manufacture of new road vehicles in the fourth quarter of 2010 (including commercial vehicles) (NAAMSA, 2011). The motor vehicle trade (wholesale and retail sales) employed 89,000 people in 2009; maintenance, repair and sales of parts generated some 93,000 jobs, and a further 71,000 people were employed in the retailing of automotive fuel (StatsSA, 2011). Hence the indirect jobs generated by private transport in these associated sectors is substantial, at around 281,000. This is summarised in the graphic below.



281,000
INDIRECT JOBS
GENERATED BY
PRIVATE TRANSPORT

Transnet Rail Engineering employs some 13,000 people (Transnet, 2011) to provide train manufacturing and maintenance services.

Transnet National Ports Authority, which has a 'landlord' function to manage and administer the infrastructure of the eight major ports, employs some 3,500 people (Transnet, 2011).

Airports Company South Africa is a state-owned enterprise which owns and operates all the major airports of the country. It employed 2,500 people in 2011 (ACSA, 2011).

300,000

WORKERS IN THE ROAD FREIGHT INDUSTRY

Formal employment in the civil engineering sector is estimated at between 96,000 and 120,000 (Gildenhuis, 2013). This does not include workers contracted through labour brokers. At present, the available data does not separate transport-related infrastructural development from other civil engineering works, and the patterns of employment fluctuate considerably over time. In order to collate data for road maintenance, data would be required for each individual municipality. Therefore, the estimation of employment in transport-related infrastructure development and maintenance presents a significant challenge.

Although no statistics are currently available, bicycle trading and maintenance is expected to generate some employment in South Africa, although at present this is likely to be a very minor contributor to employment in the sector.

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This is one in a series of publications produced by WWF South Africa's Low-Carbon Frameworks programme, which explores the shift to a low-carbon economy. We seek solutions for emitting fewer greenhouse gas emissions and enabling a flourishing South Africa, which delivers developmental outcomes and social equity.

The programme includes a focus on transport. WWF's transport project aims to provide a platform, expertise and interactive modelling to support labour, business and government in engaging with the challenges implicit in the low-carbon transition. Consideration will be given to the three tiers of interventions which will be required to effect the transition of this sector, being to REDUCE movement of goods and people, SHIFT to low-carbon modes of transport, from private to public, from road to rail, and IMPROVE mobility services, and energy and fuel efficiency.

WWF

WWF is active in more than 100 countries, with almost five million supporters worldwide. Our mission is to build a future in which we all live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful production and consumption. In South Africa, we focus on an ecosystems-based approach to development, including work in the areas of marine, freshwater, agriculture, food, energy, transport and protected areas.

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100% RECYCLED



87%

of South Africa's transport emissions come from burning petrol or diesel in vehicles on our roads

767 000

total jobs directly involved in the transport sector in South Africa, of which 453 000 are in road transport. A transition to a low-carbon economy must ensure we create more jobs than will be lost. In general, environmentally sound approaches tend to be more labour-intensive.

18% TO 30%

growth in emissions from transport in South Africa over 2000 to 2007

13.1%

of South Africa's greenhouse gas emissions in 2007 came from direct emissions from the transport sector (being 46.3 Mt CO₂e), according to data collated by the World Resources Institute

R11.7 BILLION

externality costs of emissions from logistics in South Africa (all emissions, not limited to greenhouse gases). Externality costs are those currently paid by society at large, and not by companies. They include such elements such as the public health costs incurred.



	<p>Why we are here To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.</p> <p>www.wwf.org.za</p>
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