

PEOPLE AND TRANSPORT IN URBAN AREAS

Public transport systems in urban areas – such as buses and trains

- public transport –transport used by the public
- commuters –people who regularly travel between places

Public transport systems in urban areas may be owned and run by the local or provincial government who pay for the building and running of the system. The price people pay for tickets only covers a small cost of running most public transport systems.

Commuter trains in cities



Commuter trains are trains that carry people daily between their homes and places of work, school, or business, mainly in large cities.

Commuter trains mainly operate in large urban areas, including:

- Gauteng (Johannesburg, Pretoria and surrounding areas)
- Western Cape (Cape Town and surrounding townships)
- KwaZulu-Natal (Durban and nearby areas)
- Eastern Cape (Gqeberha/Port Elizabeth and East London)
- These services are mainly run by PRASA (Passenger Rail Agency of South Africa) through Metrorail.

Importance of Commuter Trains in South African Cities

Affordable Transport

- Train fares are cheaper than many other transport types.
- Important for low-income workers and learners.

Moves Large Numbers of People

- One train can carry hundreds of commuters at a time.
- Helps reduce pressure on roads.

Reduces Traffic Congestion

- Fewer cars and taxis on the roads.
- Helps ease traffic during peak hours.

Links Townships to City Centres

- Many people live far from workplaces.
- Trains connect townships with CBDs and industrial areas.

Problems Faced by Commuter Trains in South Africa

Poor Maintenance

- Old trains and damaged infrastructure.
- Frequent delays and breakdowns.

Safety and Security Issues

- Vandalism and theft of cables.
- Some stations and trains are unsafe.

Unreliable Service

- Trains do not always run on time.
- This affects workers and learners.

Overcrowding

- Too many passengers, especially during peak hours.
- Uncomfortable and unsafe conditions.

Commuter busses in cities

Commuter buses are buses that transport people daily between their homes and places of work, school, or other services in towns and cities.

Commuter buses operate mainly in urban areas and large towns.

Government-Subsidised Buses

- Operated by companies contracted by government
- Cheaper fares for commuters
- Important for low-income workers

City Bus Systems

- Some cities run modern bus systems:
- Rea Vaya (Johannesburg) AREYENG (Pretoria)
- My CiTi (Cape Town)
- GO! Durban (Durban)
- These are Bus Rapid Transit (BRT) systems with:
- Dedicated bus lanes
- Fixed routes and timetables



Importance of Commuter Buses

Affordable Transport

- Buses are cheaper than private cars
- Many workers depend on buses daily

Flexible Routes

- Buses can reach areas where trains do not operate
- Suitable for both short and medium distances

Reduces Traffic Congestion

- Fewer private cars on the road
- Helps ease traffic in busy cities

Supports Urban Economy

- Allows workers to reach jobs
- Helps businesses and services function

Problems Faced by Commuter Buses

Traffic Delays

- Buses are affected by traffic congestion
- Leads to late arrivals

Overcrowding

- Too many passengers during peak hours
- Uncomfortable travel conditions

Limited Coverage in Some Areas

- Not all townships or suburbs are well served
- Some people must still rely on taxis

Pollution

- Older buses contribute to air pollution

Commuter taxis in South Africa



Minibus taxis are small public transport vehicles that carry passengers daily between homes, workplaces, schools, and city centres.

They are the most commonly used form of public transport in South African cities. Minibus taxis operate in almost all South African cities and towns.

They link:

- Townships
- Suburbs
- CBDs
- Industrial areas

Importance of Minibus Taxis

Most Widely Used Transport

- Millions of people use minibus taxis every day.
- Especially important for workers and learners.

Flexible Routes

- Taxis can change routes quickly.
- They reach areas where buses and trains do not operate.

Frequent and Convenient

- Taxis run early morning until late at night.
- No fixed timetable – passengers do not wait long.

Creates Jobs

- Provides employment for:
 - Drivers
 - Conductors
 - Taxi association workers
- Supports Urban Economy
- Helps people get to work and schools on time.
- Keeps businesses operating smoothly.

Problems Facing Minibus Taxis

Safety Issues

- Some taxis are badly maintained.
- Reckless driving can cause accidents.

Traffic Congestion

- Large numbers of taxis increase road congestion in cities.

Overcrowding

- Taxis are often overloaded, especially during peak hours.

Pollution

- Older taxis contribute to air pollution.

Conflict and Competition

- Competition over routes sometimes leads to violence between taxi operators.

Transport issues



While transport is vital and people need it to operate daily, there are a number of issues associated with using transport.

Some of these issues include the cost of transport, traffic congestion

Pollution

These issues have a negative effect on the environment and people's health.

Cost for commuters

The cost to commuters refers to the money people spend daily or monthly on transport such as:

- Minibus taxis
- Buses
- Trains
- Fuel (for private cars)

Transport Cost Issues Faced by Commuters



High Daily Transport Costs

- Many commuters spend a large part of their income on transport.
- Low-income workers often spend 20–40% of their income on travel.

Long Distances Between Home and Work

- Due to apartheid-era planning, many people live far from city centres.
- Long distances = more trips = higher costs.

Increase in Taxi and Bus Fares

- Fuel price increases cause transport operators to raise fares.
- Commuters have no cheaper alternatives available.

Limited Affordable Public Transport

Trains are cheaper but often:

- Unreliable
- Unsafe

Many commuters are forced to use more expensive taxis.

Multiple Transport Changes

- Many commuters must use more than one type of transport (taxi + bus).
- Each change increases total travel cost.

Impact on Quality of Life

High transport costs lead to:

- Less money for food, education, and healthcare
- Stress and financial pressure
- People arriving home late due to long travel times

Traffic congestion

Traffic congestion happens when roads are overcrowded with cars, buses, taxis, and trucks.

Vehicles then move very slowly or get stuck, especially during morning and afternoon peak hours.



Causes of Traffic Congestion

Too many vehicles on the road

Rush hour traffic (people going to work or school)

Road accidents

Roadworks

Poor road planning

Public transport problems that force people to use cars or taxis

Effects of Traffic Congestion

People arrive late at work or school

Increased stress for commuters

Higher fuel costs

Air and noise pollution

Loss of working hours and productivity

Pollution

Pollution is the contamination of the environment with harmful substances that affect people's health, plants, animals, and buildings.



Exhaust fumes from motor vehicles contribute greatly to air pollution.

Exhaust fumes contain poisonous chemicals and gases such as carbon monoxide, lead and sulphur dioxide.

These chemicals can cause serious damage to people's health.

Types of Pollution Caused by Cars

- Air Pollution
- Cars release exhaust gases when they burn fuel.
- Harmful gases include:
 - Carbon monoxide
 - Carbon dioxide
 - Nitrogen oxides
- Smoke and small particles

Effects of air pollution:

- Breathing problems such as asthma
- Lung and heart diseases
- Smog in cities
- Contributes to climate change
- (global warming)

Noise Pollution

Cars, taxis, buses, and trucks create loud sounds.
Hooting, engines, and traffic jams increase noise levels.

Effects of noise pollution:

Stress and headaches
Hearing problems
Disturbs sleep and concentration

Public transit strategies

Urban areas across the world have developed different ways to deal with the transport issues caused by the increased size of city populations.



These are some of the solutions:

- rapid transport systems
- car-free zones
- bus and cycle lanes
- park and ride schemes
- subsidised public transport

Rapid transport systems

Rapid transit systems are the modern approach to improved commuter transport in many cities around the world including South Africa.

Rapid transit systems are usually separated from other modes of transport by either being underground, above ground, in dedicated lanes or on special tracks.

They are designed to move large numbers of people quickly around urban areas.

Case study: Gautrain Rapid Rail Link

The Gautrain Rapid Rail Link connects the two urban areas of Johannesburg and Pretoria, and also links both cities to OR Tambo International Airport.

Why was the Gautrain Rapid Rail Link developed?

- Increased traffic congestion between Johannesburg and Pretoria resulted in increased journey times on the N1 freeway.
- The increased number of vehicles on the road meant that there was more air pollution.
- It was very expensive to maintain the N1.
- There were more accidents.



Figure 8 The route of the Gautrain Rapid Rail Link

Objectives of the Gautrain Rapid Rail Link

The Gautrain Rapid Rail Link has the following objectives:

- to reduce the number of vehicles using the N1 freeway
- to increase people's mobility
- to improve the CBDs of Pretoria and Johannesburg
- to link existing transport systems
- to promote tourism.



Car-free zones



Some cities restrict the number of cars entering an urban area.

For example, they only allow cars with certain registration numbers to enter the city on a given day.

One day could be cars with even numbers on the registration plates and the next day could be cars with odd numbers on the registration plates.

Some parts of cities have been made car-free zones. Cars are not allowed in these parts of the city.

Only bicycles, pedestrians and certain kinds of public transport are permitted.

Bus and cycle lanes



Bus lanes are parts of roads that are reserved for buses.

In some cities parts of roads are made into bus lanes at very busy times of the day, such as rush hour.

Some cities promote the use of bicycles as a way of getting people around city centres.

Special bicycle lanes, which are a part of the road, are reserved for cyclists only.

Park and Ride schemes



Commuters travel to a certain point and then park their cars.

They then use public transport to get to their destination.

The thinking behind park and ride is to encourage commuters to only use their cars for part of a journey.

Cities that offer park and ride facilities provide commuters with a convenient way of integrating their car journey with public transport.

Subsidised public transport



Many local governments subsidise public transport.
This means that they help to pay for the running of the public transport systems.

Examples of subsidised transport include;

- the Cape Town BRT
- the Gautrain Rapid Rail Link.
- Mangaung transit in Bloemfontein