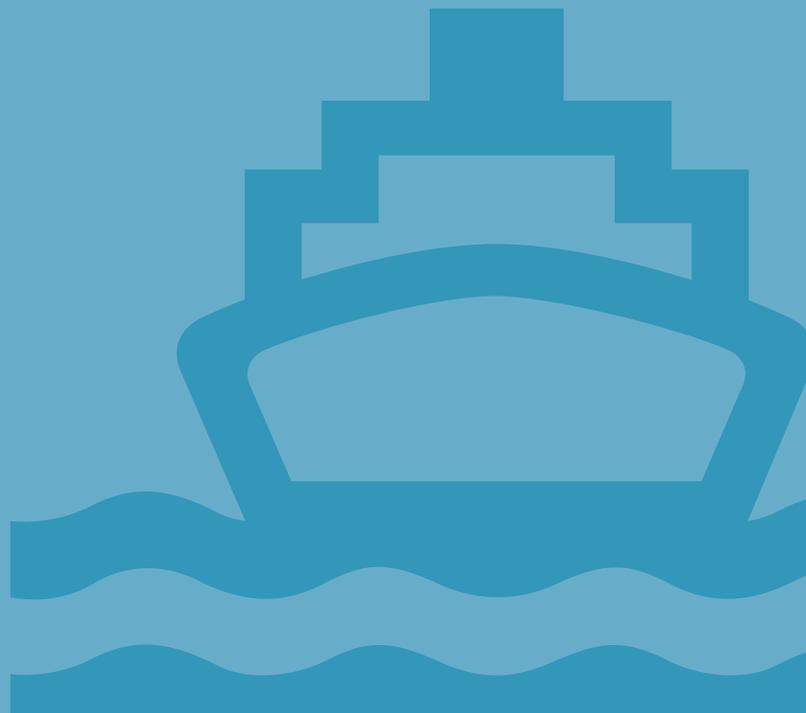


**FOLLOW-UP OF THE SWEDISH  
TRANSPORT POLICY OBJECTIVES**

MAY 2004

SWEDISH INSTITUTE FOR TRANSPORT AND COMMUNICATIONS ANALYSIS



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## PREFACE

SIKA has been commissioned by the Government to make an annual follow-up of developments in the transport sector and whether the overall and subsidiary objectives of transport policy will be fulfilled.

The overall objective is to ensure socially and economically efficient and long-term sustainable transport resources for the public and industry throughout Sweden. There are also subsidiary objectives for an accessible transport system, regional development, gender equality, high transport quality, safe traffic and the environment.

In this report for 2003, we note that developments for most of the subsidiary objectives are moving in the wrong direction, in particular the objectives for safe traffic and the environment. However, the quality of the transport system is consistently high and stands up well to international comparison.

This report is a summary of SIKA Report 2004:3. It is based on material from the National Rail Administration, the Civil Aviation Administration, the Swedish Maritime Administration, the National Road Administration and the National Public Transport Agency.

SIKA has produced reports of this kind since 1999. All reports from SIKA have been published on the agency's website, [www.sika-institute.se](http://www.sika-institute.se).

Stockholm, June 2004

*Kjell Dahlström*  
Director-General

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Swedish Institute for Transport and Communications Analysis, SIKA

[sika@sika-institute.se](mailto:sika@sika-institute.se)

[www.sika-institute.se](http://www.sika-institute.se)

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## THE TRANSPORT POLICY OBJECTIVES AND THE SUBSIDIARY OBJECTIVES...

The Riksdag and the Government have decided that Swedish transport policy is to be guided by an overall objective and six subsidiary objectives. Transport policy is also guided by a number of basic principles. One prominent principle is that infrastructure charges are to be based on socio-economic marginal costs. Individual users and commercial providers of transport are to pay the external marginal costs that their use of the infrastructure gives rise to, through taxes and other charges. Other bearing principles are freedom of choice for transport users and collaboration between different means of transport and modes of transport in combination with effective competition. A further guiding principle is

that decisions on transport are to be made at as decentralised a level as possible.

The overall objective of transport policy is to ensure socially and economically efficient and long-term sustainable transport resources for the public and industry throughout Sweden. The objective is intended to achieve a transport system, which is environmentally, economically, culturally and socially sustainable.

There are six subsidiary objectives linked to the overall objectives. These concern an accessible transport system, regional development, gender equality, high transport quality, safety and the environment. All these objectives are intended to be long-term and continuous in a longer time perspective.



## ... AND HOW THEY HAVE BEEN COMPLIED WITH TO DATE

The development of the overall objective can only be followed up to a limited extent. The subsidiary objectives where there is primarily access to information that can be followed up are investments and the cost accountability of transport.

SIKA's follow-ups show that there are clear indications that the present Swedish transport system does not use the resources available in such a way as to provide the greatest possible benefit to society. The results therefore indicate that there is plenty of scope to improve goal compliance within the area of socio-economic efficiency. However, the development towards long-term sustainability

and the distribution effects of the present transport resources are difficult to assess.

As regards the subsidiary objectives, SIKA notes that developments in many areas cause concern. This applies to road safety where the zero vision still seems remote, and, in the field of the environment, increasing emissions of carbon dioxide and an increase in the number of people disturbed by noise. However, the trend has been positive for the subsidiary objectives of an accessible transport system and high quality transport, while the development of the subsidiary objectives for regional development and gender equality are less certain.

Overall objectives	Development towards the long-term objective	
	It is possible to make an assessment of the development of the objective, at any rate for the part concerning socio-economic efficiency where SIKA notes that the current transport system deviates markedly from a socio-economically optimal state.	
Subsidiary objectives	Development towards long-term subsidiary objectives in 2003	Are the subsidiary objectives being complied by decisions made?
Accessibility (for disabled)	Yes	No
Regional development	Uncertain	Objective lacking
Gender equality	Yes?	Objective lacking
Transport quality	Yes	No
Safe traffic	No	No
Environment		
- Effect on climate (CO <sub>2</sub> )	No	No
- Air pollution (S, NO <sub>x</sub> , VOC)	Yes?	No?
- Noise	No	No
- Ecocycle adaptation	Uncertain	Objective lacking
- Impact on natural and cultural environment	Uncertain	Objective lacking

## ACCESSIBILITY AND REGIONAL DEVELOPMENT

*"The transport system will be designed so that the basic transport needs of the public and industry may be satisfied."*

*"The transport system will promote positive regional development by both evening out differences in opportunities of various parts of Sweden to develop and also by counteracting disadvantages of long transport distances."*

It is difficult to monitor development of accessibility and regional development in the transport system. Improved accessibility often leads to an expanded labour market and other increased freedom of choice, which results in longer travel. An increase in travel times is thus not a self-evident indication of deterioration in accessibility.

SIKA makes the assessment that development towards an accessible transport system, viewed over several years, is moving in the right

direction. Travel times in road traffic on the national roads are decreasing. The services offered by public transport are increasing and more and more footpaths and cycle paths are being built. For the great majority of people, access by car to the nearest accident and emergency hospital and airport is good. An increase in the number of train services has also led to improved access in the rail transport system.

However, there has been a further decrease in access for domestic air services. This deterioration is primarily due to changes in departure and arrival times and closure of air routes.

It is a widespread view that new infrastructure investments are of great importance for the development of a region. However, SIKA has noted in a number of contexts that these investments often do not have such a great effect as expected. Surrounding world factors such as growth and car ownership are more important for commuting to work than new infrastruc-



ture. SIKa considers therefore that the major infrastructure investments planned up to 2015 will probably not contribute to regional growth and development to any greater extent.

It is also doubtful whether improved transport can contribute at all to checking the reduction of employment that is taking place in the sparsely populated areas of Sweden. There are two reasons – improved transport facilities in the densely-populated regions leads to a decrease in population and employment in more sparsely populated regions, and growth and structural transformation result in greater reductions than can be counteracted by any positive effects from improved transport.

Access for the disabled has been improved and many disabled people state that they are able to travel, although with difficulty. Many still opt to refrain from travel. The biggest reason for this is that they need to be accompanied during the journey. There is a subsidiary objective that public transport is to be available for the disabled by 2010. The objective will probably not be achieved, although awareness of this issue is a lot higher than it was a few years ago.

## GENDER EQUALITY

*“The transport system shall be designed so that it meets both women’s and men’s transport requirements. Women and men shall have the same opportunities to influence the construction, design and management of the transport system, and their values shall be given equal weight.”*

It is difficult to follow up development of the objective for gender equality in the transport system, since there is lack of documentation in this area. SIKa and the transport agencies, i.e. the National Rail and Road Administrations, the Civil Aviation Administration and the Swedish Maritime Administration have, however, started activities to obtain better material. For 2003, SIKa can note that men, as in previous years, predominate in boards, higher posts and working groups throughout the entire transport sector. Women’s perspective and values thus continue to be poorly represented in planning, decisions and administration. In other words, they have poorer opportunities to influence the design of the transport system.



## TRANSPORT QUALITY

*“The design and operation of the transport system will allow high transport quality for the public and industry.”*

The subsidiary objective of a high quality transport system is measured in certain general quality aspects: predictability, safety, flexibility, comfort, accessibility and access to information. The development of transport quality has been predominantly positive in 2003. Roads are of an increasingly high standard and thus access and comfort are increasing. A number of measures have been implemented to provide correct information to a greater extent to travellers, transport providers and the

public. The terrorist attack against the World Trade Center in the United States has been followed by security measures that have entailed an increase in the level of security for transport compared with previous years.

Delays have increased both for rail goods transport and for air transport, which means that predictability can have declined somewhat. Congestion has also increased on the roads in larger cities, leading to delays and reduced predictability for all those using the system. However, SIKKA makes the assessment that the Swedish transport system is of overall high quality, which stands up well in an international comparison.



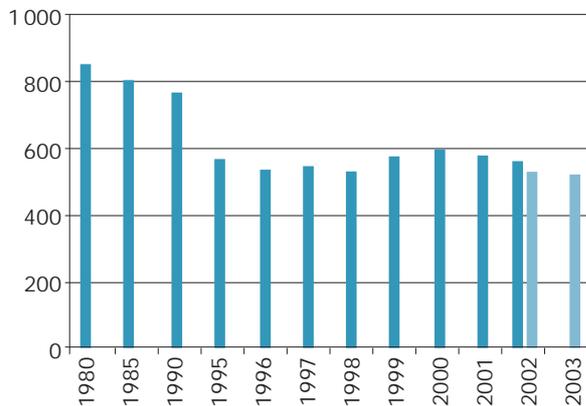
## SAFE TRAFFIC

*“The long-term objective for traffic safety is that no one should be killed or seriously injured as a result of a traffic accident. The design and operation of the transport system must be adapted to the demands following on from this.”*

As regards the subsidiary objective for safe traffic, developments in road traffic continue to cause concern. Over 500 persons died and more than 4 600 were seriously injured in road traffic in 2003, figures that are largely unchanged compared with 2002. The zero vision,

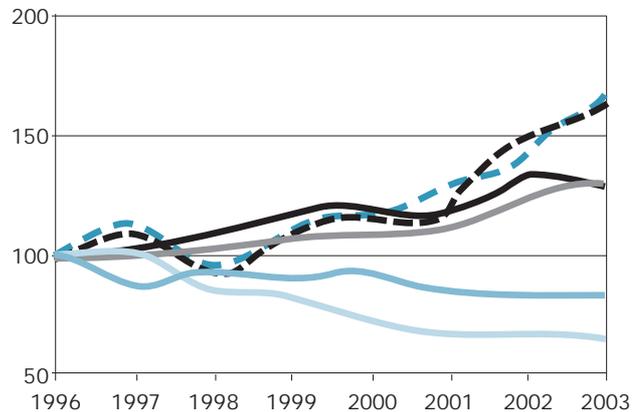
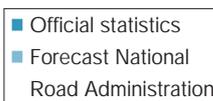
i.e. that nobody should be killed or seriously injured on the roads seems to be increasingly remote. SIKA notes that further measures are required, including more traffic surveillance and demands for alcolocks to achieve the transport policy objective for road safety.

Safety on the railways, in air and sea transport has, however, been high for a number of years. SIKA therefore does not consider that any transport policy objectives are required for these modes of transport.



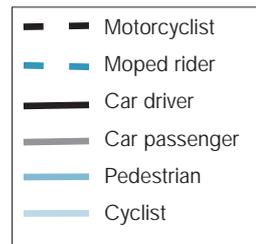
Number killed in road traffic 1980–2003.

Source: SIKA Statistik Vägtrafikskador 2002 and National Road Administration's Forecasts for 2002 and 2003.



Number of deaths and seriously injured road traffic by group of road user (index 1996=100).

Source: SIKA Statistik Road traffic Injuries (Vägtrafikskador) 2002 and preliminary statistics from the National Road Administration for 2003.



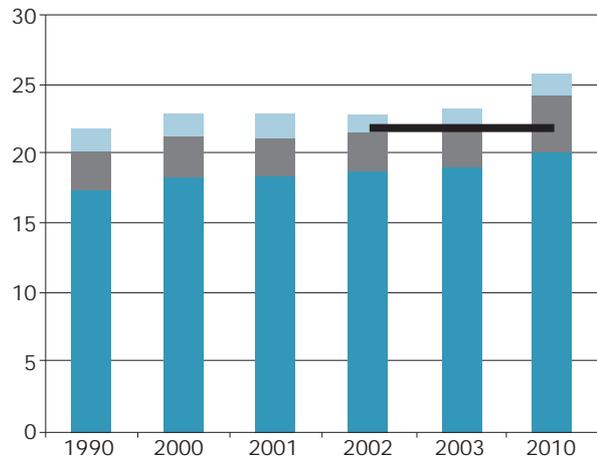
## GOOD ENVIRONMENT

*“The design and operation of the transport system will be adapted to the requirement of a good living environment for everyone, where nature and the environment are protected from damage. The effective management of land, water, energy and natural resources must be promoted.”*

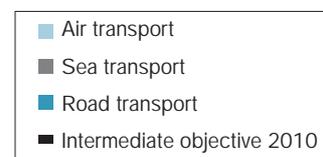
Emissions of carbon dioxide by the transport sector have increased by just under six per cent in 2003 compared with emissions in 1990. The increases in emissions are above all from heavy lorries. An additional explanation is that cars are becoming increasingly heavy with an increase in engine power, which counteracts the more efficient use of fuel in recent years. The emission target for sulphur dioxide will probably not be achieved either, while the objective for nitrous oxide is more uncertain. The objective for hydrocarbons will probably be achieved, however.

The number of persons disturbed by noise continues to increase due to increased traffic. Moreover, an increasing number of municipalities have granted planning permission to build housing adjacent to roads affected by noise.

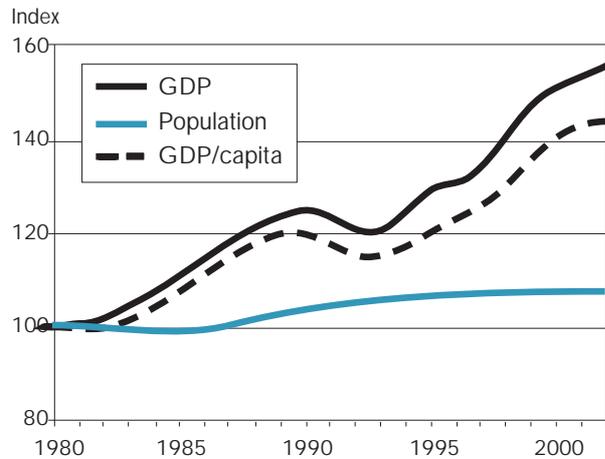
The air quality in built-up areas in Sweden has improved in recent decades due to decreased emissions from traffic, industry and households. However, no further improvements have taken place in the most recent years and the quantities of air pollution in winter 2002/2003 were higher than for a number of years. The quantities are affected by climatic variations, although the increase in vehicle kilometres has probably also counteracted the environmental benefits achieved by exhaust cleaning and cleaner fuels.



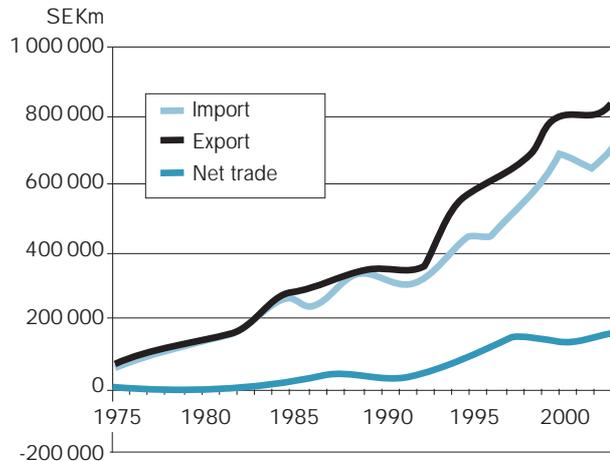
Emissions of carbon dioxide by the transport sector, million tonnes. Emissions have increased by just under six per cent since 1990. Source: SIKÅ.



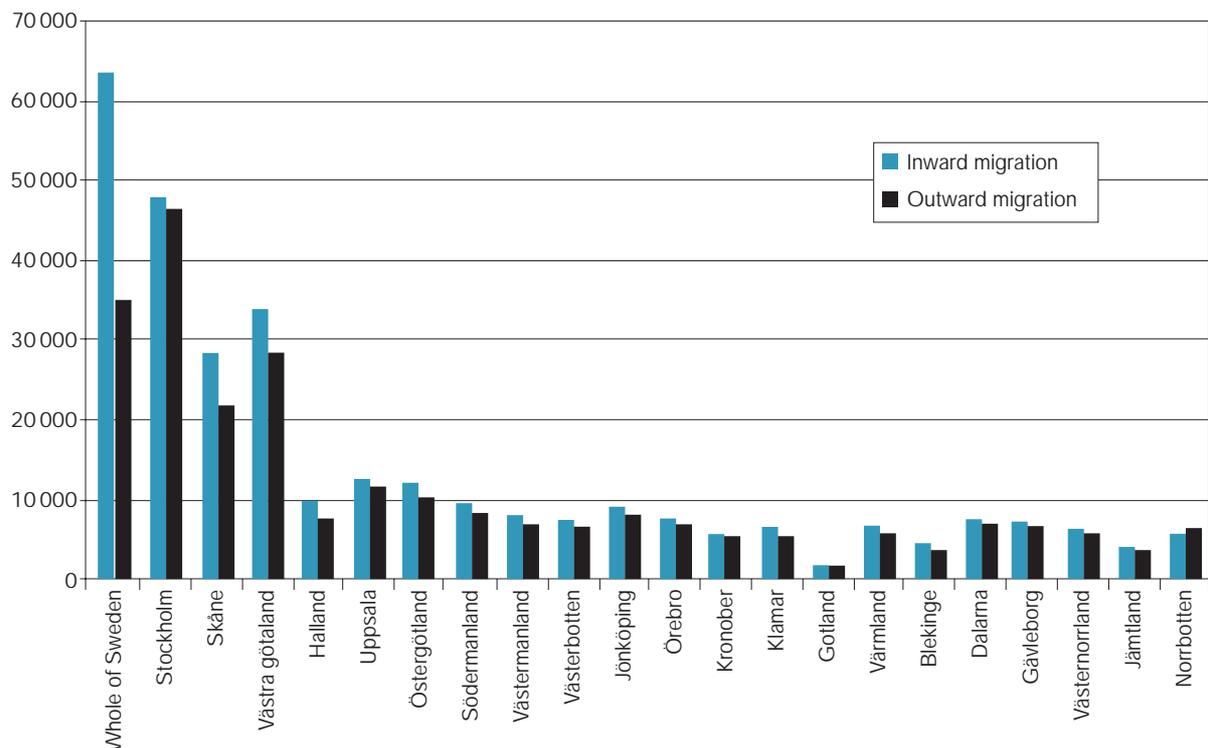
## POPULATION, PLACE OF RESIDENCE, ECONOMY



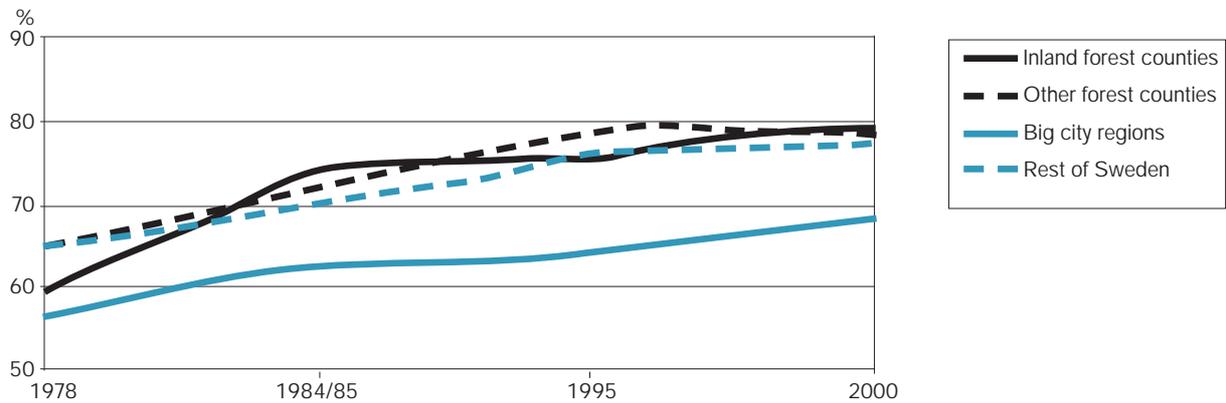
**Development of GDP and population.** The average economic growth in the period 1995 to 2002 was 2.2 per cent per year. Growth during the whole period 1980 to 2002 was 2.4 per cent per year. The population has at the same time increased from 8.3 million in 1980 to almost 9 million in 2003. Source: SIK/Statistics Sweden.



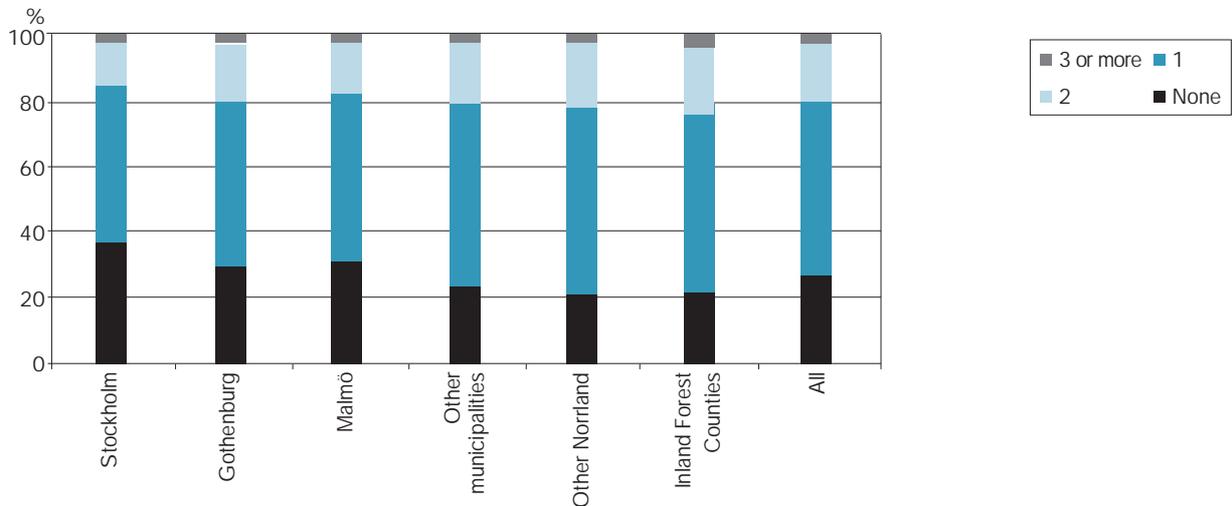
**Foreign trade in SEK million.** Foreign trade has increased greatly since the early 1990s. Export is increasing more rapidly than import and Sweden has had a surplus in the balance of trade since the early 1990s. Source: Statistics Sweden.



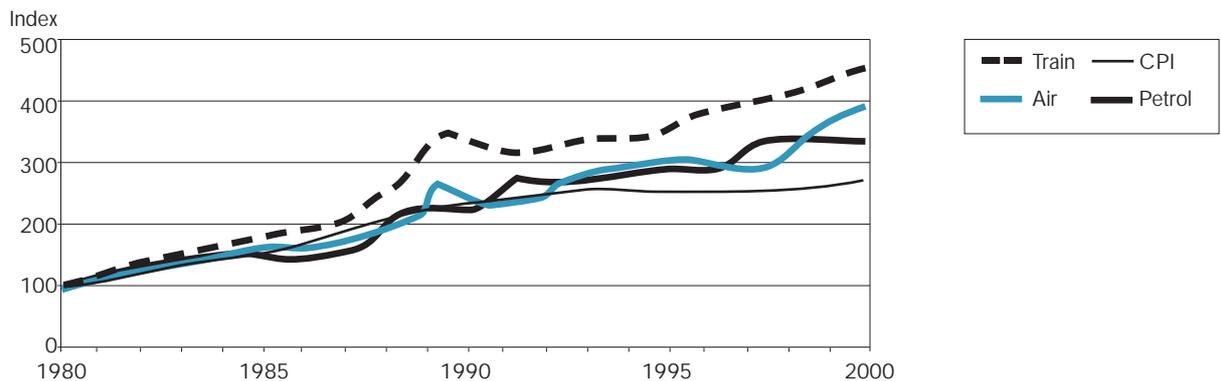
**Changes in population in counties in 2003 (population increase).** The population increased most in the big cities, i.e. The County of Stockholm, Skåne and Västra götaland. There was also a relatively large increase in population in counties in the vicinity of big cities, such as Halland, Uppsala and Södermanland. Norrbotten is the county with the largest reduction in population. Source: Statistics Sweden



**Proportion of persons with a driving licence and access to a car in the household.** The proportion of persons aged over 18 with a driving licence and access to a car in the household has increased considerably between 1978 and 2001 in Sweden. In all, the proportion has increased from 61 per cent to 74 per cent in the whole country during this period. The proportion of women with a driving licence and access to a car has increased from just under 45 per cent to just under 65 per cent, which is an increase of twenty percentage points. For men, the proportion has increased in the same period from just over 75 per cent to over 80 per cent, which is an increase of five percentage points. In regional terms, the inland forest counties have had the strongest development with an increase from approximately 60 per cent to almost 80 per cent. The diagram also shows that there are relatively large differences in the proportion with driving licences and access to car between regions. Source: RES 2001.

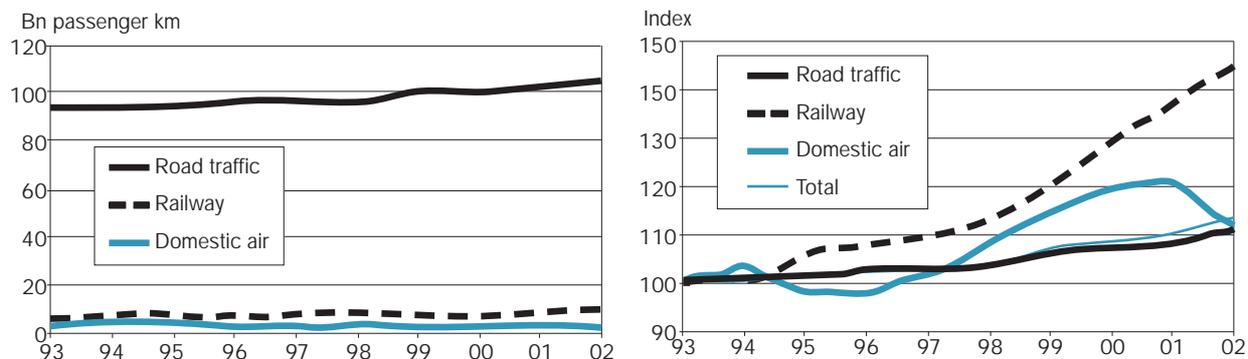


**Number of cars per household by region, 1999–2001.** Over 70 per cent of households in Sweden have access to at least one car and every fifth household has more than one car. The proportion of households without a car is largest in the big cities. Source: RES 2001.

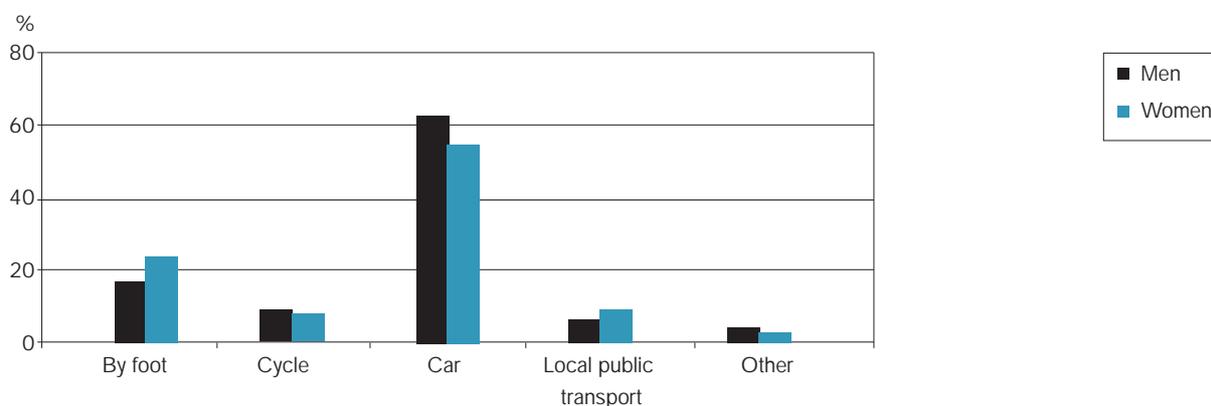


**Price trend for transport in Sweden, 1980–2003.** Prices for private travel by train (ticket prices) have increased more quickly than prices for air travel (ticket prices) and car (petrol prices) in the past 20 years. In 2003, air prices increased most, however. Transport prices for private travel have generally undergone a greater increase in prices than other consumer prices. While air and train prices increased by 7.5 and 6.7 per cent respectively between 2002 and 2003, the consumer price index (CPI) increased by 1.8 per cent.

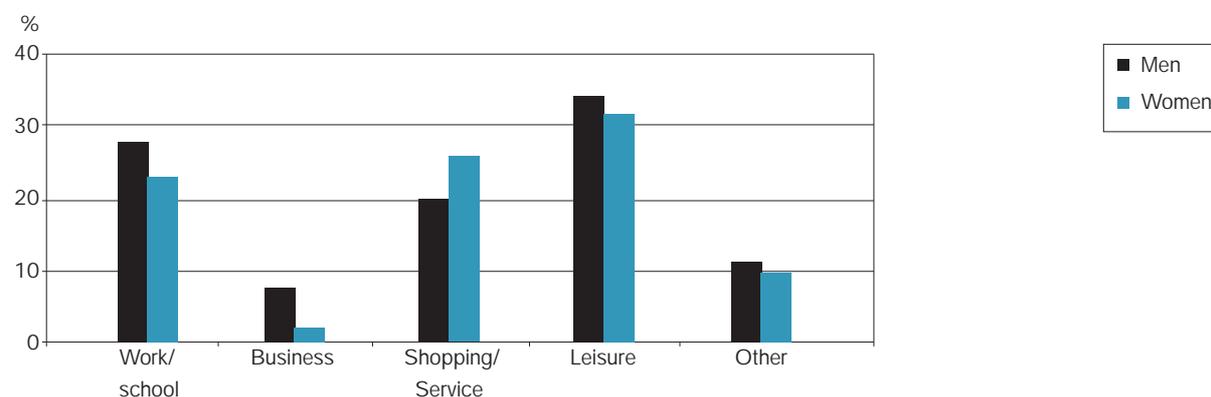
## PASSENGER TRAVEL



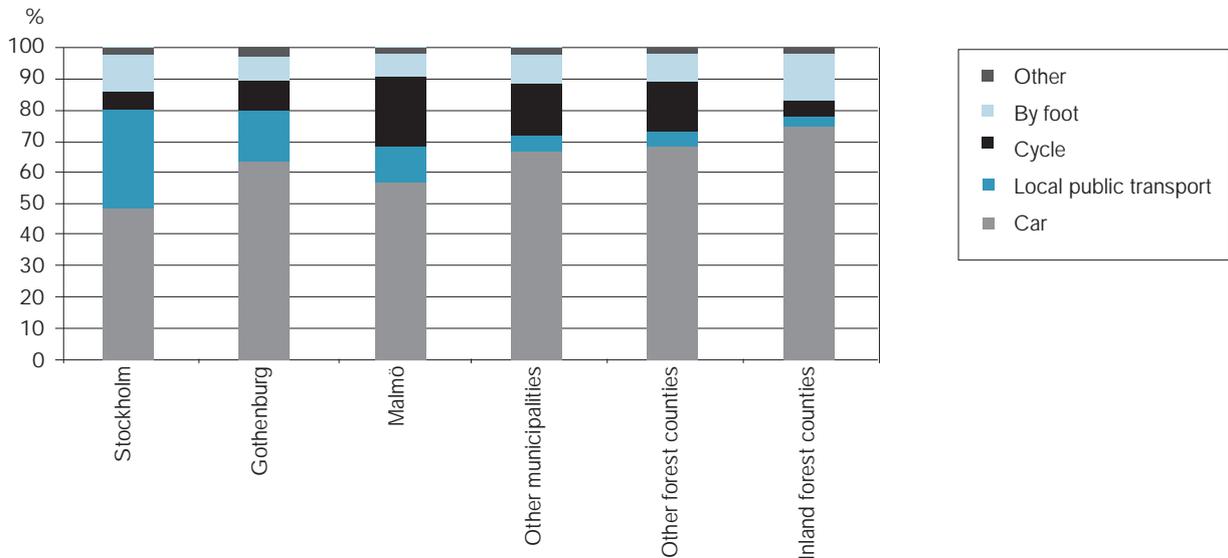
**Development of passenger transport.** During the ten-year period 1993–2002, the combined increase in passenger kilometres for road traffic, railway and domestic air was 13 per cent. The increase was greatest for rail transport which increased by 45 per cent, while road transport increased by 11 per cent and domestic aviation by 12 per cent. Measured in absolute figures, road transport increased by 10.4 billion passenger kilometres, which is more than the whole transport performance by rail in 2002. Passenger transport performance totalled approximately 125 million passenger kilometres in 2002. Car transport alone accounts for approximately 80 per cent of the passenger kilometres and road transport as a whole for almost 85 per cent. Source: SIKA.



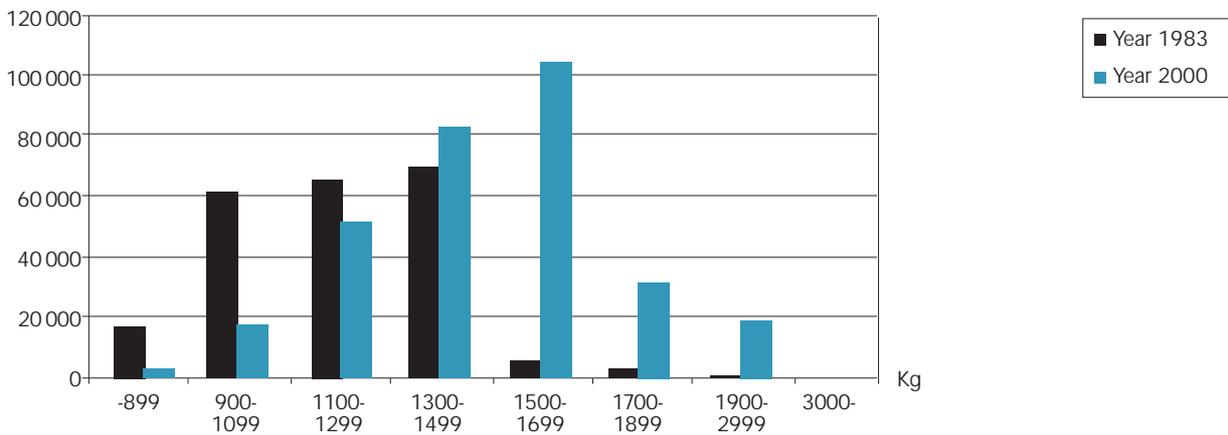
**Journeys by mode of transport.** The number of journeys by mode of transport and sex, per cent, 2001. Most journeys in Sweden are made by car. In 2001, almost five billion journeys were made by car, which is approximately 60 per cent of all journeys. The category Other includes air and train travel. Source: RES 2001.



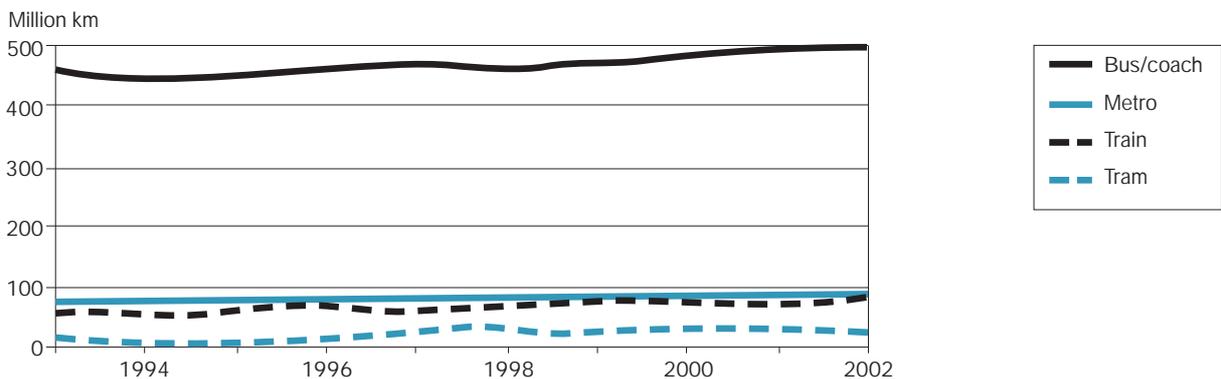
**Journeys by purpose.** Domestic travel, per cent, 2001. During a year, the Swedish population in the ages 15 to 84 made approximately 8 billion domestic journeys for different purposes. Leisure travel accounts for over a third of all journeys made. Men travel considerably more on business and to get to and from work than women, while women make more journeys for shopping and service (including child-care). Overall, men make somewhat more journeys than women. Source: RES 2001.



**Work journeys by region and mode of travel**, average 1999–2001. The distribution of work journeys by mode of travel varies greatly between different regions. The most common means of travel to work is car in the whole of Sweden. The proportion of work journeys by public transport is greatest in Stockholm. The category Other includes air and train travel. Source: RES 2001.

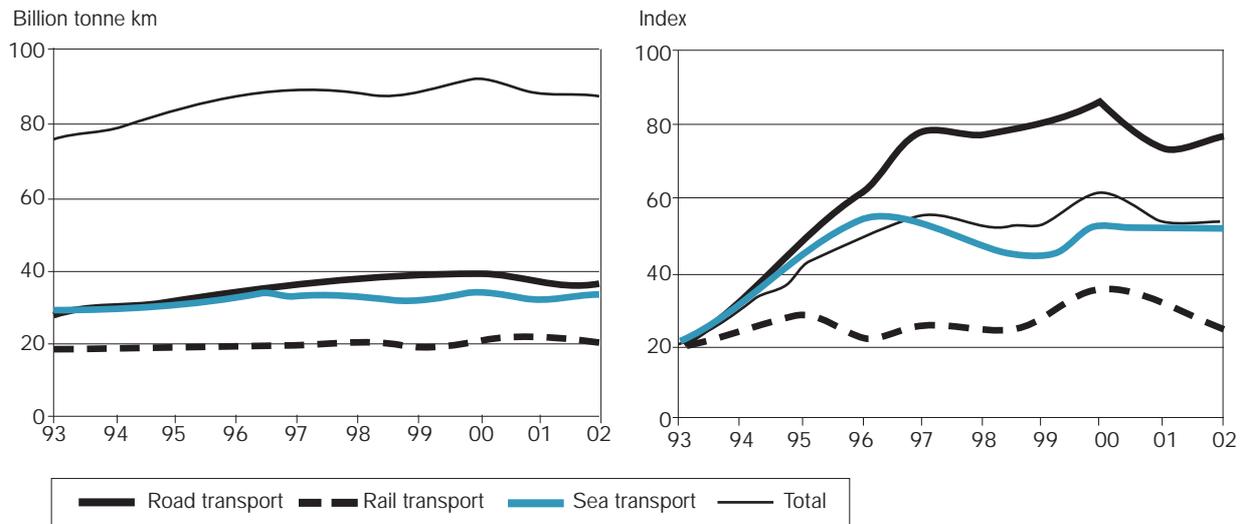


**Comparison between newly-registered cars by weight classes** 1983 and 2003. In the past twenty years, newly-registered cars in Sweden have become increasingly heavy. In 1983, 97 per cent of the newly-registered cars were under 1 500 kg. Twenty years later, only half of the newly-registered cars weighed less than 1 500 kg. Source: SIKI/Statistics Sweden.

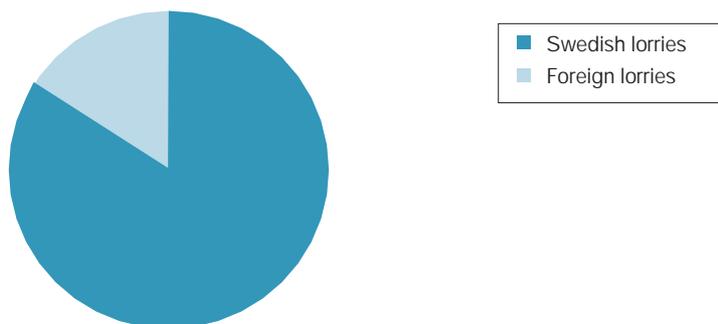


**Supply of public transport in the whole of Sweden**, measured in million kilometres of available services. Since 1993, the supply of public transport in Sweden has increased by 13 per cent. The County of Stockholm accounts for 35 per cent of all public transport in Sweden, 239 million supply kilometres, compared with the rest of Sweden with over 453 million kilometres. Bus/coach transport, which accounts for 70 per cent of all public transport in Sweden, has increased by 8 per cent over a ten-year period. The greatest increase between 1993 and 2002 is accounted for by local train traffic outside the County of Stockholm. Source: National Road Administration/SLTF.

## GOODS TRANSPORT



**Development of goods transport in Sweden.** Goods transport performance is evenly distributed between modes of transport. Goods transport increased by 17 per cent in the ten-year period 1993–2002. In absolute figures, this is an increase from 76 billion to 89 billion tonne kilometres. Road transport, including foreign lorries, accounts for the greatest increase both relatively and absolutely. The increase for road traffic in the period is eight million tonne kilometres which is equivalent to 28 per cent. The goods transport performance of sea transport has increased by 4.5 billion tonne kilometres or 16 per cent. Transport performance by railway has increased by 0.4 billion tonne kilometres which is equivalent to two per cent. Source: SIKA.



**Goods transport by lorry in Sweden.** The total transport performance with heavy lorries (over 3.5 tonnes) on Swedish roads was approximately 41 billion tonne kilometres in 2002. Approximately 85 per cent was carried out by Swedish lorries and approximately 15 per cent by foreign lorries. The Swedish lorries that operated entirely in domestic transport accounted for just under 32 billion tonne-kilometres, while Swedish lorries in international transport accounted for approximately 2.5 billion tonne kilometres on Swedish roads. Approximately 80 per cent of the transport performance of the foreign lorries in Sweden was for transport to and from Sweden and the remaining portion cabotage and transit transport.



**Transit flows through Sweden.** Lorry traffic through Sweden with foreign lorries (transit) increased by almost 30 per cent between 1999 and 2002, from approximately 1.7 to 2.3 million tonnes, which is equivalent to over 2 per cent of the total goods transport performance by road. Transit through Sweden mainly consists of lorries from Denmark, Finland, Norway and Germany. A third of the transport carried out by lorry is undertaken by lorries from Denmark and Finland respectively. Source:SIKA/Samgods.

#### Explanations of concepts

- **Domestic transport** is transport where the goods are loaded and unloaded in the same country as the lorry is registered.
- **International transport** is transport to and from the country where the lorry is registered.
- **Third-country transport** is transport between two countries where the lorry used for the transport is not registered in either of these.
- **Cabotage** is domestic transport in another country than that where the lorry is registered.
- **Transit transport** is transport through a country without the goods being loaded or unloaded.
- **Transport performance** is the number of tonnes of transported goods multiplied by the road distance transported. Measured in tonne kilometres.

## ABOUT SIKA

The Swedish Institute for Transport and Communications Analysis, SIKA, is an agency responsible to the Ministry of Industry, Employment and Communications. We have three main areas of responsibility:

- To carry out studies for the government.
- To develop forecasts and planning methods.
- To be the responsible authority for official statistics.

SIKA was established in 1995 and has approximately 30 employees. We are organised in four departments – for Analysis, Research & Evaluation, Statistics and Administration. We possess considerable competence in the goods and passenger transport sector, methods of economic analysis, forecasting methods and statistics.

More information about SIKA is available on the website. This contains information on activities, government commissions, the organisation, operational plans and the annual report, publications and statements on documents circulated for comment. The website also contains a database with statistics on transport and communications.



Office address: Maria Skolgata 83, Stockholm

Postal address: P.O. Box 17 213, SE-104 62 Stockholm, Sweden

Telephone: +46 8 506 206 00

Fax: +46 8 506 20 10

[sika@sika-institute.se](mailto:sika@sika-institute.se)

[www.sika-institute.se](http://www.sika-institute.se)

