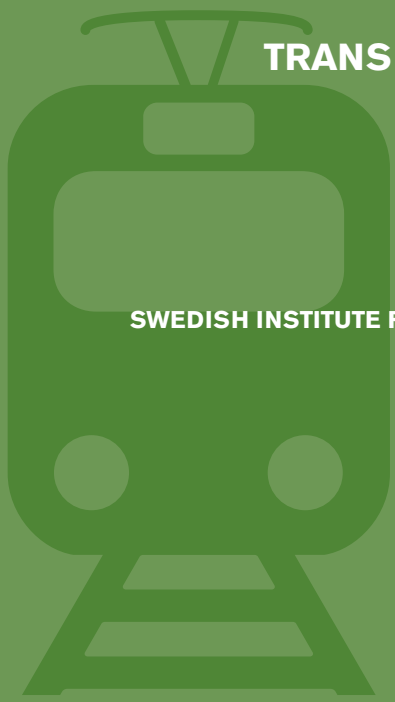



FOLLOW-UP OF THE SWEDISH TRANSPORT POLICY OBJECTIVES

MAY 2002

SWEDISH INSTITUTE FOR TRANSPORT AND COMMUNICATIONS ANALYSIS



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PREFACE

Since 1999, the Swedish Institute for Transport and Communications Analysis (SIKA) has been made responsible by the Government for producing an annual report on how the transport policy objectives are being met.

This year's follow-up shows that developments in the field of traffic safety are still moving away from the targets. In the environmental sphere, the problem is emissions of carbon dioxide and their effect on the climate, while development is moving in the right direction for other emission targets. As regards transport quality, there have been marked delays in rail traffic. As regards accessibility and regional development, it can be noted that journey times on the road network have become longer and accessibility for air travel has deteriorated.

This publication is a summary of SIKA Report 2002:3 Follow-up of the transport policy objectives. May 2002 (in Swedish). It is based on material in the form of annual reports, sector reports, etc. from the transport agencies – the National Rail Administration, the Civil Aviation Administration, the Swedish Maritime Administration, and the National Road Administration. The National Public Transport Agency, the National Rural Development Agency and SIKA have also produced special analyses of accessibility and regional development.

This report, as well as other publications from SIKA, is available at the website www.sika-institute.se.

Stockholm, June 2002

Staffan Widlert
Director

THE TRANSPORT POLICY OBJECTIVES

In spring 1998, the Riksdag adopted the transport policy objectives that still apply. The objectives are designed as an overall objective and a number of subsidiary objectives for particular areas. In December 2001, the objectives were complemented, including a new subsidiary objective on equal opportunities. There are concrete intermediary objectives with set periods for some of the subsidiary objectives (transport quality, safe traffic and environment). SIKA has been instructed by the Government to compile an annual report on how the transport policy objectives are being met. This report gives an account of the extent to which we are approaching the objectives and the expected future development. The subsidiary objective on equal opportunities is not described in this year's report since it was only adopted at the end of 2001. SIKA has produced similar reports since 1999.

The overall objective for transport policy will be to secure socially, economically efficient and long-term sustainable transport resources for the public and industry throughout Sweden.

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

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

* **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 from this.

* **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 other natural resources must be promoted.

* **Positive regional development**
  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.

* **A transport system with equal opportunities**
  The transport system shall be designed in such a way as to respond to the transport requirements of men and women. Women and men shall have the same opportunities to influence the creation, design and management of the transport system, and equal importance is to be attached to their values.

HOW ARE THE OBJECTIVES BEING MET?

This year's follow-up shows that development in the areas of traffic safety and impact on the environment by carbon dioxide emissions is still negative and moving in the wrong direction away from the goals. However, it is positive that development is moving in the right direction for other sources of air pollution. As regards transport quality, there are marked delays in rail traffic. As regards accessibility and regional development, it can be noted that travel times on the road network are longer and that accessibility for air travel has deteriorated.

This is how development is progressing in relation to the objectives

Subsidiary objective	Development towards long-term objective during 2001	Will the intermediate objective be met with the decisions made?
Accessibility	Uncertain	–
Transport quality	Yes	No
Safe traffic	Roads: No	No
	Other modes of transport: Uncertain	
Environment		
Impact on climate (CO_2)	No	No
Air pollution (S, NO_X, VOC)	Yes, probably	Yes, probably
Noise	Yes	No
Ecocycle adaptation	Uncertain	–
Impact on natural and cultural environment	Uncertain	–
Regional development	Uncertain	–

– No intermediate objectives

ACCESSIBILITY AND REGIONAL DEVELOPMENT

Accessibility and regional development are objectives that are difficult to measure. There are many factors that are important. The only interim objective that has been set to date concerns accessibility for the functionally disabled and means that public transport is to be accessible for the functionally disabled by 2010. It is too early yet to be able to make an assessment of whether the objective will be met.

At present, inventories are being made of the present situation with regard to access and the extent of rebuilding of stations and terminals required to improve accessibility.

Work is also in process of producing follow-up systems of what is to be measured in order to monitor development as regards accessibility and regional development.

Some examples of ways of measuring accessibility are as follows:

* Distance between home and work: City dwellers and residents in certain rural municipalities have the longest distance to work. Travel times by car are longest in the metropolitan regions.

* Distance between home and the railway station: More people lived within walking and cycling distances of a railway station in 2001 in comparison with the year before. Women work within walking and cycling distance of a railway station to a greater extent than men.

* Ease of access and accessibility by air: The ability to reach other airports from a particular airport in the country (ease of access), and to reach a particular airport from other airports (accessibility) deteriorated during 2001.

* Travel times for road traffic: Travel times on the national road network were longer in total in 2001 compared to the previous year, despite investment in new roads. This is due to a reduction in speed limits on many roads.

TRANSPORT QUALITY

Finding measures of transport quality is not easy either. During 2001, the previous detailed intermediate objectives on transport quality were replaced by a new intermediate objective for predictability, safety, flexibility, comfort, accessibility and availability of information. There are limited opportunities for following up these new aspects of transport quality at present, and new follow-up systems need to be developed.

It is only considered to be possible to achieve two of the previous intermediate objectives. These relate to the railway and increases of the highest permitted axle load and the loading gauge.

During 2001, rail traffic has otherwise been marked by major disruptions to traffic and the number of hours of train delays has increased every year since the end of the 1990s. The main part of the delays affected goods traffic and is largely explained by an increase in traffic. However, delays have been reduced in air transport, which is explained by a reduction in air travel.

However, it should not be concluded from these examples that reduced traffic leads to better transport quality. On the contrary, when there is a fall in demand, there is a risk of deterioration through fewer services, withdrawal of routes, etc.

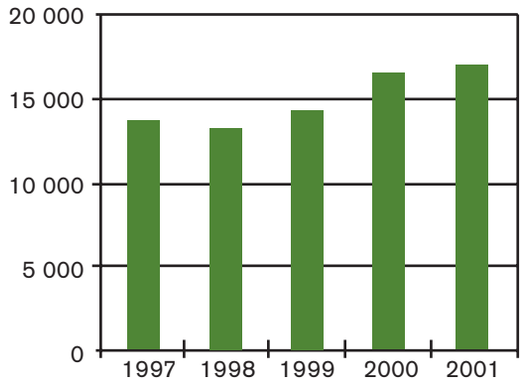
SAFE TRAFFIC

Development of safe traffic is moving in the wrong direction away from the objectives. This is particularly the case for road traffic, although there has also been a great increase in fatal accidents in air and sea transport as well during 2001. However, there are a number of measures that could reverse this trend, even in the short-term, which are also very profitable for society.

Speeding and driving under the influence of alcohol and other drugs – which are against the law – cause many accidents in road traffic. Over half of road traffic exceeds the speed limits and driving under the influence of alcohol has increased in recent years.

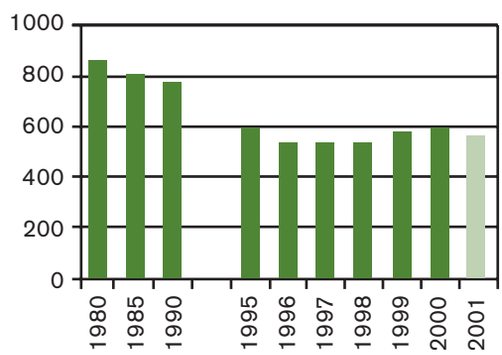
Reducing speed, for instance, by better traffic supervision could be an effective way of rapidly reducing the number of those killed and injured on the roads. The police's traffic supervision activities have also been far below the targets previously set in recent years.

Reported no. of cases of driving under the influence



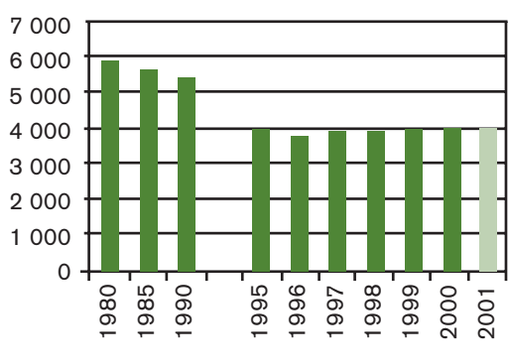
Source: National Road Administration

No. of deaths in road traffic



The figures for 2001 are still preliminary.
Source: SIKA and the National Road Administration

No. of seriously injured in road traffic



The figures for 2001 are still preliminary.
Source: SIKA and the National Road Administration

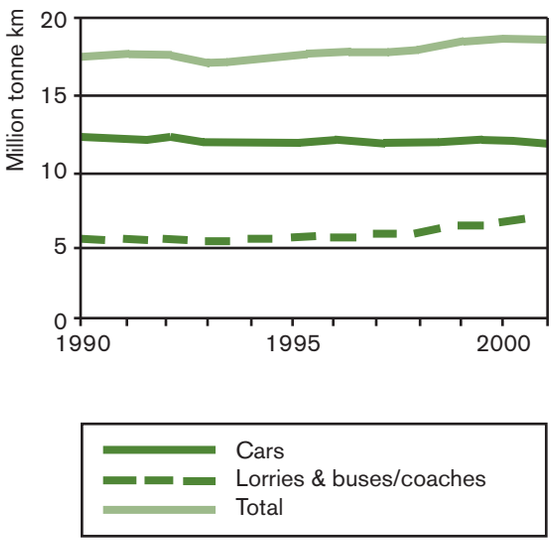
ENVIRONMENT

Emissions of carbon dioxide are continuing to increase

It will not be possible to achieve the interim objective of stabilising emissions of carbon dioxide from traffic by 2010 (compared to the level in 1990) without other measures than those already carried out or proposed. This is due to an increase in traffic. The measures required to meet this objective are mainly outside of the field of responsibility and beyond the control of the transport agencies.

The problem of reducing the emission of carbon dioxide cannot be solved only with the aid of improved technology. In order to be able to comply with the interim objective and future demands to further reduce emissions of carbon dioxide, measures will be required which affect people's and industry's transport needs and demands.

Emissions of carbon dioxide from road traffic



Source: National Road Administration's sector report 2001

The other emission objectives are possible to reach

The interim objective for sulphur dioxide has already been achieved by a broad margin and the interim objectives for nitrous oxides and hydrocarbons will probably be achieved. However, this assumes that emissions from road traffic will continue to be reduced at the same rate, and that ships continue to install cleaning equipment to the same extent as to date. It has been possible to reduce emissions of sulphur dioxide, nitrous oxides and hydrocarbons by cleaner fuel or different forms of cleaning technology.

Reduced impact on health

As regards reducing the impact on health of air pollution in built-up areas from traffic, development is moving in the right direction. Lead and sulphur are no longer problems. However, it will probably not be possible to meet future environmental quality norms for nitrous oxide in the big city areas Stockholm and Gothenburg according to the counties' own assessments. The quantities of particles will probably also exceed the environmental quality norms.

Continued problems with noise and the ecocycle

There are a number of detailed intermediate objectives for noise set for a number of years to come. It will probably be possible to achieve the target values that apply for new construction or for major reconstruction of housing, roads, and railways. However, according to assessments made by the National Road Administration and the National Rail Administration, it will probably not be possible to achieve the objectives for national roads and railways in the short term.

Work on ecocycle adaptation is moving slowly in the right direction. However, more pit run is still used than desirable and the rate of measures to reduce the number of points of conflict with water resources is proceeding slowly. It is also uncertain whether the development of the impact of traffic on the natural and cultural environment is moving in the right direction.

ECONOMIC DEVELOPMENT IS CRUCIALLY IMPORTANT

Improved household finances

The development of the Swedish economy and population has a great impact on transport. The population continues to increase and reached 8.9 million in 2001. GDP has increased for a long time, with the exception of a few years and the downturn in the early 1990s. The average increase in GDP per year was 2.2 per cent between 1975 and 2001. There has been a substantial rise in household disposable income and real disposable income increased rapidly last year.

Four million cars on the roads

The number of cars has increased by 45 per cent in the past twenty-five year period – from just under 2.8 to 4 million cars. Most cars are run on petrol although the number of diesel-driven cars has increased greatly in recent years to just under 5 per cent in 2001. The proportion of cars driven by alternative fuels is still exceedingly small.

The number of light lorries has increased by approximately 35 per cent in ten years (approximately 318 500 vehicles in 2001), while the number of heavy lorries (registered in Sweden) has been constant since 1990 (77 100 vehicles in 2001).

More cars in rural regions

On average, there were 451 cars per thousand inhabitants in Sweden. Stockholm County has the lowest density of cars with 397 cars and Gotland the highest with 524 cars per thousand inhabitants. The low proportion in Stockholm County is due to extensive public transport and problems with access and parking, in particular in the inner city.

Four of five have a driving licence

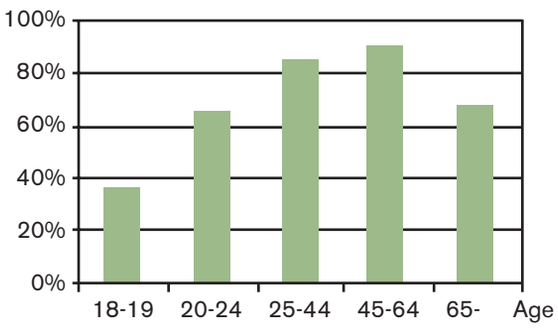
Today, 80 per cent of Sweden's population have a driving licence – most of the men (88 per cent) and 72 per cent of women. How-

ever, the proportion of women with a driving licence has increased during the 1990s.

Of persons aged between 45 and 64, 90 per cent have a driving licence, i.e. practically all those who are able to take a driving licence have done so. Most of those aged between 20 and 44 have a driving licence.

However, a considerably smaller proportion of persons aged under 20 have a driving licence and the number has almost halved during the 1990s. Many of the younger seem to wait to take a driving licence or have decided not to. There may be a number of reasons for this – a deterioration in financial situation, changed values or less need. If this change persists, the number of younger persons with a driving licence will be considerably reduced, at the same time as we will have a rapidly increased population of older drivers.

Proportion with a driving licence in different age groups



Source: Statistics Sweden/National Road Administration

TRAVEL: OVER 90 PER CENT BY ROAD

Road traffic continues to predominate

Since 1975, passenger transport[1] has increased in total by 50 per cent. Road transport accounted for 90 per cent of total transport in both 1990 and 2000. Air travel increased until 1990, while rail travel has mainly increased in recent years.

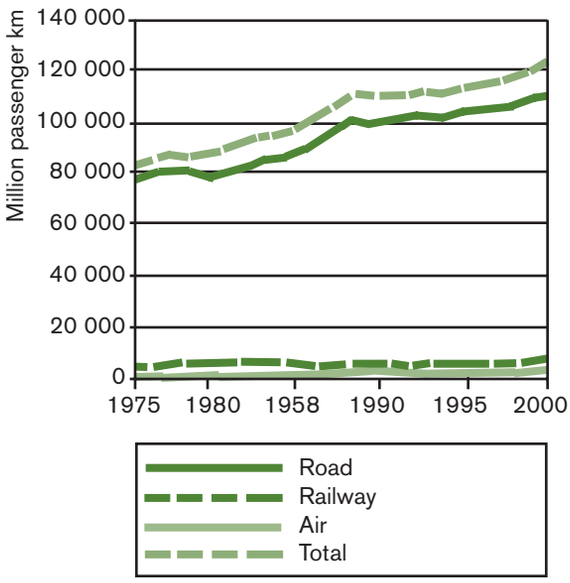
Men travel more often and further than women

On average, we make approximately three journeys[2] per person and day. The differences between different parts of Sweden are small. However, there are differences between the sexes, even if these have declined over the years. Men make more journeys per person and day than women do. Men also travel further during a day (47 km) than women (40 km). However, the distance travelled by women per day seems to be increasing.

Women use public transport more than men

Men also drive cars to a greater extent than women, while women use public transport and walk more. One explanation of this is that women's travel is of a more local character than men's. Another explanation is that fewer women have a driving licence and access to a car. However, for both men and women, the car is the most common mode of transport.

Domestic passenger transport



Source: SIKA

[1] Counted here as passenger transport performance, i.e. number of those travelling multiplied by the length of the journey and measured in passenger kilometres.

[2] Journey here means journey segment (JS) which is to be interpreted as a change of location for a particular purpose. If, for instance, a person stops on the way to work to leave a child at a day nursery, this is then counted as two journey segments – one from home to the day nursery and the second from the day nursery to the work.

Most leisure journeys

The breakdown of journeys by purpose also differs between the sexes. Men travel more in connection with work, i.e. journeys to and from work or in the course of work. This is due to a higher proportion of men than women working.

Shopping is a somewhat more common errand for women than men. The same applies to different kinds of service errands, such as those relating to health care and fetching and leaving children at day nurseries and the like.

Leisure travel is the largest group for journey purpose for both men and women. It accounts for over a third of the total number of journeys for both sexes.

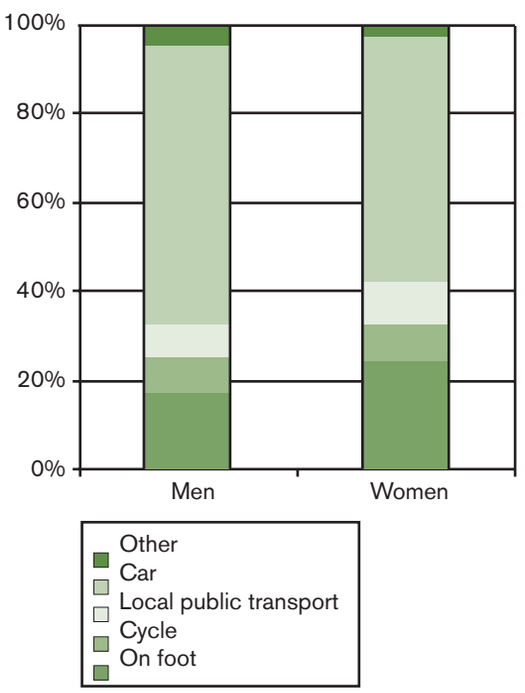
Domestic journeys by purpose

The errand service includes here health care and childcare.

Journey here means journey segment, i.e. a change of location for a particular purpose, see not 2.

Source: RES 2001

Domestic journeys by mode of transport



Source: RES 2001

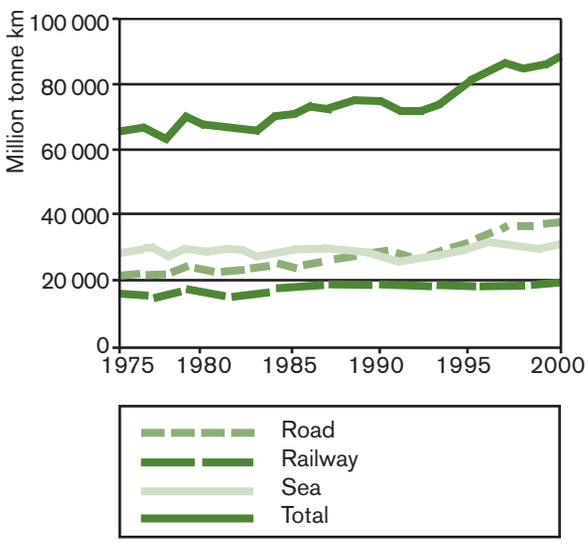
GOODS TRANSPORT: PREDOMINANTLY BY LORRY

The shift from sea to road transport

Between 1975 and 2000, the total amount of goods transport[3] in Sweden increased by 35 per cent to 89 billion tonne kilometres. Road transport increased by 75 per cent, rail transport by 23 per cent and sea transport by 7 per cent.

In 1975, sea transport was the mode of transport that accounted for the largest proportion of transport (43 per cent). During the first half of the 1990s, a shift took place and lorry transport took over as the dominant mode of transport. In 2000, road transport accounted for the largest proportion (42 per cent).

Domestic goods transport

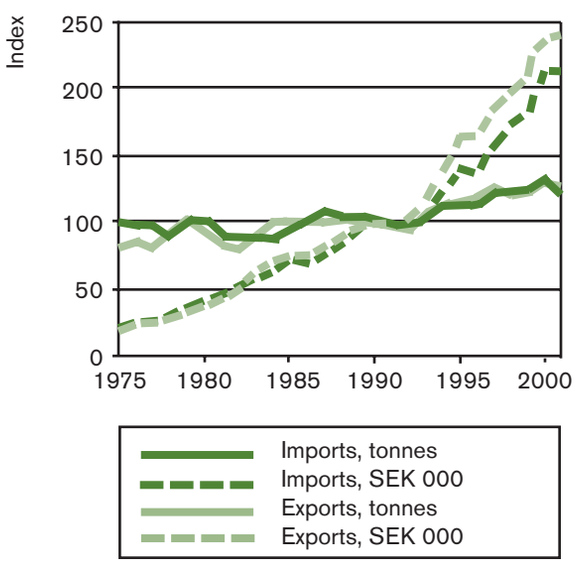


Source: SCB

The value of commodities in foreign trade is increasing more quickly than their weight

The composition of commodities in foreign trade has changed over the past twenty-five year period. While the value of exports and imports has increased by approximately 40 per cent, the weight has only increased by approximately 10 per cent. This probably also reflects the change in the composition of industry in Sweden. It also means that the usual measure of goods transport (transport performance, measured in tonne kilometres) is becoming obsolete.

Foreign trade by weight and value
Index 1990 = 100



Source: SCB

[3] Goods transport here means goods transport performance, measured as transported goods in tonnes multiplied by distance transported in km. The measure is stated in tonne kilometres.

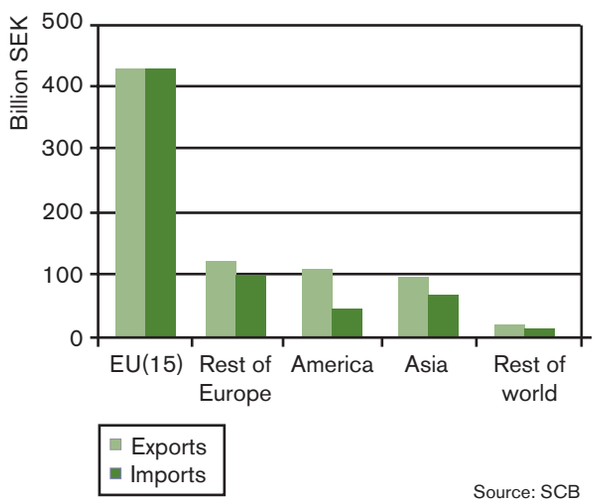
Exports larger than imports

The value of Sweden's commodity exports has increased from approximately SEK 70 billion in 1975 to almost SEK 800 billion in 2001. During the latter part of the 1970s and the 1980s, imports and exports increased by approximately as much although imports were considerably lower in the 1990s, totalling approximately SEK 650 million during 2001.

Largest trade with Europe

The largest proportion of commodity exports goes to Europe. In all, over 70 per cent of commodity exports are to European countries, of which 55 per cent are to EU Member States. Imports of commodities are even more concentrated and over 80 per cent of imports come from Europe. Compared with 1996, the concentration of foreign trade has been reduced, however, and we export more to America and import more from Asia today.

Export and import by recipient, despatching country respectively, 2001



Source: SCB

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SIKA is an agency responsible to the Ministry of Industry, Employment and Communications and working with the sector of transport and communications. We carry out studies for the Government and work together with the transport agencies (National Rail Administration, Civil Aviation Administration, Swedish Maritime Administration and National Road Administration) in the national long-term planning of the infrastructure. SIKA is also the responsible authority for official statistics in the transport and communications sector.

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