

Our Roads



Effective road system - prosperous

The road system is sometimes compared to the circulatory system of humans, which maintains normal activity by ensuring a steady flow of blood throughout the body. In the same manner a reliable road and transport system is the prerequisite for a prosperous and healthy society in both urban and rural settings. The Icelandic Road

Administration (ICERA) is mandated by law to supervise road construction, services and maintenance of Iceland's road system in accordance with need. Essentially, this requires the Icelandic Road Administration to maintain operations around the country, yet its activities and influence on daily life are greater than many realize.



Ferries and the national transport system 4-5

Ferry crossings on specific routes are part of Iceland's national road system, and ICERA is responsible for ensuring that these services are available. The combined length of the country's road system was 13,034 km on 1 March 2006, and another 264 km is added when ferry routes under the auspices of ICERA are included.



8 ICERA's Funding

The amount of funding received by the Icelandic Road Administration is determined by the collection of a kilometre tax on vehicles weighing > 10 tons, petrol and diesel oil taxes and other sources of income appropriated by the Treasury. In 2005, total funding to ICERA amounted to over 13.4 billion ISK, while the State's overall revenue from the field of cars and traffic totalled 47 billion ISK.



More driving - fewer accidents 6-7

During the 10-year period from 1995-2005 the number of registered vehicles in Iceland rose by about 63%, while in 2005 alone the number of vehicles increased by 26,000. Heavy-truck transportation on highways has increased substantially. At the same time the number of road injuries and fatalities has decreased by about 54% when compared to kilometres driven.

10-11 Operations around the country

About 330 people work for the Icelandic Road Administration around Iceland. Road construction, which had largely been implemented by ICERA, is now almost entirely allocated to contractors through tenders. This arrangement not only promotes greater efficiency and better utilisation of funds, it also has a very positive effect on economic activity in communities around Iceland.

communities - strong economy



ICERA in the information age 12-13

ICERA's service centres in Ísafjörður and Reykjavík closely monitor the state and condition of the road system, which involves processing vast amounts of information about weather conditions, frost on roads, number of vehicles, traffic speed, axle weight, distance between vehicles and much more. By processing this data it is possible to evaluate service needs, and considerable effort is focused on quickly and efficiently channelling this information to travellers.



15 Research & development

ICERA maintains a dynamic research and development programme, which is involved in numerous projects at any given time. Research on load-bearing capacity and other properties of materials used in Icelandic roads is an important part of this work. Part of this research is conducted in cooperation with international research centres.



Traffic surveillance 14

Traffic surveillance by ICERA aims at preventing damage to roads, and improving traffic safety. It monitors vehicles to ensure that they comply with licensing regulations relating to transporting people and freight on land. ICERA also monitors such vehicles to determine that the equipment and operation of the vehicle are in accordance with statutes and regulations, and that stipulations regarding the driving time and rest periods for drivers are respected.



16 Extensive soil reclamation

In recent years the Icelandic Road Administration has been one of the largest parties involved in Iceland's soil reclamation programme. ICERA has developed an environmental policy, whose primary aim is to ensure that roads and traffic coexist well with the environment and population.

The Road System

The nation's roads are divided into state roads on the one hand and public and private roads on the other. State roads are managed by the Icelandic Road Administration, including their construction, service and maintenance. State roads form a continuous road system that links populated areas. The combined length of the country's road system was 13,034 km on 1 March 2006. State roads that can be used freely by the public are divided into four categories: primary roads, secondary roads, estate roads and "tourist" roads. Ferries are defined as part of the state road system and their operation therefore under the responsibility of ICERA. The combined length of ferry routes was 264 km on 1 March 2006. The main principles for categorizing roads are the following:

Primary roads

Primary roads reach areas with populations of 1,000 or more and form a connection between such areas. On 1 March 2006 the total length of these roads was 4,230 km.

Secondary roads

These roads connect estate roads to primary roads, and end at the third inhabited farm from the end of the road. Where a secondary road connects urban areas to the primary road system it shall extend to the part of the community that is most important for its local economy. Roads to airports from which there are regular scheduled flights, and roads to harbours and piers from which there are scheduled sailings, are also defined as secondary roads if they are not classified as primary roads. On 1 March 2006 the total length of these roads was 4,003 km.

Estate roads

Estate roads connect farms, institutions, etc. to secondary or primary roads. These are roads that lead to inhabited farms not connected to primary or secondary roads, to churches, public schools and other public institutions in rural areas and urban areas with fewer than 200 inhabitants. On 1 March 2006 the total length of these roads was 2,225 km.

„Tourist roads“

These roads do not belong to any of the above road categories. The category covers roads across mountains and heaths, roads connecting districts, roads within national parks and roads leading to popular tourist spots. On 1 March 2006 the total length of "tourist roads" was 2,576 km.

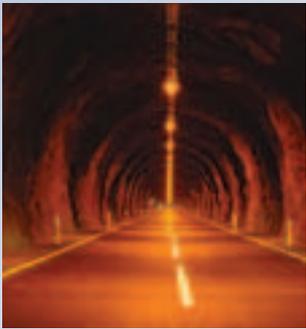
Public roads, private roads, horse tracks, bicycle- and footpaths

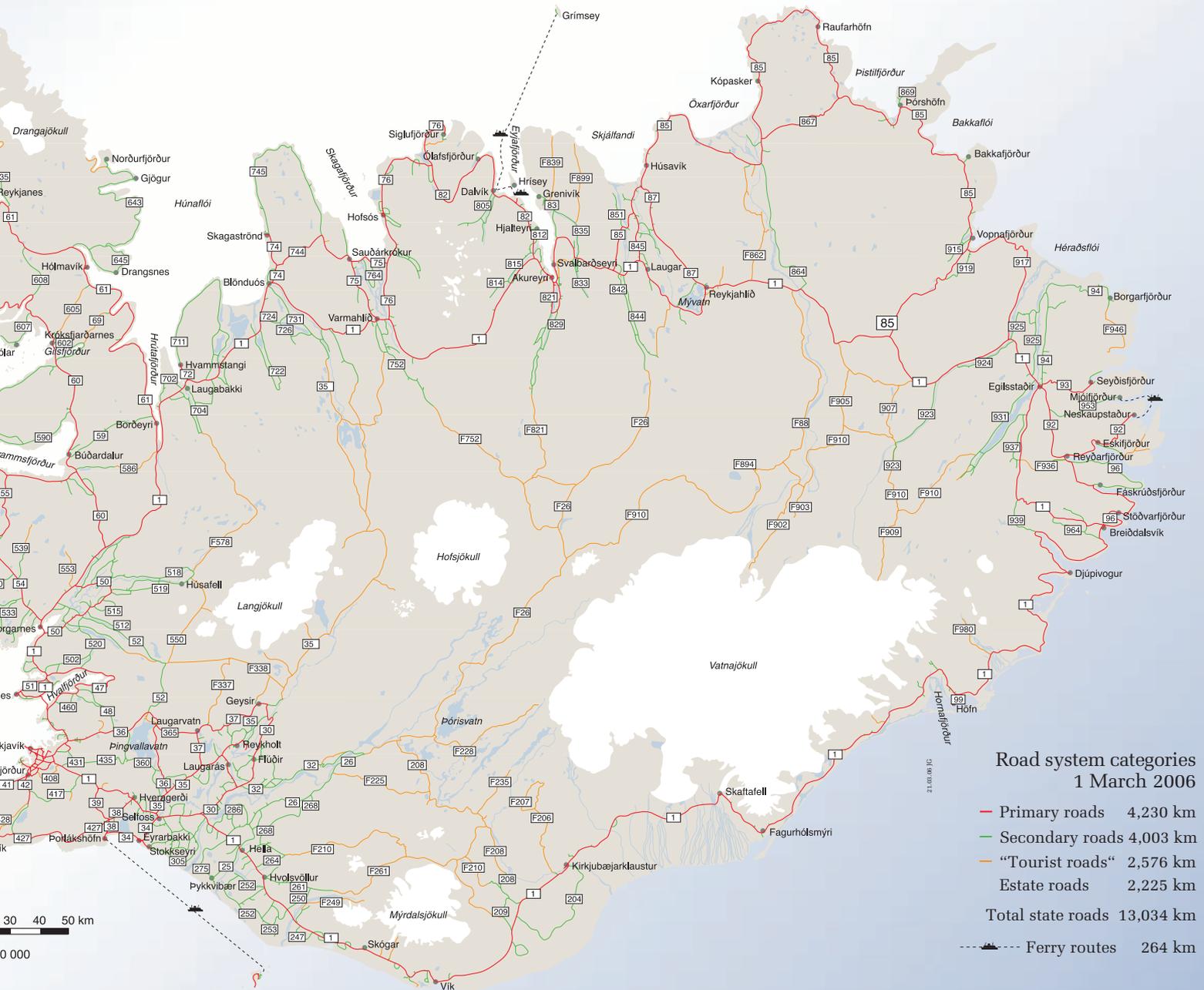
Owners of public roads, private roads, horse tracks, bicycle paths and footpaths see to their construction, service and maintenance. Public roads are owned by public authorities and can be used freely by the public, while private roads are funded by individuals, organisations, companies or public authorities. Horse tracks are used for horseback riding and are funded by individuals, organisations, companies or public authorities. Bicycle- and footpaths are chiefly for bicycling and walking, and are funded by individuals, organisations, companies or public authorities.

Road tunnels

Iceland's first road tunnel was opened in the mid 20th century, which required excavating through a 30-m thick dike between Ísafjörður and Súðavík. Since then tunnels have been constructed at 7 sites around the country, most often with some intervals. On 1 March 2006 the total length of road tunnels in Iceland was 27 km.

In 2000 the Icelandic Parliament (Alþingi) approved a long-term road tunnel plan, which involves evaluating numerous possibilities. A position was also taken regarding the location of the next road tunnels, and an implementation and financing plan submitted.





Road system categories 1 March 2006

- Primary roads 4,230 km
- Secondary roads 4,003 km
- "Tourist roads" 2,576 km
- Estate roads 2,225 km
- Total state roads 13,034 km
- Ferry routes 264 km

Longest bridges

Skeiðará	880 m
Borgarfjörður	520 m
Súla	420 m
Ölfusárós	360 m
Gígjukvísl	336 m
Kúðaflljót	302 m
Lagarfljót	301 m
Hornafjarðarflljót	254 m
Markarfljót	250 m
Jökulsá í Lóni	247 m

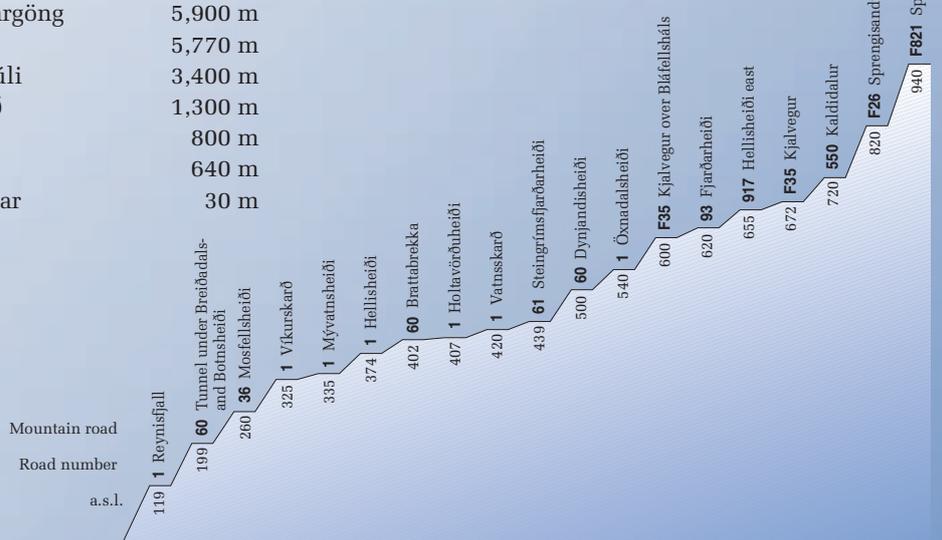
Length of tunnels

Héðinsfjarðargöng (Tender 2006)	11,000 m
Breiðadals- og Botnsheiði	9,120 m
Fáskrúðsfjarðargöng	5,900 m
Hvalfjörður	5,770 m
Ólafsfjarðarmúli	3,400 m
Almannaskarð	1,300 m
Strákagöng	800 m
Oddsakarð	640 m
Arnardalshamar	30 m

Length of ferry routes

Vestmannaeyjar-Þorlákshöfn	74 km
Dalvík-Grímsey	67 km
Stykkishólmur-Flatey-Brjánslækur	52 km
Ísafjörður-Vigur-Æðey	46 km
Mjóifjörður-Neskaupsstaður	17 km
Dalvík-Hrísey	4 km
Hrísey-Árskógssandur	4 km

Height of mountain roads



Vehicles and traffic



Increasing traffic

Strain on the country's roads has increased significantly in recent years due to evermore vehicles and increasing heavy-truck transportation. An improved road system has brought with it freight transportation by truck that previously had been carried by ships.

In the 10-year period from 1995 to 2005, the number of registered vehicles rose by almost 63%. At the end of 1995 there were 135,284 registered vehicles in Iceland according to the Road Traffic Directorate: 119,232 automobiles and 6,445 trucks. At the end of 2005, the number of registered vehicles had increased to 214,885 according to the same source: 187,442 automobiles and 9,508 trucks. In 2005, 26 thousand new vehicles were registered, of which 22 thousand were automobiles.

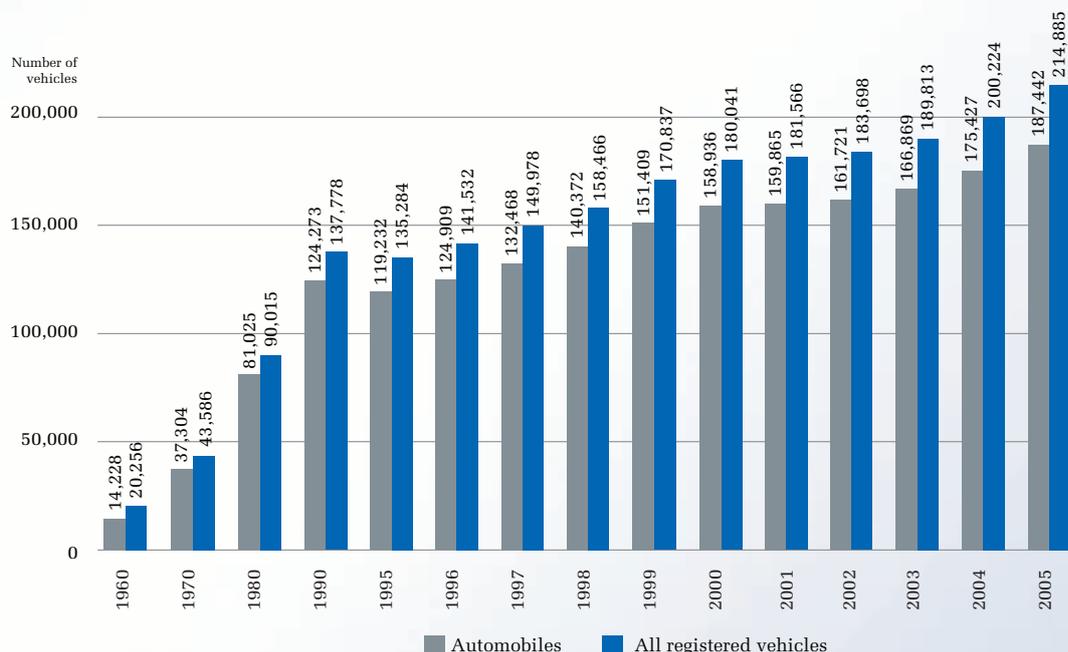
Increasing traffic has caused a significant increase in road wear, in particular due to growing heavy-truck transport. Heavy vehicles wear state roads many times faster than light automobiles, breaking down a road's construction which over time reduces

its load-bearing capacity. It is generally considered that weight has an wearing impact on roads to an exponent of 4, which means that a 10-ton axle wears down roads at a rate 10,000 times greater than a 1-ton axle.

Traffic accidents

According to information from the Road Traffic Directorate, the number of road injuries and fatalities in Iceland has decreased by about 54% when compared to kilometres driven. In 2005 there were 671 reported road accidents involving injury, down from 790 in 2004. Serious injuries and fatalities, however, increased from 138 in 2004 to 148 in 2005. There were 19 fatalities in 16 traffic accidents in 2005, a reduction from recent years when 23 died in both 2003 and 2004, and 29 in 2002. During the years 2001 - 2004, about 74% of road accidents that resulted in serious injury or death were on roads under ICERA's supervision. In 1995, 263 individuals were seriously injured in traffic accidents, of which 24 died.

Number of vehicles in Iceland 1960 - 2005



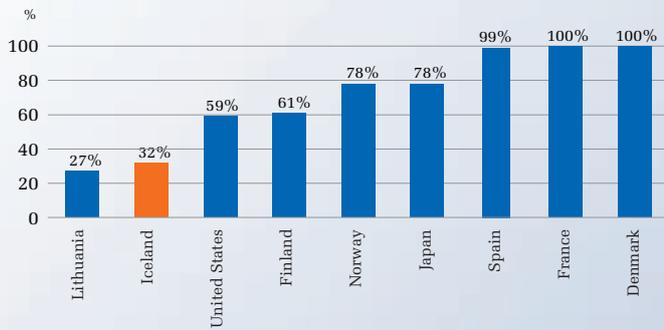


■ During 1996 to 2005 there was an annual average of 22 traffic fatalities in Iceland.

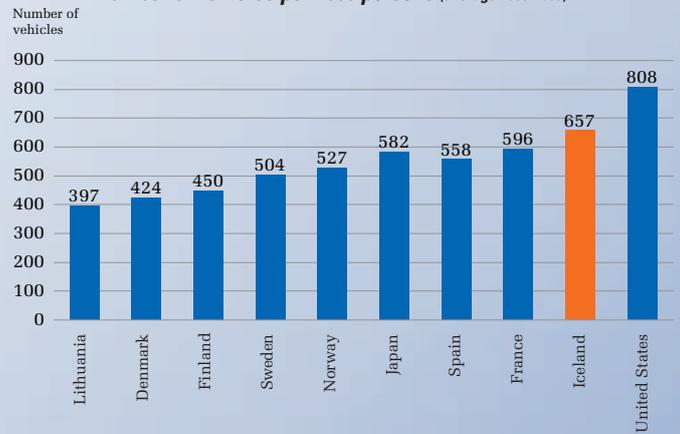


■ Registered vehicles have increased significantly in Iceland in recent years. From 1995 to 2005 vehicles increased by almost 63%, and in 2005 there were 26,000 first-time registered vehicles.

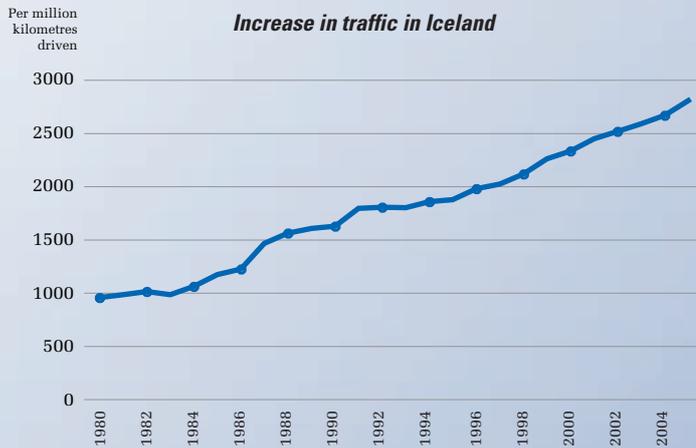
Paved roads as a share of the road system*



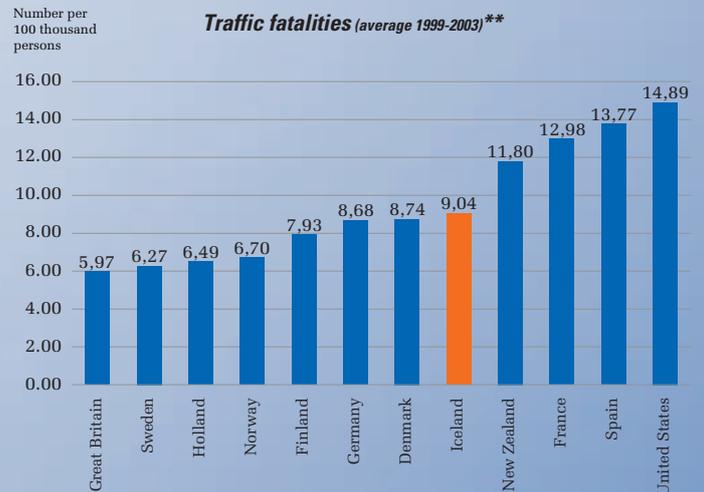
Number of vehicles per 1000 persons (average 1999-2003)*



Increase in traffic in Iceland



Traffic fatalities (average 1999-2003)**



* The figures are derived from an IRF 2005 (International Road Federation) report and cover the years 1999-2003.

** Source: IRTAD (International Road Traffic and Accident Database).

Funding



ICERA's operations and road-construction funding is mainly derived from specially earmarked sources of income determined by the Icelandic Parliament, i.e. taxes on petrol and diesel oil on the one hand, and a kilometre tax on vehicles > 10 tons on the other. Collection of these taxes, along with other occasional government appropriations, determines the annual funding available to the Icelandic Road Administration. In 2005, overall revenue and allocations to ICERA amounted to ISK 14.9 billion, of which ISK 13.4 billion was disposable in 2005.

Parliament determines the distribution of ICERA's funds in the Road Budget, which is a

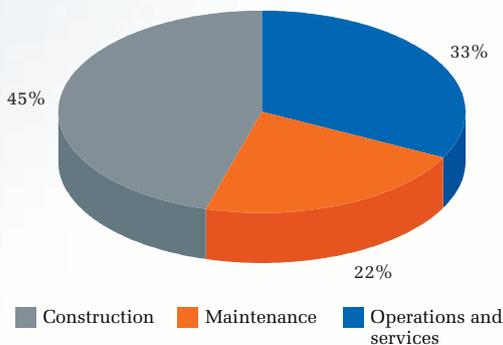
part of the overall Transport Plan that also includes government funding to aviation and shipping. The Transportation Plan is a 12-year implementation schedule divided into three, four-year periods that are reviewed every two years.

The Road Budget defines primary projects and their priority. ICERA's main projects are road construction, road maintenance and various services. In recent years many aspects of public transportation have been under ICERA's supervision, including ferries, scheduled flights and licensed coach routes, as well as grant payments to these operations.

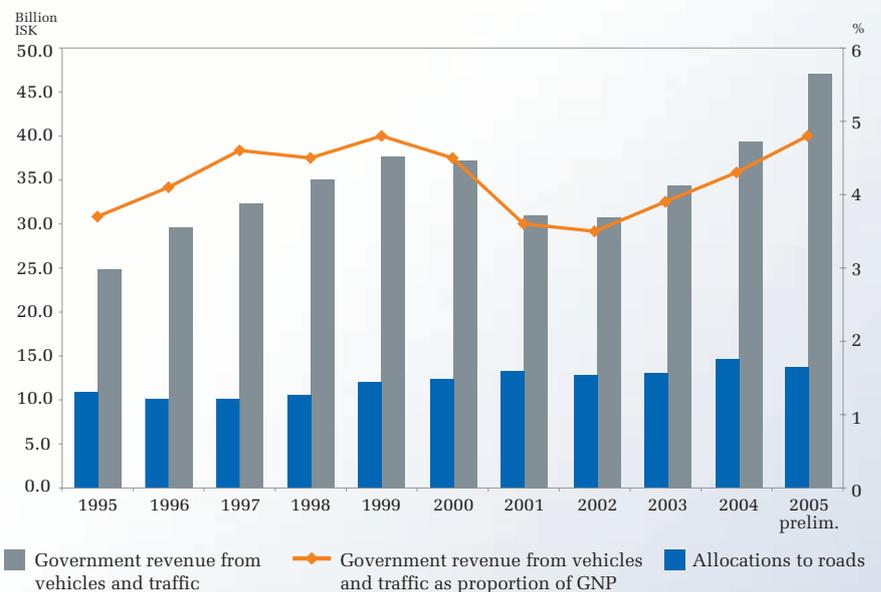
ICERA's estimated revenue 2005-2008 according to the Transport Plan (Millions ISK.)

	2005	2006	2007	2008
Earmarked Sources of Income:				
Petrol tax	6,363	6,547	6,547	6,547
Diesel tax per kilometre	2,518	1,051	1,067	1,083
Diesel tax, annual fixed	1,497			
Fuel oil tariff	1,703	3,446	3,497	3,550
Licence fee - transport	5	4	4	4
Licence fee - taxi	5	6	6	6
Total Sources of Income:	12,091	11,054	11,121	11,190
Appropriations from the Treasury:				
Government appropriations	1,663	1,526	4,988	4,911
Appropriations to road tunnels	1,200	725	1,695	1,915
Total appropriations from the Treasury	2,863	2,251	6,683	6,826
Total revenue and appropriations	14,954	13,305	17,804	18,016

Distribution of funds in 2006 according to the Transport Plan



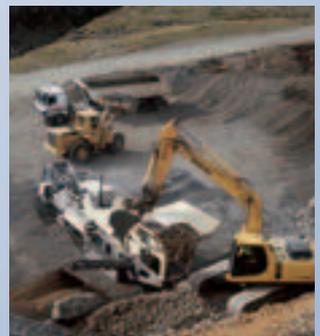
Revenue from vehicles, traffic and other sources earmarked for roads.



Construction

In former years the Icelandic Road Administration handled the construction and maintenance of most roads that were built, while subcontractors worked on individual elements. This has been changing in recent years as most projects are now tendered for on the open market. ICERA publishes a

newsletter containing information on road construction and tenders: the status of tenders, upcoming tenders and advertised tenders, as well as tenders being negotiated and those that have been concluded, are listed in the newsletter and posted on its website www.vegagerdin.is.



■ Opening tenders for Héðinsfjarðargöng tunnel 21 March 2006.

Icelandic Road Administration

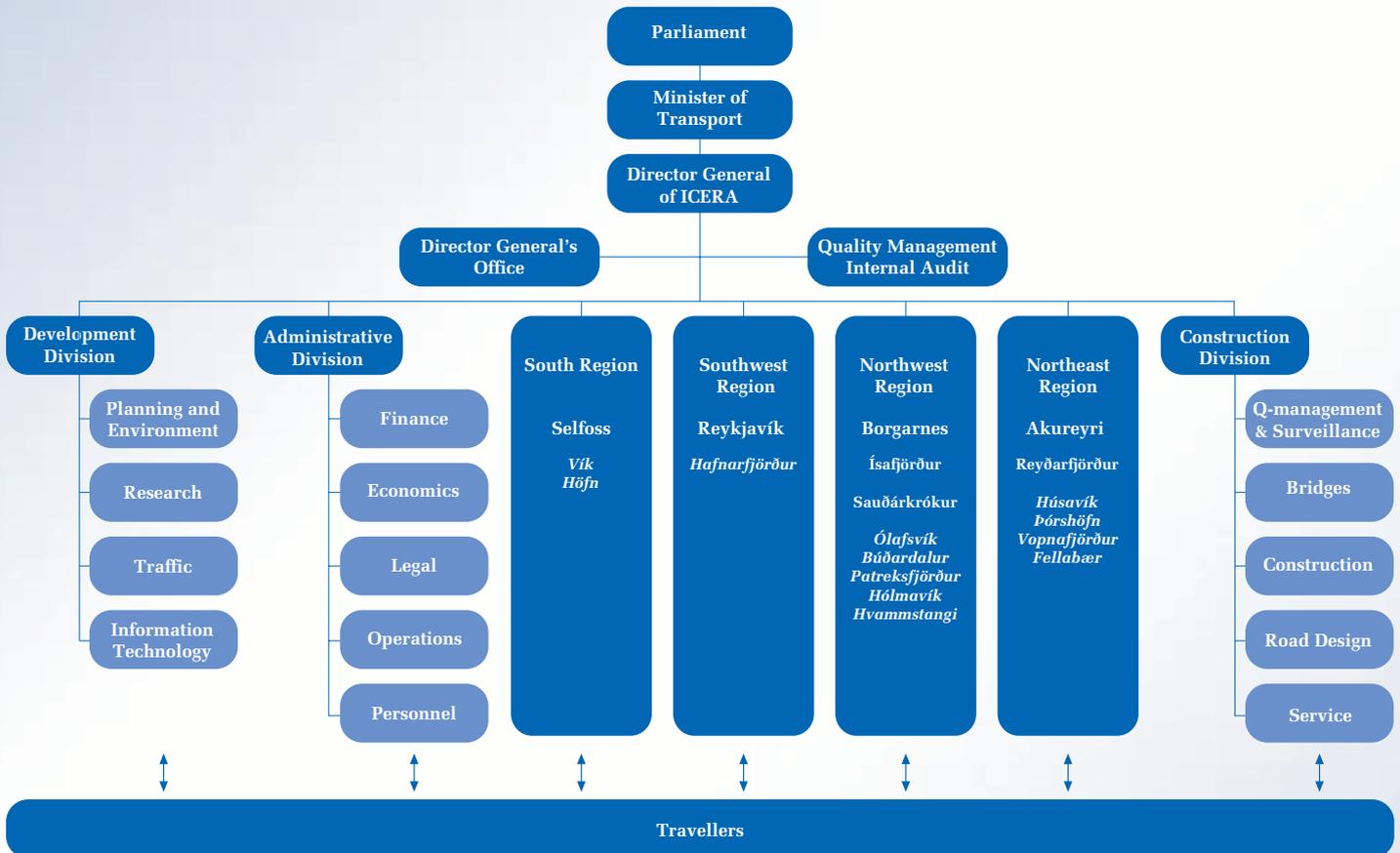
The Icelandic Road Administration employs about 330 people situated at 19 locations around Iceland. The country is divided into four regions plus headquarters. The headquarters are in Reykjavík, along with ICERA's management team comprised of the Director General, Deputy Director General and the three division directors: construction, administrative and development.

ICERA's regions are South Region, Southwest Region, Northwest Region and Northeast Region. Each region handles construction, maintenance and operations of

its road system, and provides services to travellers within the region.

In addition to the Southwest Region's regional centre in Reykjavík, there are regional centres in Selfoss, Borgarnes and Akureyri. ICERA also operates regional facilities in Reyðarfjörður, Sauðárkrúkur and Ísafjörður, as well as service facilities in Hafnarfjörður, Ólafsvík, Búðardalur, Patreksfjörður, Hólmavík, Hvammstangi, Húsavík, Þórshöfn, Vopnafjörður, Fellabær, Höfn and Vík.

The Icelandic Road Administration's Organisation Chart



Icelandic Road Administration in the information age

Dynamic information services

Collecting and channelling information to travellers about the state and condition of roads is an important part of the Icelandic Road Administration's operations. A powerful, automatic system collects information about weather and road conditions from ICERA's network of measuring stations around the country. Information from employees is also uploaded into the system, as is information received from the police and travellers. Various other information are made available: frost-measuring devices are specially situated to monitor road base-layer frost and its load-bearing capacity, and from traffic classifiers information is received regarding number of vehicles, traffic speed, distance between vehicles and axle weight of vehicles. All this information is collected and stored in a centralized database, which is used to evaluate localised conditions and supervise road services. This type of information is particularly important when designing road structures, as well as for numerous other tasks handled by ICERA.

Numerous methods are utilized to channel

information to end users. ICERA's central databases are located in service centres in Ísafjörður and Reykjavík where employees monitor steady streams of data and make it readily available. In addition to answering ICERA's information phone 1777, data is made accessible on answering machines, TV teletext and the website, as well as on electronic signs along state roads. Those interested in viewing the surface conditions on the country's main highways can access web cameras on the Icelandic Road Administration's website.

Telephone service

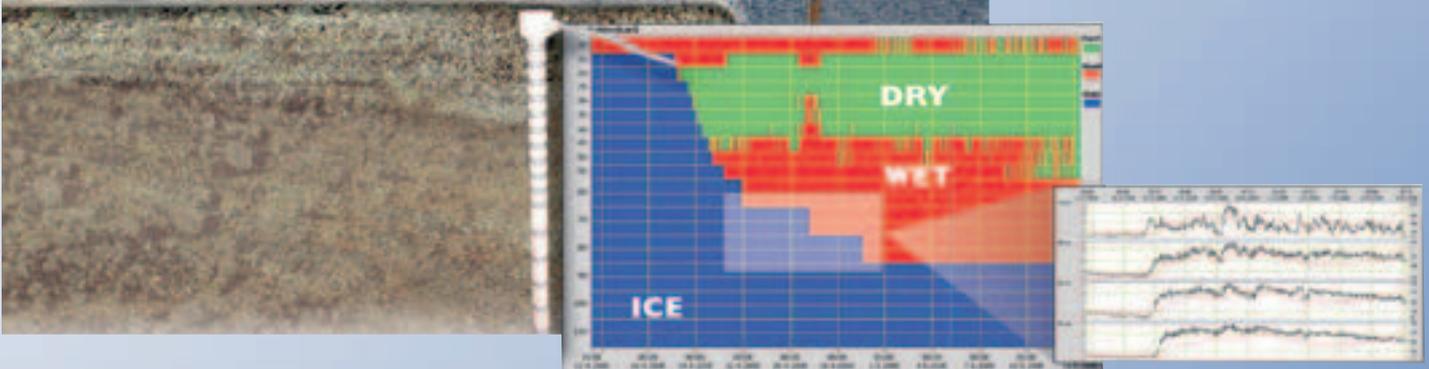
Road conditions	1777
Road conditions - recorded	1779
Weather stations	1779
ICERA Emergency Phone	522 1112
Teletext information pages	470-490
Website	www.vegagerdin.is



■ ICERA's new service centre in Ísafjörður.



■ An employee checking one of the Icelandic Road Administration's many traffic classifiers.



■ Measuring devices that transmit data about road base-layer frost and humidity enable ICERA to remain current on a road's load-bearing capacity.

Traffic surveillance



ICERA's traffic surveillance unit aims at preventing damage to roads, and improving traffic safety. The unit is required by law to monitor the weight of vehicles, trip recorders and oil and kilometre payments. Furthermore, it checks vehicles to ensure that they comply with licensing regulations relating to transporting people and freight on land. Traffic surveillance also sees that taxis follow regulations, and that stipulations regarding the driving and rest periods for drivers are respected.

Traffic surveillance inspectors are authorized to stop vehicles and weigh them,

examine tachometers, and make other checks in accordance with their duties. If the overall weight, or axle weight, of the vehicle exceeds permissible limits the inspector may require the vehicle to be lightened before proceeding. The driver is required to adhere to these and other instructions given by the inspector concerning the vehicle before being permitted back on the road.

Traffic surveillance places emphasis on good working relationships with those it is required to monitor, and strives to carry out its duties with a minimal amount of disturbance to those concerned.



■ Traffic surveillance inspectors on the job.

Research & development

According to the Road Act, ICERA shall use 1% of the earmarked sources of income for research activities. In 2006, this funding was 114 million ISK in the Road Budget. The aim of this research and development work is to increase the quality of the road network, as well as the services provided by the Icelandic Road Administration.

While a large proportion of funds are allocated to tasks within ICERA, emphasis is also placed on funding projects that originate or are conducted by others, for example universities, various consulting companies and institutions and even individuals. There are also instances of financial participation in international projects.

In the past five years there has been a focus on traffic-safety research, mainly through cooperation within the RANNUM traffic safety programme. From the beginning of 2006, greater emphasis is being put on research connected with environmental issues and information technology.

Managing road services

ICERA's road services during both winter and summer are wide ranging, and are allocated considerable funding. Rapid technological advances have made it easy to use communications technology to automatically monitor and record road services. The Icelandic Road Administration has for several years used Automatic Vehicle Location and activity recording and there are currently 27 vehicles with such equipment. This

technology increases information flow regarding the scope of service needs, material quantity and time, which is utilised in managing road services. In addition, such registrations can simplify the monitoring of service quality and contribute to improved utilisation of funds. This project is still under development, which has been primarily financed with research funding.

International cooperation

ICERA participates in various international research and development projects. The primary aims are to acquire knowledge and experience from other countries, keep up to date with ongoing developments and implement them in Iceland when appropriate, to introduce our experience and knowledge in the international arena and raise financing for research projects from the EU.

Among ICERA's collaborative partners abroad is the Swedish National Road & Transport Research Institute, which conducted extensive research on Icelandic road-construction material in 2000. One-hundred tons of Icelandic granular material was shipped to Sweden where a road was then constructed at the institute. Over 3-4 weeks load-bearing tests were conducted on the Icelandic road equivalent to about 10 years of heavy trucking. These studies provided valuable data concerning the bearing capacity of Icelandic roads, and the conclusions have been used for further research and analysis.



■ Road construction workers build a sample of Icelandic road at a Swedish research institute, where extensive tests were carried out on Icelandic road materials.



■ ICERA's surveyors at work.



■ Testing on road-building materials is conducted at the Icelandic Road Administration's research laboratory at Borgartún, among other places.

Environmental issues

Environmental policy

ICERA has defined the main environmental factors in its operations and formulated an environmental policy and goals. The main goal of the environmental policy is to promote a harmonious relationship of roads and traffic with the environment and community. This policy is based on the ISO 14001:2004 environmental standard and environmental management systems in public administration. Emphasis is focused on roads being as normal a part of the environment as possible, and that their construction, maintenance and operation should have a minimal impact on the environment. In addition, it shall be endeavoured to reduce noise and the use of pollutants, for example the use of solvent-based paints was discontinued in 2004; today, only latex water-based paints are used to mark roads. Furthermore, the use of white spirit, used as a thinner in road surface coatings, is being limited.

Environmental reports

ICERA publishes an annual environmental report that discusses the environmental management system and ICERA's main activities relating to environmental matters. In addition, ICERA maintains „wetland bookkeeping“ that it submits to the Environmental Health and Protection Office. The EHPO reports on the reclamation countermeasures necessary because of disruptions to wetlands resulting from ICERA road construction.

Extensive soil reclamation

The Icelandic Road Administration places priority on landscaping areas connected with road construction. In recent years ICERA has been among Iceland's largest participants in replanting. During 2004 and 2005, over 2400 hectares of roadside land were seeded and fertilised. ICERA supports various projects relating to environmental issues, for example replanting embankments by experimenting with different kinds of vegetation.

Landscaping quarries

In 2004, ICERA published a long-term plan regarding the landscaping of discontinued quarries. There are 3031 quarries registered in ICERA's quarry network, of which 1621 have not been restored. Of these, about 1100 are under the auspices of ICERA, which has determined to restore about 900 quarries by the end of the next Transport Plan in 2018.



Rest areas

Over the past few decades the Icelandic Road Administration has built up a comprehensive network of rest areas along the country's state roads, which include information maps about roads and local conditions in the vicinity, along with tables and benches for resting. ICERA has also set up numerous signs that contain various interesting information about local areas.