



**Statens vegvesen**

Norwegian Public Roads Administration

National Transport Plan 2006-2015

# National Cycling Strategy

-Making Cycling Safe and Attractive



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The Minister of Transport and Communications, Torild Skogsholm, said the following about a national cycling strategy:

*“I have requested the Directorate of Public Roads to begin work on drafting a national cycling strategy. I am preparing to include this strategy in the work on a National Transport Plan for 2006-2015. Increased bicycle use produces health gains, which is why we need to work to facilitate increased use of bicycles as a mode of transport. Investing in foot and cycle paths can be profitable for society. I intend to work closely with the minister of health and minister of the environment to put bicycles on the agenda. It is important for me that the results of the efforts on a national cycle strategy are followed up in future planning.”*

Statement made at the National Cycling Conference in Drammen, 23 September 2002



Cycling must feel safe.

# Preface

After debating Report no. 24 (2000-2001) to the Storting, *The Government's Environmental Policy and the State of the Environment*, the Storting resolved as follows: "The Storting asks the Government to formulate a National Cycling Strategy aimed at making it safer and more attractive to use a bicycle as a mode of transport. This must be part of the national transport plan."


The Ministry of Transport and Communications asked the Directorate of Public Roads to "begin work on incorporating a national cycling strategy into the agencies' draft National Transport Plan 2006-2015." The Norwegian Public Roads Administration set up a working group to carry out this effort. It was led by Anders Dalen Norwegian Public Roads Administration (NPRA), Directorate of Public Roads.

The working group had members from NPRA, Directorate of Health and Social Affairs, Stavanger Municipality and Telemark county.

The members from Stavanger Municipality and the Telemark county administration represented the Norwegian Association of Local and Regional Authorities. Paal Sørensen from Vista Utredning was the secretary during the initial phase of the work on this policy document.

Its contents are primarily based on technical reports of experiences of Norway and other countries. The Institute of Transport Economics (TØI) was contracted to prepare two interim reports, and members of the working group contributed reports on special topics. The National Cycling Strategy contains a discussion of what is necessary to make bicycles a safer and more attractive mode of transport. This will require a broad array of measures in which the central government, counties, municipalities, companies and interest groups are all key players. Many of the proposals are ideas that need to undergo further discussion before they can be implemented. The Norwegian Public Roads Administration's proposals for following up a national cycling strategy appear in the transport agencies' recommendations for the National Transport Plan 2006-2015.

The National Cycling Strategy that has now been drafted ought to be a solid basis for safer, greener and more efficient transport. Unfortunately, the financial constraints that the Norwegian Public Roads Administration and others have to adapt to are too narrow to improve conditions for cyclists as quickly as we would like.

  
Olav Sjøfeland  
Director General of Public Roads





Cycle potential.

# Summary

## The Storting has called for a national cycling strategy

During the Storting's debate on 7 June 2001 of Report no. 24 (2000-2001) to the Storting, *The Government's Environmental Policy and the State of the Environment*, the Government was asked to formulate a national cycling strategy aimed at making it safer and more attractive to use a bicycle as a mode of transport. The Storting requested that such a national cycling strategy be incorporated into the national transport plan.

The strategy was drafted by the Norwegian Public Roads Administration in cooperation with the Directorate of Health and Social Affairs, the Norwegian Association of Local and Regional Authorities and the Norwegian National Cycling Association.

Although the Ministry of Transport and Communications decided in principle that the Norwegian Public Roads Administration should be responsible for the final draft of the strategy, the Ministry believes that it is crucial that this proposal be made in collaboration with other players.

The Norwegian Public Roads Administration's recommendations for following up the national cycling strategy is included in the draft National Transport Plan 2006-2015.

## The goal of a national cycling strategy

The goal of a national cycling strategy is to make it safer and more attractive to cycle. These intermediate goals have been set:

- The risk of fatalities or permanent injuries from road accidents is not to be higher for a cyclist than for a motorist.
- The share of bicycle traffic in "bicycle towns" (towns opting to facilitate cycling) is to increase by 50%.
- Bicycle traffic in Norway is to comprise at least 8% of all travel (out of the total number of trips).

Today the risk of death or permanent injury is three times as high for cyclists as for drivers, calculated per kilometre. The goal of sharply increasing bicycle use gives bicycles an important role in the transport system.

## Why should more people cycle?

### Health

Regular physical activity protects against premature death and the emergence of cardiovascular disease, high blood pressure, type-2 diabetes, excess weight, obesity and several cancers. Physical activity also improves one's

mental health and is important for preventing muscle, skeletal and joint ailments. Recent research shows that less physical activity is required than previously assumed to achieve a significant health gain. For inactive adults, physical activity of moderate intensity equivalent to a 30-minute brisk walk every day will yield substantial benefits.

Physical inactivity can be isolated as an independent risk factor for a number of illnesses and ailments, and in industrial countries only smoking constitutes a greater risk than physical inactivity. There are reasons to assume that about half of the adult population is not sufficiently physically active. An average weight gain among 40-year-old men of 9 kg in the past 40 years points in that direction. Everyday life requires less and less physical activity. Increased prosperity and access to technical innovations make physical activity superfluous in everyday life. We are sitting on a ticking health bomb.

### Environment

In the largest urban areas, it is important to focus on cycling, mass transit and walking as a strategy for achieving greener transport. In the other cities and towns, the focus is on cycling and walking, which are key in achieving greener transport. The bicycle's range is long enough to make it a suitable alternative to the car for short trips.

### Socio-economic benefits

It is good socio-economics to facilitate more cycling. The Institute of Transport Economics has calculated that investments in a continuous cycle path network will yield a net benefit of over three times the cost for the three towns studied, Hokksund, Hamar and Trondheim. This is a very favourable beneficial effect compared with other transport investments.

Lower absenteeism along with reduced costs, for instance, for parking and transport to school, constitutes a saving of up to NOK 30,000 a year for every sedentary person who becomes a cyclist. For society this means a daily saving of NOK 150 for each new bicycle commuter. This calculation is based on expenditures on traffic accidents remaining constant compared with the current situation, and assumes that the main cycle path network is fully developed.

### Greatest potential for increased cycling in cities and towns

In Norway, 4% of all trips are by bicycle. In most other European countries this share is 5-10%, with the Netherlands on top, with 28% of all trips by bicycle. In Sweden, the share is 12%, and there is a goal to increase this to 16% by 2010.

The Institute of Transport Economics has calculated the bicycle potential of Norwegian cities and towns. The potential for increased cycling is found primarily in the area of short car trips. Half of all trips are shorter than 5 km. It is calculated that there is a potential for increase foot and cycle traffic by 50% in cities and towns with over 5,000 inhabitants.

## Making it safer and more attractive to cycle

The goal to increase bicycle use can only be reached by a concerted focus on infrastructure, so that, for instance

- cycling feels safe by individuals; parents especially need to feel that their children are safe while cycling to and from school
- by cycling a person follows the shortest route and comes closer to his destination than by car
- cycle traffic is given priority over or is on an equal footing with cars on public roads and streets and in crossings.
- accessibility and parking for bicycles is given priority at shopping centres and public transit nodes.

This will require a wide spectrum of measures where the Ministry of Transport and Communications, the Norwegian Public Roads Administration, counties, municipalities, companies and relevant interest groups are key players. Additionally, a basic assumption is that expertise in planning for bicycle use be enhanced.

Vision Zero for traffic safety is a vision of no fatalities or permanent injuries in road traffic. The national cycling strategy is based on this vision. A prerequisite is an infrastructure that is safe and attractive for cycling.

The traffic rules need to be improved so that they help to make it safe and attractive to cycle, while cyclists must be influenced to follow these rules. Safety standards must be set for bicycles, and cyclists must wear a helmet and readily visible clothing and use reflectors.

Municipal traffic safety plans will be a key contribution in further work to follow up the National Transport Plan and subsequent plans of action. Training good traffic safety habits at a young age is crucial for ensuring safer behaviour in traffic.

### Cycling in cities and towns

The efforts in cities and towns are aimed at planning continuous main cycle path networks, including facilities for parking bicycles.

In all transport planning in cities and towns, competitive interfaces between modes of transport need to be addressed. Extensive use of bicycles will only be achieved if bicycles have advantages over other modes of transport. This means that all measures that make it less attractive to drive will make it more attractive to cycle or take public transport. Restrictive measures on car traffic, such as road pricing and parking restrictions, will thus have a positive impact on cycling as well as on walking and public transport use. Such measures should presumably be in addition to improved infrastructure if cycling is to increase substantially.

As a basis for planning a continuous cycle path network, the Norwegian Public Roads Administration has drafted guidelines for what should be the central government's responsibility for continuous cycle path networks in



cities and towns with more than 5,000 inhabitants. These guidelines may be used in other places if deemed appropriate.

Planning a continuous cycle path network starts with inspections of cycle paths. Reports on the subject provide good suggestions for further planning and for improvements in the way of immediate measures.

Handbook 233 – *Sykkelhåndboka – Utforming of sykkelanlegg* (The Cycling Handbook – Designing Bicycle Facilities) provides guidance in planning main cycle networks in cities and towns. One recommendation is to provide more separation between foot and cycle paths in high-traffic areas. Among solutions that are new or little used we would like to mention experiments with cycling against vehicle traffic on one-way streets and marking and signposting dedicated cycle lanes.

Exchanging expertise and experiences between cities committed to measures promoting bicycle use should take place through a national network of “bicycle towns”. The network needs to have a board and secretariat responsible for day-to-day operation.

“Bicycle accounts” can provide data on status and on implemented measures. Documentation or description takes the form of key figures. At the same time, such bicycle accounts must inform cyclists – and others – about current plans, what is being done in the area and the initiatives taken afterward. Bicycle accounts must be revised regularly (for instance, every other year), so that changes/improvements can be documented.

In all, we estimate the central government’s responsibility for new construction and rebuilding in a continuous cycle path network in cities and towns with over 5,000 inhabitants to be 800 km. Assuming a price per running metre of NOK 10,000 yields an investment need in the order of NOK 8 billion.

### Cycling along the national highway network

Building separate foot and cycle paths along the national highway network began early in the 1970s, with a total of 3,000 km now built.

The regulation pursuant to Section 13 of the Roads Act stipulates that planning and expanding the road networks shall address facilitating foot and cycle traffic. There are sections of road that for safety or environmental reasons are not open to all road user categories. This pertains to motorways and some tunnels, for instance. The Norwegian Public Roads Administration has a special responsibility for there being an alternative for cyclists on such sections. Providing such alternatives, which will primarily be alternate routes, if feasible, around the tunnels, will be a long-term effort.

The need remains for a further 1,850 km of foot and cycle paths along the national highway network. Assuming a price per running metre of NOK 5,000 yields an investment need in the order of NOK 10 billion. In choosing solutions, wider hard shoulders are acceptable as stopgap measures.

## Maintenance

Cyclists are a type of road user that is extra sensitive to uneven roadways, mud splashing and poor surface quality.

The booklet “Vedlikeholdsnormer i et sykkelperspektiv” (Maintenance standards from a bicycle’s perspective), issued by the Norwegian Association of Municipal Engineers in August 2001, introduced the concept “user-optimal standard”. These standards describe conditions that are important to cyclists. Although the introduction of “user-optimal” standards will make maintenance more costly, much of the impact can be attained by devoting more attention to a clean and even road surface and to signposting and marking.

## Combining cycling and public transport

Policy aims should be secure bicycle parking at relevant transport stops and building safe cycle links between built-up areas and such stops. In 10 minutes a cyclist covers a distance of 3,200 metres as opposed to 800 metres for a pedestrian. Such a quadrupling in distance yields a sixteen-fold increase in the area a transit stop serves.

In a number of situations people want to take their bicycles along on public transport. Schemes are needed to make this possible, such as contracts permitting bicycles to be taken along on buses, passenger ferries, trams/trains and aircraft. For modes of transport with rush-hour peaks, this will have to apply outside of rush hour.

## Employers need to encourage cycling in connection with work

Concrete examples of employer encouragement will be exercise and shower facilities, remuneration for bicycle use in connection with work, secure bicycle parking and subsidies for purchasing a bicycle. There are good examples of company schemes to benefit cyclists resulting in more cyclists.

## Leisure and holiday cycling encourages everyday cycling

Leisure cycling comprises 2/3 of all bicycle journeys (see table in Appendix 1). Facilitating leisure time bicycle use is primarily a local responsibility, since this involves measures in residential or other neighbourhood areas. It involves cycling for fun and to run errands, bicycle trips in the countryside and cycling for sport.

A survey conducted in 2001 showed that more and more Norwegians wish to go on cycling holidays in their own country, and that cycling holidays are one of the leading forms of active holiday in Norway.

The Norwegian Public Roads Administration plays an active role in signposting bicycle routes. In its efforts to find routes, the administration is to ensure that set traffic safety and road quality standards are met. At the same time, the emphasis is to be on showing off attractive areas, natural beauty, cultural landscapes and other attractions.

## The regulations need to encourage cycling

The responsibility for administering the relevant legislation has been delegated on various levels and among several ministries. An ongoing

evaluation of the legislation can ensure that the laws are modified in step with societal developments. The main document contains recommendations relating to cycling that merit consideration.

### Increased knowledge and expertise

If bicycles are to assume a greater share of the public transport burden, we need to know more about what must be done to get people to cycle instead of drive. Little has been done in Norway to follow up and evaluate cycle paths and the like. Since the mid-1970s the Norwegian Public Roads Administration has been registering the “number of kilometres of foot and cycle paths”, but there is a need for reporting that tells us more about the quality of facilities for cyclists.

In connection with planning for increased bicycle use, it is important to preserve the expertise of users. In Norway, the Norwegian National Cycling Association represents the top user expertise relating to bicycle traffic and cycling. It is crucial for this user expertise to be preserved and refined, for the benefit of others working on matters relating to bicycle use.

### Information and motivation

Comprehensive and targeted marketing measures must be implemented aimed at safe and attractive cycling. The message on the national level needs to be followed up and amplified by a wide array of local activities. National media campaigns should be followed up and amplified by activities locally and in a network of “bicycle towns”.

