

Velo Mondial 2006

Market place

Category 2 : Facilities for cycling

Title : Town planning and cycling.

Subtitle (Dutch) urban and regional planning and the incorporation of bicycle friendly facilities.

Author : William Nederpelt MPG

Position : Representative

**Organisation : The Dutch Cyclist Union The Netherlands
(Fietzersbond Nederland)**

Date : Cape Town, March 2006

E-Mail : Nederpelt@freeler.nl

ABSTRACT	3
INTRODUCTION.....	4
1. RAILWAYS	5
1.1.1 INFRASTRUCTURE	5
1.1.2 CONCLUSIONS	6
1.2 IMPROVING BICYCLE SHEDS	6
1.2.1 CONCLUSIONS	6
1.3 BICYCLE RENTAL	7
1.3.1 CONCLUSIONS	7
2. MOTORWAYS	8
2.1 CONCLUSIONS	8
3. WATERWAYS.....	9
3.1 CONCLUSIONS	9
4. TOWN PLANNING.....	10
4.1 CONCLUSIONS	10
5. UNHELPFUL DIRECTIVES	12
5.1 CONCLUSIONS	12
6. WAKE AKE UP CALL FOR POLICYMAKERS	13
6.1 CONCLUSIONS	13
7. OVERALL CONCLUSIONS:	14
7.1 INFRASTRUCTURE	14
7.2 PSYCHOLOGICAL	14
7.3 HOUSING.....	14
7.4 OVERALL.....	14
THE AUTHOR.....	15
REFERENCING	16
BOOKS:	16
WEBSITES	16

ABSTRACT

As town planning continues it seems obvious that it affects the way people travel by bike.

In The Netherlands there has been a desk and field research which was especially focused on the way barriers did occur in town planning and in some way could be demolished. This research was started by the Dutch Cycling Union who was faced with ever more barriers for cyclists. These barriers are both infrastructural as psychological. This research was mainly done by advocates of the Dutch Cycling Union.

This research resulted in a brochure which contained a lot of examples of the way cycling can be influenced.

The results of this research were presented at the provincial government in November 2004:

- Find ways and means of scoring small successes and use these to instigate new initiatives.
- Show what advantages may be got for all modes of traffic, and not just for the bicycle.
- Plan projects in consultation with all stakeholders, including neighbouring municipalities.
- Traffic jams, air pollution and the overweight of many commuters nowadays are strong arguments for investing in cycling.
- Check building plans for the incorporation of necessary cycling facilities.
- Include provisions for cycling in the overall budget for projects, so that discussions and investments later on, can be avoided.
- Safety provisions are not only crucial as a result of the process of construction, but also during the actual period of construction.
- The provision of adequate public transport in combination with good cycling facilities will reduce the use motorised transport.
- Successful urban planning can bring benefits to a much larger hinterland or suburban regions and help reduce both congestion along transport roads and the wastage of energy by excessive commuting.
- Check all regulations on the positive and negative effects of cycling.
- Check all new plans on infrastructure on the effects of cycling.
- Take the effects of these checks in consideration when making decisions.
- Make overall plans on traffic instead of focussing on one particular modus.
- Take cycling element in consideration in early times of planning as it gives the architect maximum space in designing.
- Take cycling elements into consideration in early times so that the costs can be minimised, instead of being high and of a low quality at the end of the process of planning and building.
- Include cycling elements in the overall budget of the projects so it makes prevents discussion in a later phase of the projects and it makes the planning's more realistic.
- To plan projects with all the stakeholders.

The results of this research, which are not typical for the province of South-Holland, are a good example for many other states.

INTRODUCTION

We usually attribute such notions as 'slow' and 'slow-moving' to losers. But we all know that cycling need not necessarily be a slow mode of transport. It all depends on the way you look at it.

Dutch opinion holds that in urban areas distances within 7.5 kilometres (approx. 5 miles) cycling can easily compete with any other mode of transport.

That is one of the reasons why we, in The Netherlands, want to encourage the use of cycles, especially in busy urban areas. In those areas no mode of transport is as clean, fast and reliable as the bicycle.

In this paper I would like to point out how the Dutch Cyclist Union has been able to put barriers as an aspect of planning on the political agenda. To do so there has been a process of informing all 12 provinces in The Netherlands.

Especially in the case of the Dutch province Zuid-Holland (South-Holland) a great deal of time was spent on field and desk research regarding the increase of infrastructural impediments for cyclists. This research was mostly carried out by volunteers

Based on our experiences in this Dutch province, I propose to tell you a little about our experiences and the ways and means we used to avoid the formation of barriers for cyclists, or even how we managed to use such barriers to our advantage.

As for this audience it is not interesting to know the whereabouts of these barriers in The Netherlands. So this presentation will contain information about the way you might avoid barriers in general or even can make use of them.

The following barriers may be of influence for cyclists:

- **Railways**
- **Motorways**
- **Waterways**
- **Town planning**
- **Regulations**
- **Politics**

1. RAILWAYS

In this paragraph I will describe three aspects concerning railways and which has been proven to be some kind of a barrier.

These are the railway itself as construction, the cycle sheds at the place of departure and the possibility of renting bikes at the place of arrival.

1.1.1 INFRASTRUCTURE

Underneath I will shortly describe the old railway and after that the new railways.

In the past there were a lot of small railway organisations. With the outburst of the motorised transport it was also the decline of those company's. What remains was a number of touristy / historic railways and the embankments which were forgotten. These embankments can be used as good bedding for new cycle-tracks.

Since the introduction of high-speed trains, starting in France, railway-tracks need more than ever to avoid any delaying bends and turnings in the track and also level crossings. So it was necessary to make a new infrastructure, new embankments.

In the case of the province (Zuid-Holland) South-Holland there are two great infrastructural projects which influenced the commuting traffic and because of that probably the short cuts for cyclists.

These were the new railway-track the (Betuwelijn), between the harbour of Rotterdam and the industrial areas in Germany; the other is the railway-track for the high-speed train which will run between Amsterdam and Brussels.

Has the realisation of these projects had any lasting effects for cyclists? Did cyclists encounter many new impediments? Or did they profit by these infrastructural projects? In fact both projects had a surprising outcome for commuting cyclists.

- For the benefit of cyclists a 'left-over' railway embankment was transformed into a cycling-track
- Whenever a thoroughfare for cyclists was blocked by the construction of a new railway-track, builders had to provide an alternative in the form of a bridge or a tunnel for cyclists
- When planned slopes proved to be too steep for cyclists, designs had to be re-adjusted. This was the result of fierce opposition by the DCU.
- All emergency bridges constructed every 500 metres along the railway-track or near high risk areas, were made available for the use of crossing cyclists.
- During the construction of the new railway-tracks the constructors and the stakeholders, stayed in touch with each other, including the DCU. Doing so accidents were avoided which might have been caused by the amount of freight traffic. It also leads to better temporary traffic diversion routes for cyclists.
- For a period of five years the cycle-link between two suburban areas was blocked by the construction of a new rail-track. For commuting cyclists this meant that they had to make a detour of approximately 1.5 kilometres. This was not a good experience and may even have encouraged some cycling commuters to transfer to some kind of motorised transport for always.

The construction of new railway-tracks may give rise to longer cycling distances and so increase the use of some kind of motorised and less sustainable mode of transport.

Next to these new constructions there is a movement to avoid any street level crossings with all existing rail-tracks. So the Dutch Government started a campaign to close all kind of street level crossings by replacing them by bridges or a drive through. There were several arguments for closing these crossings:

1. The safety of all modes of transport car drivers, cyclists and pedestrians.
2. The safety of railway travel.
3. The reduction of railway accidents which may cause trains to run late.

Doing so it appeared that the authorities wanted to reduce the number of crossings. This would especially have a negative effect on non-motorised-transport and in a way promote motorised traffic.

However, after fierce research and oppression of several organisations the number of crossing which should be closed where minimised. Certainly, whenever the safety of people is at stake regulations should be tightened, but preferable not at the cost of non-motorised commuters. This because it was proven that accidents with trains were mostly caused by cars.

1.1.2 CONCLUSIONS

It is important to stay in touch with the designers and constructors in all phases of far-reaching projects. First of all to get results afterwards which meets the demands of cyclists but next to that to maintain safe and good cycling facilities during the constructions of those far-reaching projects?

For the railway organisation it might become safer. But, by not promoting cycling, because of the longer cycling distances, it is also promoting motorised transport. Safety measures, although well prepared, could lead to a situation which is even more unsafe.

1.2 IMPROVING BICYCLE SHEDS

In this paragraph I want to describe shortly the situation concerning the bicycle sheds at the railway stations for commuters.

In 2004 more than 19% of the commuters cycled to the nearest railway station. Due to postponed maintenance the Dutch Government decided in 1997 to invest over €300 million in the replacement of old cycle sheds in 380 railway stations. Before replacing these sheds some inquiries were made into the sizing of new sheds. Furthermore, they were designed to meet modern standards.

Although it seemed okay, according to the estimated planning, the capacity of all replacements was soon too small. So they had to be enlarged because of the pull effect which appeared. On the other hand it was not expected that having good sheds would stimulate people to travel more by train. But it appeared to work that way. This was the reason why the city of Amsterdam decided to invest €100 million in bicycle sheds at transferia, i.e. central points near urban areas where commuters can park their cars and transfer to some mode of public transport.

1.2.1 CONCLUSIONS

There was a greater overall need for cycling sheds than was initially anticipated. So probably, not having good facilities for bike parking is a barrier for people to travel by train.

A small success may instigate new initiatives, especially when expectations don't run too high.

1.3 BICYCLE RENTAL

The rental of bikes on a modern way at the point of arrival is described in this paragraph.

Due to the fact the described cycle sheds mainly had a positive effect on the place of departure, while most commuters did not have their own modes of transport on the place of arrival, the project "Public transport bike" (ov-fiets) was started (only 17% of the commuters did use a bicycle after arriving at the railway station in 2004). Before 2004 it was possible to rent a bike at the railway station. The problem was that it always caused a lot of paperwork and time, each time when someone wanted to rent a bike.

Research learned that 25% of the users of the ov-fiets were travelling more by train than before while even 12% had replaced a trip by car by a trip by commuting train. So it had a positive impact on the transport mode.

The concept of the ov-fiets is simple. To rent a bike the commuter has to register once-only. After that you can let your Railcard be scanned at the entrance of any establishment concerned with rental bikes. Every month you will receive the account by e-mail. The total costs are automatically debited from your bank account.

Because of this success the national, provincial and local authorities are planning new locations for the ov-fiets. This is even not limited anymore to **railway** stations but also spread to other transferia in different provinces.

1.3.1 CONCLUSIONS

There proved to be a greater demand for bike rentals than was initially anticipated it even attracts new travellers.

New techniques are giving opportunities to diminish barriers for renting bicycles.

A successful project will give rise to new initiatives, especially when the expectations don't run high.

2. MOTORWAYS

Concerning the motorways there are two developments which are probably affecting the quality of cycling. These are described shortly underneath.

First of all the number of highways is increasing, although there is opposition from different advocacy groups like the Dutch Bicycle Union. Because the capacity of highways is not sufficient the authorities are planning to upgrade a certain group of secondary roads. Without doubt such a course of action will increase air pollution. Doing this it will also effect the possibility for cyclist to cross these roads. As difficult crossings are not grouped under the official category of barriers for cyclists, authorities need not provide alternative solutions, such as a bridge or a tunnel. Up to now the Dutch Cycling Union has been trying to get this item on the political agenda. One way to delay the upgrading of secondary roads is to reduce the use of cars by encouraging the use of the bicycle and public transport as a reasonable alternative. The other way is to stimulate the building of bridges and tunnels for cyclists. Whatever happens the upgrading of secondary roads will not only temporarily inconvenience motorised traffic, but hinder non-motorised traffic permanently. This inconvenience affects the cost of investment. By informing the authorities of these aspects early, other decisions may be made and bicycle friendly facilities even taken into consideration.

Second of all the maximum speed on motorways which cross urban areas has in some cases been reduced to maximum 80 km recently. One of the reasons for this measure was to combat air pollution in urban areas. Cyclists on adjoining cycle paths have profited too, as they now experience less inconvenience from exhaust fumes. The measure has also helped to increase road safety and reduce the amount of standing traffic.

2.1 CONCLUSIONS

For the authorities the negative effects of facilitating motorised traffic on cycling are underestimated.

The increasing traffic jam is a treat for cyclists in many ways.

3. WATERWAYS

Waterways in The Netherlands are both a blessing and an obstacle. These aspects are described underneath.

For five years now a ferryboat has been conveying passengers between Rotterdam and Dordrecht (20 km). At first the enterprise was not such a success. But when commuters no longer had to pay for the transport of their bicycles, the number of passengers increased. Recently a new ferryboat with ample space for bicycles has been taken into service. Especially during the rush hour many commuters make use of the ferry. During the day the ferry is very popular among tourists. Nowadays the ferry's nickname is 'the floating bicycle path'.

Besides this long distance ferry between Rotterdam and Dordrecht there are smaller ferries that carry commuters across canals and rivers. Ferry-services are generally subsidised by both provincial and local authorities. This is not a very satisfactory way of financing, especially when one authority decides to withdraw the necessary funds, as happened in 2005 to the ferry between Zwijndrecht and Puttershoek. This withdrawal could have forced the ferry out of service, causing severe traffic jams to the inconvenience of both daily commuters and tourists. Thanks to a lobby initiated by the Dutch Bicycle Union the ferry between Zwijndrecht and Puttershoek got a new lease of life.

Lately the Dutch Bicycle Union has been looking into the means of using existing constructional works to the advantage of cyclists. A good example of such an experiment is the recently opened bridge in Nijmegen (snelbinder). In this case a bicycle bridge was attached to an old train bridge with no additional costs. Moreover the experiment turned out to be a great success! Nowadays approximately 20.000 cyclists cross the bridge daily.

3.1 CONCLUSIONS

Ferries and bicycles are going very well together.
Subsidising ferries by different authorities is a risk for all participants.
Existing train bridges can probably easily be of use for cyclists by a relatively small investment in an attached bridge.

4. TOWN PLANNING

Now I would like to move on to the subject of town planning. This is the phase in which the first draft (outline) regarding the various modes of transport is drawn up or an area is being restructured.

For the benefit of planners of new urban regions the Dutch Ministry of Economic Affairs has developed a system called 'Vehicle kilometres on the spot'.

The notion behind this scheme is that taking into account the three modes of transport (walking, cycling and motorised transport) can help improve the physical design and layout of new urban areas.

The first and slowest mode of transport (walking) means that everybody should be able to reach all locations on foot. The second mode (cycling) implies that practically all the locations should be approachable by bicycle. The third mode of transport means that every kind of motorised transport should be able to reach all areas necessary for the delivery of goods.

By planning in this way, the negative aspects of motorised transport can be reduced whilst improving urban environment at the same time.

By planning in this way, one can reduce the negative aspect of motorised transport while on the other hand the quality of the neighbourhood is improved. At the same time, the space and energy which is necessary to accommodate all modes of transport are reduced.

Next to these principles, which can be used by planning cities, it is also important to have good facilities for the different modes of transport at the right time.

This means that e.g. for new suburbs there are good cycling facilities as from the start. This is important because moving into a new area is a lifetime event. And as lifetime events are the most important moments when people make a choice out of the different modes of transport, which are available, it is important to have good cycling facilities available at that time.

The city of Lelystad is an example of new town planning gone wrong. This town was built nearly 50 years ago in the Dutch polders near Amsterdam. In first instance its only connection with the outside world was by road. This meant that all commuters to Amsterdam or thereabout had to purchase a car and soon got used to this mode of transport. Not until 1988 did Lelystad get a railway connection with Amsterdam. At that time Lelystad was well provided with facilities for cyclists. But because of the lack of public transport to Amsterdam commuters were wholly dependent on their own modes of motorised transport. The same almost occurred five years ago to new urban areas in the vicinity of The Hague. These areas were located on the other side of several motor- and waterways and therefore isolated from old towns (down town) nearby. Thanks to persistent pressure by the Dutch Bicycle Union some bicycle bridges across the already mentioned motor- and waterways were incorporated in the plans for these urban areas. The bridges are under construction now. It is of the utmost importance to incorporate good cycling facilities in all planning for new urban areas. Only then will commuters be free to choose their mode of transport.

4.1 CONCLUSIONS

It is important to have a good public transport and facilities for cyclists in place. Both modes of transport connect/inter-act well together. Having the one without the other will only stimulate the use of motorised transport and not relieve traffic congestion.

It is important not only to have good provisions for inner-city cycling but also to have good inter-urban cycling connections.

Furthermore is of great consequence to provide good cycling facilities in situations where people have to cope with live-time events, such as a removal to a new urban area on account of a new job or some other important event.

5. UNHELPFUL DIRECTIVES

There are a couple of directives which tend to oppose the use of bicycling and could become a virtual barrier for cyclists.

These are the safety certificate (theft prevention) and building regulations. Both of them are described underneath.

In spite the fact that 86% of the Dutch population owns one or more bicycles, builders and contractors of new housing are no longer held to provide in-house parking facilities for bicycles. In 2003 the Dutch authorities decided to leave it to market forces to work out the issue of indoor parking of bicycles. As was to be expected planners of new housing estates left no room for this. Consequently new housing estates build in the region of Amsterdam offer no space to put bicycles inside the home. Despite many protests from the Dutch Bicycle Union nothing has at yet been undertaken to redress this course of events. Thousands of bicycles are now parked out in the street, giving rise to much inconvenience and theft

The other hindrance for cyclists is the safety quality certificate drawn up by several parties, including the police. This certificate aims to make buildings less accessible for outsiders and to stimulate people to take more care of their own and other people's possessions.

This certificate sometimes gives rise to conflicting interests. As stated before there are three levels of transport to be taken into account, i.e. walking, cycling and finally the motorist. When planning parking areas for cars this method of three levels should also be applied. This implies that car parks should be planned out of sight, so that cars are less prominently present and will tempt fewer commuters to make use of them.

5.1 CONCLUSIONS

It is essential to reintroduce rules for the in-house parking facilities for bicycles. Not being able to park such an expensive possession within the home will encourage commuters to use other and less sustainable modes of transport.

Safety regulations can effect the location of car parks. On the one hand cars should be parked within sight so that the amount of car thefts may be reduced. On the other hand cars parked out of sight will bother pedestrians and cyclists less than those parked out in the road.

6. WAKE UP CALL FOR POLICYMAKERS

Policymakers aim to improve the living conditions of the population (I hope). As progress is often associated with more motorisation and computerisation, policymakers presume that the number of pedestrians and cyclists will gradually drop off. This presumption tends to withhold them from investing in good bicycle facilities.

Here I want to describe that this idea is a psychological barrier for policymakers to invest in cycle policy.

Recently we looked after the quality of cycling facilities in Rotterdam, a town which is well known for the low income of its population. The average income in Rotterdam is 10% lower than in the other three big Dutch cities (Amsterdam, Utrecht and The Hague). In Rotterdam the average use of the bicycle is 12.7%, whereas in other big towns the average use of bikes is 24.7%. Accordingly Rotterdam appears to have both to lowest average income per inhabitant and the lowest number of cyclists.

In fact by Dutch standards Rotterdam has a low percentage of cyclists (number 39 out of 40 cities). Research in Rotterdam regarding the use of different modes of transport is focused on the attitude of their inhabitants and not on the real figures. Doing so they will not find arguments in plans to accommodate cycling better. Lately the authorities in Rotterdam have launched a program to counter the negative effects of air pollution without spending one extra penny on cycling!

This is a remarkable course of events as it is well known that cycling contributes greatly towards the reduction of air pollution. Furthermore cycling promotes road safety and reduces the risk of becoming overweight in a natural way. In the more fashionable parts of Amsterdam trendsetters, such as lawyers and brokers, nowadays use bicycles as they are the fastest mode of transport in inner cities.

Someway this will tend to be some kind of a psychological barrier for policymakers and inhabitants for Rotterdam. A barrier which prevents them from investing in cycling policy.

Next to this wake up call to politicians it is important to understand that the implementation of good cycling facilities is usually delegated to local authorities who can only act locally. As commuters do not stop their journey at the borders of their municipalities, it is essential to incorporate long distance or regional cycling facilities in the planning for urban and rural areas. This is especially necessary for commuting students and for cycling tourists (a branch of industry which is booming). In some way these community border can become a real barrier for cyclists.

6.1 CONCLUSIONS

It is important erase all negative links between welfare and cycling. Further research into the positive effects of cycling might act as a wake up call to politicians and help to encourage the general public to accept the fact that cycling can contribute towards a better quality of life (reduction of air pollution, road safety and the general health of the population)

7. OVERALL CONCLUSIONS:

7.1 INFRASTRUCTURE

- Make overall plans regarding all modes of traffic instead of focussing on one particular modus.
- Check all designs and plans for new infrastructure on the consequences they might have for cyclists.
- Incorporate cycling facilities early on in the planning for suburban areas so that the costs can be minimised.
- Also take into account any new opportunities for cyclists which infrastructural plans may offer.
- Take the principles of Vehicle kilometres on the spot into account.

7.2 PSYCHOLOGICAL

- Find ways and means of scoring small successes and use these to instigate new initiatives.
- Show what advantages may be got for all modes of traffic, and not just for the bicycle.
- Plan projects in consultation with all stakeholders, including neighbouring municipalities
- Traffic jams, air pollution and the overweight of many commuters nowadays are strong arguments for investing in cycling

7.3 HOUSING

- Check building plans for the incorporation of necessary cycling facilities.

7.4 OVERALL

- Include provisions for cycling in the overall budget for projects, so that discussions and investments later on, can be avoided.
- Safety provisions are not only crucial as a result of the process of construction, but also during the actual period of construction.
- The provision of adequate public transport in combination with good cycling facilities will reduce the use motorised transport.
- Successful urban planning can bring benefits to a much larger hinterland or suburban regions and help reduce both congestion along transport roads and the wastage of energy by excessive commuting.
- Check all regulations on the positive and negative effects of cycling.

THE AUTHOR

William Nederpelt MPG (48) is living in Dordrecht, The Netherlands. He has been involved with cycling policy starting 1990. He is a member of the Provincial Council for Safety Road Traffic for South-Holland as from 1995. As the chairman of the Provincial Council of the Dutch Cyclist Union of the province of South-Holland (this includes the cities The Hague and Rotterdam) he is involved with all aspects of upgrading the way politicians handle cycling in their administration ever since 1998. As from 1997 up to 2001 he has been a member of the Advocacy Counsel for Public Transport for the province of South of Holland. As from March the 7th 2006 he probably will be elected as a city-councillor for the municipal of Dordrecht. Professionally he is a consultant Human Resources for the municipal of Rotterdam.

REFERENCING

BOOKS:

- Bot W. and Theunissen L. *Fietsen met obstakels in Zuid Holland 2004*. Fietzersbond Zuid Holland, Utrecht, The Netherlands.
- Nederpelt, W.J.M. 1999. *Een grensgeval in Zuid Holland*. Fietzersbond Dordrecht, The Netherlands.
- Rijkswaterstaat. *Kerncijfers regionale bereikbaarheid 2005*. Ministerie van Verkeer en Waterstaat, The Hague, the Netherlands

WEBSITES

betuweroute.nl

ccv.nu

cos.rotterdam.nl

dcmr.nl/en/

ebit.novem.nl/projecten/vpl/rapporten/docs/eindrapport.pdf

fastferry.nl

fietsberaad.nl

fietzersbond.nl/zuidholland

fietsparkeur.nl

hollandrailconsult.nl

ns.nl

ov-fiets.nl/engels

prorail.nl/Prorail/English

raivereniging.nl

rws-avv.nl/pls/portal30/docs/13396.PDF

rws.nl/rws/bwd/transferium/engels/

vananaarbeter.nl/NotaMobiliteit/

vrom.nl

waterbus.nl