Response to consultation: A sustainable future of transport

To: The European Commission
From: the Netherlands Society for Nature and Environment
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1. Introduction

About us

Stichting Natuur en Milieu, The Netherlands Society for Nature and Environment, is an independent environmental organization committed to securing a healthy natural environment. Our main strength lies in influencing the policy-making process. In order to achieve this, we organize publicity campaigns and stimulate discussion and debate. We also conduct research and publish our findings. We mobilize public opinion and put pressure on key policymakers at the European, national and regional levels. When necessary, we turn to the courts, but we prefer cooperating with other parties to find solutions. We build coalitions and work on concrete proposals
Stichting Natuur en Milieu consists of about 80 enthusiastic professionals operating in four teams: Spatial Planning and Mobility, Nature and Agriculture, Climate and Energy, and Economy.
Our work is made possible by financial support from the Dutch government and grants and donations from individuals, charitable foundations and a number of companies. Since 1997 we have been receiving support from the Dutch Lottery, de Nationale Postcode Loterij.

Why this document

The European Commission has called for input to their discussion on the Future of European Transport, following the publication of its Communication on A Sustainable Future of Transport: Towards an integrated, technology-led and user friendly system.

The Spatial Planning and Mobility team of Stichting Natuur en Milieu (the Netherlands Society for Nature and Environment), has a lot of history in taking on issues of transport and spatial planning in an integral way. The Netherlands are a densely populated mainport for Europe with fairly green credentials, where mobility issues and spatial planning are closely intertwined, simply due to the fact that there are always several claims to every available square meter in the country.

To tackle the climate and transport challenges the EU faces, we need to look far beyond 'business as usual' measures and scenarios. In our opinion, the Communication of the Commission avoids asking the 'tough questions' of the necessity of transport, and the best means to facilitate transport that is necessary. In the Netherlands, the fact that we cannot consider transport as a separate issue from spatial planning slowly sinks in. We believe that future EU transport policy would be far more sustainable if it could be linked to spatial planning.

Also, it is necessary to start limiting the CO_2-emissions from the transport sector. A separate Emissions Trading System for surface based transport would set a cap on these emissions, and a clear plan to reduce the size of this cap.

With this response to the Commission's Communication, we address these issues. First, we argue why the business-as-usual approach is insufficient, after which we discuss the merits of a separate ETS for surface based transport, and we conclude by presenting the 'Mobility Ladder', an approach to address transport and spatial planning simultaneously.

2. Arguments setting guidelines for sustainable future EU transport policy

Arguments are substantiated in Annex 1.

1. unlimited transport growth will not continue

Studies predict that from 2020, Dutch road traffic volumes will no longer grow, making billions worth of long-term investments –aimed at continuous growth- obsolete. We expect the same to be true for the EU, as the underlying causes are not limited to the Netherlands. Ask yourselves this question: are we spending billions on building for the future or for today's problems?

2. road infrastructure investments do not solve congestion problems

Most investments in roads don't structurally solve congestion problems. In fact in most cases they move the same problem to other parts of the infrastructure network. There are other measures that do have a positive effect on congestion levels.

3. continuing urbanisation calls for a change in urban mobility design

The urbanisation trend in Europe increases the share of urban mobility in the EU's total emissions, making urbanisation and infrastructure planning an urgent topic the EU should take up despite the classic subsidiarity-principle-argument.

4. European mobility policy is not yet in line with climate policy

EU climate policy should dictate stimulating alternatives to (for instance) EU-domestic aviation. Why does the EU not invest in an EU-wide high speed rail network by introducing internalisation of external costs on road transport? Such a project should of course keep in mind that valuable ecological areas and complex urban environments should not be harmed by new infrastructure.

5. more infrastructure = more transport volume = more CO_2-emissions

Without pay-per-km mechanisms in place, highways will continue to be considered a public utility. It is time to stop structurally facilitating a modality with so many external costs to society.

6. the economic benefits of building infrastructure are being overrated

There are many myths about both the congestion effects as well as the economic benefits of road building. We propose to publish a "mythbusters report" on European level.

Examples from the Netherlands

linking road pricing and road building

In the Netherlands, Stichting Natuur en Milieu has managed to make policy makers see the connection between road pricing measures and road building decisions. Because the Netherlands will adopt a country-wide road charging scheme starting in 2013, we have argued that most planned roads are not necessary to cope with increasing transport volumes, because the upcoming pricing measures will reduce the transport volume.

One should first determine how high the demand will be after pricing, and arrange infrastructure projects accordingly. When the prices for road users are determined, one can make a cost-benefit analysis to decide on how to tackle congestion bottlenecks: raise the price per kilometre at peak times, or build new infrastructure. Only if the congestion costs of the price per km turn out to be exuberantly high, new infrastructure could be a solution.

With the EU debating the revision of the Eurovignette directive, we also have a legal basis to support this discussion.

In our experience, it has proven very valuable that we developed a vision on the relation between road charging and road building in an early stage, because the policy debate is a chaotic and complex one. Because our vision is one of the few clear ones that takes the entire discussion into account, we manage to get many of our points across into legislative decisions.

positioning infrastructure building as part of regional agendas

Due to our efforts, Dutch parliament passed a motion obliging regional governments to draft a "regional agenda" for integral decisions on mobility and spatial planning, together with national government. This agenda defines bottlenecks, intersections of infrastructure projects and nature conservation areas, important recreational areas, residential zones, commuting traffic, urbanisation, etc. Government will translate the passed motion into legislation, making the regional agenda's an obligatory and determining factor in infrastructure investment priorities.

3. An ETS for surface-based transport

Introduction

Several stakeholders in the Netherlands have started thinking about an emissions trading system for surface based transport. Being part of several groups of stakeholders where these trains of thought are entertained, Stichting Natuur en Milieu (N&M, the Netherlands Society for Nature and Environment) busies itself with this topic, too, and plays an active part in stimulating the debate. N&M is conscious of the fact that in order to eventually make the debate an environmental success, a similar debate should be stimulated in the European Union.

In the Communication from the Commission (COM(2009) 279/4a, "A sustainable Future for Transport") and related background document, a separate Emissions Trading System (ETS) for surface-based transport is briefly mentioned in relation to the option of a CO_2 tax.

Stichting Natuur en Milieu would hereby like to submit our opinion on the added value of a separate ETS for surface based in relation to a CO2 tax to the European Commission's Future of Transport debate.

Why an ETS for surface-based transport?

Transport sector CO_2-emissions are still rising

The transport sector is the only sector where CO2-emissions continue to rise. In fact, from 2020, all allowed European CO2-emissions will be used by the transport sector (including shipping and aviation). Continuing growth of mobility and dependency on oil have lead to structural behavioural effects and geo-economic patterns that cannot easily be changed. The longer we wait, the harder and the more expensive it gets to change these patterns.

Climate goals are under pressure

Measures to tackle climate change from the transport sector, such as CO2-limits for passenger cars and quantitative targets for mixture of biofuels, are insufficient to create the turning of the tide that is needed. In the Netherlands, it is now starting to show that the climate targets for the transport sector will not be met. It looks like the CO2-limits for passenger cars will come into force to late, and be too much watered down.

More is needed!

Given the environmental, economic and social effects of the Earth's rising temperature, and the limited effects of climate policy on the transport sector, additional action is needed to bring about large scale reductions, transitions and effective policy measures. An emissions trading system with a CO2-cap is an effective policy measure, which can bring about large scale CO2-reductions and necessary transitions.

In the Netherlands, much research has already been done to get an idea of the contribution an emissions trading system can contribute to reducing the CO2-emisions of surface-based transport. This research was carried out as part of Green4Sure, the green energy plan drawn up by several environmental NGO's and the workers' union FNV.
The results have been promising, which was reason for N&M to fuel the national debate on the topic, with the result that several stakeholders have expressed their interest in an emissions trading system for surface-based transport. Also, a local experiment with emissions trading in the transport sector is currently being developed.

Outlining a principle of emission trading for surface-based transport

A cap on emissions will limit CO2-emissions

The basis for any emissions trading system for surface-based transport, is that a maximum (or cap) is set for the CO2-emissions of the surface-based transport sector. This cap is to be lowered annually, following a roadmap leading to targets set for CO2 emissions, which guarantees that these targets will actually be met.

Next, the emission permits are auctioned to the fuel producing industry (up stream). The fuel producers can produce and sell an amount of fuel equivalent to the amount of CO2-permits they have obtained. The more 'CO2-efficient' the fuel is, the more fuel the producer is allowed to sell.

The costs of the CO2-permits is partially internalised in the price of fuel, which increases the price of 'CO2-guzzling' fuels.

The effects of such a system are threefold, all contributing to lowering CO2-emissions:

1. individual consumers are faced with higher prices. He or she is stimulated to drive more efficiently, drive less and/or buy a more fuel-efficient vehicle.
2. The latter will stimulate the demand for more fuel-efficient cars, stimulating car manufacturers to increase their effort in bringing them to the market.
3. When CO2-permits are scarce enough, the fuel producing industry will invest in more fuel-efficient fuels.

Organising the emissions trading system

Aviation has already been made part of the larger European emissions trading system (EU-ETS), and maritime shipping is likely to be made part of it in the future. For the remaining modalities (surface-based transport of passengers and goods, rail-transport and inland shipping), a separate emissions trading system is necessary.

Prime argument for this is, that the price for CO2-permits under the EU-ETS is too low: the transport sector will buy additional permits from other sectors and not accomplish any CO2-reductions on its own accord, thus again evading all policy effort that has already gone into reducing CO2 in other sectors. Within a separate emissions trading system, a higher price for CO2-permits is possible, because:

- a significant number of options to reduce CO2-emissions is still not being implemented by the sector. A financial incentive will get these options off the shelve;
- many other measures (such as mixing in biofuels) are also expensive;
- high fuel prices will make CO2-reduction more cost-effective.

The separate ETS for the surface-based transport sector would complement policy measures such as the Regulation on CO2-emissions for passenger cars, the Fuel Quality Directive and the Green Transport Package, and not replace them. All policy measures are needed to achieve climate goals.

Added value of an emissions trading system compared to CO_2 tax

A separate emissions trading system for the transport sector is the most effective way to actually achieve the European Union's CO_2-targets, as well as internalise the external costs of CO_2-emission from the transport sector.
The most important added value of an ETS is the cap-and-trade principle, which is the only way to guarantee that reduction targets are actually achieved: the sector's total CO_2-emissions have to remain below the cap. Given the urgency of reducing European CO_2-emissions, and the ever increasing CO_2-emissions of the transport sector, this kind of guarantee is inevitably necessary. CO_2-taxation systems do not offer this guarantee in any way.

On top of that, many fiscal instruments around transport (registration tax, circulation taxes, fuel excise duties), are already being differentiated on the basis of CO_2-performance of cars. This will lead to large scale confusion, because a general CO_2-tax for the transport sector will be seen as a double tax. By proposing a CO_2-tax, the Commission would in fact build up a lot of resistance among the transport sector, weakening the position of the proposal. This way, CO_2-reduction targets will not be achieved.

Conclusion

A separate emissions trading system for the transport sector is a promising instrument to guarantee the CO_2-reductions within the transport sector, which the EU needs to achieve its overall climate and CO_2-targets. We therefore urge the European Commission to thoroughly research this instrument, and explicitly include it in the White Paper "A sustainable Future for Transport".

4. Replacing road building myths with the “mobility ladder”

Dutch transport policy increasingly revolves around the issue of “bereikbaarheid”. It is telling that a proper translation does not really exist. A location is “bereikbaar” when it can be reached, so “reachability” may be a good translation.
Reachability is a significant challenge for the Dutch, because the country is small, densely populated and serves as an important mainport for the European Union. And as soon as congestion strikes again, road users and politicians alike cry out for asphalt: bottlenecks in the infrastructure system should be fixed by building more roads, fly-overs, bypasses, etc.
But it is not only in the Netherlands that road building is persistently considered a solution to reachability-problems. When in fact more asphalt leads to more traffic, more pollution, but not to structural improvements in reachability. And all this at significant costs.

The mobility ladder: an alternative line of thought

The Dutch government is working to modernise the decision making process surrounding new infrastructure en spatial planning. This new system is basically a prescribed set of preferred considerations, which should come before the decision to build new infrastructure. It reprioritizes investments and measures, achieving an economical and sustainable result. This system is named the “mobility ladder”, and consists of seven steps:

1. solve reachability issues with spatial planning (e.g. reposition industrial zones relative to residential zones)
2. apply road charging, preferably differentiated according to time, place, and environmental characteristics
3. initialize mobility management issues with the biggest traffic generators of the region (i.e. variable working/opening hours, working from home, etc.)
4. optimize public transport networks and provisions for cycling
5. optimize the use of existing infrastructure (e.g. by reducing speed limits)
6. adapt existing infrastructure (i.e. small changes like markings on the road)
7. build new infrastructure

The mobility ladder on EU level

We firmly believe this new line of thought will lead to more holistic and sustainable decision making, which we would like to achieve on a European level. Although the kind of decision making the mobility ladder is originally intended for lies with lower governments (due to the subsidiarity principle), many European policies and investment programmes (e.g. the European Fund for Regional Development) have many effects on local, regional and national decision making. We vision the mobility ladder being made part of the conditions applying to these funds.

Annex 1: Argument substantiation

1. transport growth will not continue

Predictions for future mobility (i.e.) after 2020 show growth figures will decline. Meanwhile, long term investments of billions of Euros are reserved for roads, an investment that may become largely obsolete.
The underlying cause of the stabilisation of road traffic volumes in the Netherlands are demographic trends, causing the population size to decline from 2030 onwards. These figures are similar in other EU Member States.

2. road infrastructure investments do not solve congestion problems

Most investments in roads don't structurally solve congestion problems. This is a lesson that's gradually being accepted by policy makers in the Netherlands. There are other measures that do have a positive effect on congestion levels.
The Dutch national parliament passed a motion that prescribes a new line of thought that is to precede any investing framework for decision making. It consists of seven steps that need to be followed to decide on the most efficient way to solve (e.g.) a congestion bottleneck. Building new infrastructure is only the last of these steps: first decision makers have to look at the possibilities of urban planning, road charging schemes, congestion charging, public transport and cycling, mobility management by companies. The name of these seven steps translate into "Mobility Ladder". The seven steps are described under "Replacing rad building myths with the mobility ladder".

3. continuing urbanisation calls for a change in urban mobility design

The urbanisation trend in Europe is predicted to continue. This makes our cities grow, calling for specific and most of all efficient transport solutions. High speed and high frequency are key. In most cases, this calls for specific solution for a geographically limited area (urban agglomerations), where local and regional political levels meet.
Because of these decentralised political levels, the EU keeps away from these issues in the best tradition of the subsidiarity principle. But as urbanisation is growing, so is the share of urban mobility in the EU's total emissions. On top of that, urban areas are being densely populated and the public health effects of noise and pollutants from urban mobility are therefore extra present.
The EU of course has relevant policies in place, but none of these explicitly address the organisation of spatial planning and urban transport systems.

4. European mobility policy is not yet in line with climate policy

Although the EU has set climate targets, its transport policy and investment agenda's are not yet in line with this climate agenda. This is best visible in the case of intra-European travel. First of all, as yet unpublished studies by CE Delft, commissioned by Natuur en Milieu, show that the growth of aviation is not in line with the European climate ambitions. Options for technical absolute CO_2 reduction are not (and will not be) available before at least 2030.
Second, this means that between 2020-2030, a massive share of CO_2 credits from the ETS will be needed by the aviation sector. Costs of flying will sharply rise and less people will fly. But this will not eliminate the need for people to travel within Europe, meaning there will be a need for intra-European substitutes for flying. We predict that the majority of intra-European (transfer-)flights will be substituted by intra-European high speed rail connections.
Policy should be put in place to facilitate and speed up this shift towards an intra-European high speed rail system. The investments needed could for instance be generated by introducing an EU-wide tax on road freight transport, which is justified by the notion of internalising external costs for the transport sector.
Of course, when investing in new rail infrastructure, the EU should of course keep in mind that valuable ecological areas and complex urban environments should not be harmed by new infrastructure.

5. more infrastructure = more transport volume = more CO_2-emissions

Dutch studies are available that show that, in stead of solving congestion issues, extra stretches of asphalt only increase traffic flows. Although this seems counterintuitive to many people, it makes

sense that a transport system that is being facilitated structurally, without any per-km-price mechanisms in place, will be utilized to the absolute limits of its capability. Indeed, it takes the status of being a public utility, many car drivers even claim driving is their “right” (a claim many right wing liberal politicians in the Netherlands copy).
In the Netherlands, these extra infrastructure plans account for approximately 1 Mton of extra CO_2-emissions.
See also “Replacing road building myths with the mobility ladder”.

6. the economic benefits of building infrastructure are being overestimated

Aside from the misconception about the problem solving capabilities of building roads mentioned above, evidence suggests that the economic benefits of road building are being overestimated. To our knowledge, no solid cost-benefit analysis on this subject has ever been undertaken, let alone on a European level.
See also “Replacing road building myths with the mobility ladder”.