1. Traffic trends

No definite figures on 2009 are available yet. Hence we give you an historic overview up to 2009. However, we have seen a reduction in traffic volumes during 2009 as a result of the economic crisis. From earlier studies and research we do expect that the traffic volumes for 2010-2012 will roughly continue their trend from before the economic crisis once this is over.

Development of passenger transport

Since 1985, the mobility of the Dutch population aged 12 years and older has increased by nearly 40 percent to a total of 171 billion passenger kilometres. This growth occurred primarily in the late 1980s and late 1990s. Since 2000, the total mileage has also increased, but to a lesser degree - only 5 percent. Travel distances increased, from an average of 28 kilometres per person per day in 1985 to 35 kilometres per person per day in 2008. The growth of mobility is virtually synonymous with an increase in car use. Over a long period of time (1960-2008), the number of kilometres travelled by car has especially increased in comparison to other transport modes (Figure 1). Car use has increased by 54 percent since 19851.

FIGURE 1 Development of passenger kilometres per transport mode, 1960-2008 (in billion passenger kilometres).

In 2008, approximately half of all trips were undertaken by car; 1 out of every 20 trips by public transport and one quarter of all trips by bicycle. These proportions in the use of various transport modes have remained relatively unchanged since 2000.

People undertake trips for various purposes: going to and from work, shopping, visiting family and friends, and pursuing various types of leisure activities are all reasons for travel. The distribution of passenger kilometres by travel purpose reveals two striking results (Figure 2). First, roughly half of all passenger kilometres are made for social-

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recreational purposes. Second, the growth in passenger kilometres is primarily due to the growth in commuting. In 1985, commuting accounted for ‘only’ 25 billion passenger kilometres. Some two decades later, this figure had doubled to 50 billion passenger kilometres in 2008. The increases in employment levels and the distances people travel from home to work and vice versa accounts for the increase of commuting in the total growth of passenger kilometres. The home to work distance increased from 12 kilometres (one-way trip) in 1985 to 17 kilometres in 2008. The average distance for commuting by car increased most significantly, from 15 kilometres in the mid-1980s to 22 kilometres in 2008 (+ 42 percent).

FIGURE 2 Distribution of passenger kilometres by purpose, population 12 years and older, 1985-2008.

The Netherlands Institute for Transport Policy Analysis (KiM) has developed a simple model that explains the growth of personal mobility over the period 1995-2008, using demographic, socio-cultural, economic and spatial factors based on the Dutch National Mobility Survey. Figure 3 shows the results of the model for the years 1985 to 2008.

From 1985 to 2008, car use increased by 54 percent. This increase is largely the effect of changes in behaviour among the Dutch population; in particular, the increase of travel distances and number of trips contribute to the total growth by 24 and 20 percent, respectively.

**Freight transportation: increasingly international and intercontinental**

Freight transportation increased by 21 percent between 2000 and 2008, or by an average rate of 2.4 percent per year. International freight transport rose more sharply (27 percent) than national freight transport (11 percent). International transport will continue to claim an increasingly larger share of all freight transportation. In 2008, international transport accounted for 66 percent of all freight transportation. In 2008, 41 percent of all freight transportation went by road, 3 percent by rail, 31 percent by sea, 18 percent by inland waterways, and 7 percent via pipelines.

In terms of freight tonnage, sea transport and road transport enjoyed the largest increases between 2000 and 2008. In percentage terms, however, freight transportation by rail enjoyed the highest growth rate (62 percent) during this period, and, although the volumes are still relatively small, freight transport by rail is clearly making a ‘comeback’ (see also table 1).

**TABLE 1: Freight tonnage**

<table>
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<tr>
<td>Year 2008</td>
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<tr>
<td><strong>FREIGHT TRANSPORT</strong></td>
</tr>
<tr>
<td>Continental (billion ton kilometres)</td>
</tr>
<tr>
<td>Road</td>
</tr>
<tr>
<td>Inland waterways</td>
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<tr>
<td>Rail</td>
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<td>Pipeline</td>
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<tr>
<td>Intercontinental (million tons)</td>
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<tr>
<td>Air</td>
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<td>Sea</td>
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Economic growth is the driving force behind increases in freight transportation. An increasingly larger portion of the Dutch economies dependent on the import and export of goods. The Dutch economy presently derives more of its income from the service sector than from the manufacturing sector, and this fact has a dampening effect on the growth of freight transportation. Moreover, the trend is to manufacture more expensive, higher quality products; consequently, financial turnover increases, but product volumes do not. Freight transportation and the aviation sector are
especially sensitive to economic fluctuations. Freight transportation could decrease by 2.5 percent to 3.5 percent in 2009, and by 0.3 percent in 2010. [Source: KiM, 2009, Mobiliteitsbalans 2009, Den Haag: Kennisinstituut voor Mobiliteitsbeleid]

2. Obstacles to the development of transport

Obviously, the economic crisis has also affected the development of transport in the Netherlands. From an economic point of view this means less business for the freight, forwarding and logistics sector, which forms an important economic pillar of the Dutch economy. On the other hand, it means also less traffic on the roads, less congestion and hence improved traffic flows, accessibility and robustness of the network (road, waterways, rail and air traffic).

Since the current administration has launched a major short-term investment programme for roads (national and regional), railways, regional public transport and waterways in 2008, the decrease in traffic volumes leave a little more room for all these projects to be carried out simultaneously without too much interruption for the daily traffic flows. The investment programme stems from the 'MobiliteitsAanpak' (Mobility Action Plan, 2008) and aims to widen the mobility choices for travellers and forwarders (goods) alike by strengthening the quality and capacity of each of the transport modes and improving the connections between them (inter modal transport) thus creating a more robust network which is ready to serve the public aims of the Netherlands in the future.

To ensure these and other infrastructure programs in the future can be implemented in a much shorter timeframe whilst paying respect to environmental concerns, spatial development etc. etc., new laws and guidelines have been adopted for infrastructure and spatial projects. This should enable to cut the whole project time from drawing board till realisation in half. A much more integrated approach (all modes, spatial development) and participation of interest groups at the early stage of the process are all part of this approach.

3. Good practices in the transport sector

On Safety:

- Tougher measures on use of children seats and seat belts in cars and coaches
- Implementation of an extra outside mirror for trucks (HGVs) to better notice vulnerable road users like pedestrians and cyclists when turning a corner (“dead corner” mirror)
- Testing of anti-accident systems and black box in trucks (HGVs): warning system sensitive for distance between vehicles, speed, unexpected movements etc. etc.
- Tightening of safety standards for HGVs (like tires, navigation)
- Implementation of ERTMS on new railway lines
- Stricter guidelines for working on/along railway lines, during night times, up to cessation of railway traffic
- Introduction of the ‘mobiele werkplaats’ on the railway lines: basically, a wagon shell with no bottom floor, thus offering a protected space for railway workers to work between the tracks (inside the car) without being hindered by passing trains on neighbouring tracks.
- Implementation of EU regulation on international transport security (maritime, aeronautical, road)
- Sector Agreement Schiphol (“Alders-tafel akkoord”): all interested parties relating to the future development of Schiphol airport participated at frequent round table meetings (chair mr Hans Alders) which led to a widely supported and accepted sector agreement on the sustainable development of Schiphol whilst at the same time reducing the noise, pollution and safety risks for nearby residents and companies.
On Efficiency:

- Sector Agreement Schiphol ("Alders-tafel akkoord"): all interested parties relating to the future development of Schiphol airport participated at frequent round table meetings (chair mr Hans Alders) which led to a widely supported and accepted sector agreement on the sustainable development of Schiphol whilst at the same time reducing the noise, pollution and safety risks for nearby residents and companies.
- Introduction of road pricing bill to Parliament. For details please see attached press release for bill Kilometre Charge.
- Wide set of measurements aimed at improving the efficiency of the nationwide road system under the umbrella of the 2008 Road Action Plan.
- Implementation/realization of 2008 Regional Public Transport Action Plan, worth 1 billion euros, including a wide set of measurements to improve travel times, capacity, tangential lines and comfort, in order to accommodate a growing number of public transport users.
- Implementation of ERTMS on new railway lines: Amsterdam – Utrecht, Betuweroute, HSL-Zuid
- 30 Urgent road projects which are vital for better traffic flow, improved safety, less congestion. These are relatively ‘small’ road projects like adding extra lanes, reconstruction of highway junctions etc. These projects have started in 2008 and 2009 en should yield results as from 2009.
- Subsidizing many initiatives and pilot projects focusing on mobility management, tele-commuting, flexible working hours, etc.
- Implementation of special ‘bike highways’ in the East and West of the country.

On Environmental performance:

- Sectoral Agreement for Sustainable Mobility, Logistics and Infrastructure. Major Dutch companies active in the field of mobility and the Netherlands' national government have signed a covenant, or sectoral agreement, which stipulates the road ahead to achieve the national reduction target of 13-17 Mtons (1990 levels) CO2. The agreement finds its roots in the national strategy for reduction of energy use (Clean and Efficient Programme) and runs until 2020. Amongst others, participating organisations are ANWB (Netherlands motorists association) RAI Association, KNV (Royal Netherlands Transportation association), BOVAG, NS (Netherlands' Railways), Schiphol Group, KLM (Royal Dutch Airlines) and the Port of Rotterdam. From the national government's side, the Ministers for Transport and Environment, as well as the vice-Minister for Finance have inked the agreement.
- Stimulation of production and use alternative/bio-fuels
- Innovation-program: “This is the car of the future”: government led program about the stimulation of sustainable car-development, including bio-fuels, hybrids and battery/electric cars. Amongst others, this has led to the installation of the Formula E-team: a sectoral wide program team that aims to facilitate market development and slash regulatory hurdles so that the Netherlands can become the pilot project for electrical cars.
- Sector Agreement Schiphol ("Alders-tafel akkoord"): all interested parties relating to the future development of Schiphol airport participated at frequent round table meetings (chair mr Hans Alders) which led to a widely supported and accepted sector agreement on the sustainable development of Schiphol whilst at the same time reducing the noise, pollution and safety risks for nearby residents and companies.
- A whole array of technical innovations to reduce noise levels at (rail)roads, like
innovative asphalt, tire pressure, honing and smoothing of flanges of trains.

- Sustainable purchasing of cars and other mobility needs etc by central government.
- Start of research project into the possibility of further efficiency improvements in the freight and logistics sector
- Changes to the fiscal regime for car users/owners and HGVs, so that it favours vehicles with relatively little environmental impact and punishes vehicles with a larger footprint.
- Subsidizing many initiatives and pilot projects focusing on mobility management.

4. Transport infrastructure investment

In 2008 the total sum of investment in infrastructure by all levels of government (central, provinces, municipalities and regional water authorities) amounted to approximately 10 billion euros. Of this 4 billion came directly from central government, which was almost entirely used for the building of new infrastructure (roads, railways, waterways, dikes). If maintenance costs are included, the central government figure is roughly doubled. In addition, central government provides annually 1 billion euros to lower governments for supporting regional public transport operations and local/regional infrastructure.

Between 2000 and 2008 the total sum of investment by all levels of government in roads, railways and waterways (excluding maintenance) has increased by almost 50% from nearly 7 billion to 10 billion euros. However, since also GDP has gone up, for many years the total share of transport infrastructure investment has remain largely constant at 1.7 percent of GDP.

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\begin{array}{cccccccccc}
6,72 & 7,677 & 8,354 & 8,353 & 8,145 & 8,578 & 8,689 & 9,163 & 10,186 \\
\end{array}
\]

Figures in billion euros. These investments are excluding maintenance.