

Summary

Mobility in the Netherlands continues to increase, although less sharply than in the 1980s and 1990s. From 2000 to 2007, the number of kilometres travelled by road and by rail rose 5 percent and 9 percent, respectively, while during the same time period, air travel grew much more rapidly at a rate of 21 percent. Similarly, freight transportation also grew by 21 percent from 2000 to 2008.

In recent years, time loss due to traffic jams and road congestion has remained relatively unchanged. Road safety, meanwhile, has generally improved, although it has not improved for cyclists. Meanwhile, air pollution resulting from road traffic decreased, owing to the use of cleaner, low-polluting cars. CO₂ emission levels fell for the first time since 2006, but only slightly.

Past experience has shown that we do not travel substantially less during times of economic crisis: home-to-work travel does decrease, but leisure time travel increases. During economic downturns, there are indeed fewer traffic jams and less congestion on the roads. Freight transportation and the airline industry are particularly sensitive to fluctuations in the economy. If economic forecasts prove correct, there will be fewer traffic jams on the roads in 2009 and 2010.

Mobility of the Dutch: not travelling more, but travelling longer distances

The mobility of the Dutch population has increased by 40 percent since 1985. This growth is not due to the fact that we travel more often, but rather that when we do travel, we travel longer average distances. In 1985, as in 2007, Dutch people made, on average, three trips per day; however, the number of kilometres travelled per person, per day rose from 28 km in 1985, to 35 km in 2007.

Of the total number of trips taken in the Netherlands in 2008, 50 percent were by car, 25 percent by bicycle, 17 percent on foot, and 5 percent by train, bus, tram and metro.

From 1985 to 2007, car use increased by 54 percent, owing to the following factors: population growth, an increase in the number of people employed, longer home-to-work travel distances, and more frequent pursuits of leisure activities located further away from home. Moreover, higher incomes and lower car use costs have led to increased rates of car ownership. Ownership of a second car is especially more

prevalent: one in every five Dutch households now owns more than one car.

Between 2000 and 2007, car use increased by 10 percent.

Train use has enjoyed especially strong growth, with the number of kilometres travelled by train more than doubling since 1985. Train use increased by 40 percent in 1991 alone, but this was primarily owing to the Dutch government's introduction of the public transport student travel pass, which allows students to travel for free on trains and other forms of public transport. Between 2000 and 2007, train use increased by a robust 9 percent, a growth spurt attributed to population growth, increased purchasing power, the public transport student travel pass, and the fact that trains more often ran on time. Traffic jams on the roads and rising fuel prices also contributed to increased train use; however, higher train ticket prices negatively affected train use. Between 2000 and 2007, bus, tram and metro use remained stable.

Growing economic prosperity is the primary factor behind the increase in air travel. The rise of the low-cost airlines - stemming from the European Union's market liberalisation policy - resulted in steep drops in airline ticket prices, and this has also contributed to increased air travel.

Other factors influencing people's desire to travel by plane include governmental policies (flight taxes, for example), oil prices, and incidents with global impact, such as 9/11 and the SARS outbreak.

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'.

Economic growth is the driving force behind increases in freight transportation. An increasingly larger portion of the Dutch economy is 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.

Stabilising the growth of time loss

From 2000 to 2008, time loss due to traffic jams and delays on highways increased by 55 percent. Traffic volumes, meanwhile, grew by 14 percent. Since mid-2006, however, both the time lost due to traffic jams and congestion, and the total traffic volume, have remained relatively unchanged.

The largest percentage of time loss (62 percent) is due to increases in the number of residents, jobs and cars, while a further 10 percent of time loss resulted from the following factors: lower taxation rates on home-to-work travel expenses, as implemented in the Dutch government's 2004 tax plan; speed limits and traffic speed controls; the weather; accidents and road works. Rising fuel prices reduced time loss by an additional 9 percent. Time loss was further reduced by 11 percent due to the construction of new roads, extra traffic lanes, and traffic management. Had these measures not been enacted, time loss would have increased by 66 percent.

Travel time reliability is important for road users. At issue, here, is the degree to which road users can predict travel times at certain times of day: the greater the divergence from the average travel time (including traffic jams), the lesser the degree of predictability. Over the years, the predictability of travel times during the morning rush hour has remained relatively constant. The divergence from the average travel time during off-peak hours and the evening rush hour has increased, however.

Road safety: more positive developments for car drivers than for cyclists

Despite the increase in mobility, road safety continues to improve. From 2000 to 2008, the number of road fatalities fell by 36 percent, to 750 deaths; however, the number of people involved in road accidents who subsequently required hospitalisation fell much less sharply, by only 2 percent, to 18,190 people in 2007.

In 2007, 53 percent of all road fatalities involved the most vulnerable group of road users: pedestrians, cyclists, and moped, scooter and motorcycle riders. Of all the road accidents requiring hospitalisation, 73 percent were among this group. The drop in the number of road fatalities was much less prevalent for cyclists and other vulnerable road users, than for passengers in cars. In recent years, the number of cyclists requiring hospitalisation following an accident increased, with approximately three-quarters of this total increase involving cyclists aged 40 and over, which most likely can be accounted for by the fact that this 40+ age group travels by bicycle more frequently than other age groups.

The increase in mobility from 2000 to 2008 led to a 6 percent increase in the number of road fatalities. However, to the contrary, various other measures, including infrastructural changes (30 and 60 km/h roads), information and educational campaigns, enforcement and automotive technology (for example, airbags and ABS), accounted for a 42 percent decrease.

Less air pollution

Traffic and transportation are the root cause of many of the Netherlands' environmental problems, specifically, air quality (due to emissions of pollutants and particulate matter), the greenhouse effect, and noise pollution.

In 2007, traffic and transportation accounted for the following: 19 percent of all greenhouse gas emissions (particularly CO₂); 27 percent of pollutant emissions (such as nitrogen); and 32 percent of particulate matter emissions. Moreover, nearly one-third of the population reported traffic noise disturbances.

The widespread use of fuel engine catalyts and diesel engines filters has made the air cleaner. Despite increased traffic volumes, emissions of pollutants and particulate matter have decreased. CO₂ emission levels fell for the first time since 2006, but only slightly. The positive effects stemming from the use of cleaner engines were negated, however, by the fact that consumers, on average, purchase larger cars. Noise pollution decreased around airports, owing to, among other factors, the banning of extremely loud aircraft. Over the past decade, increasing traffic volumes have offset the gains made in reducing traffic noise on and along highways through the use of various soundproofing methods, such as screens and quieter, sound-dampening asphalt.

Societal costs of traffic: accidents the costliest item

In 2008, the costs deriving from traffic jams and delays, road accidents, and the environmental damage caused by transport, were estimated at between 15 and 26 billion euro per year. Road accidents accounted for the largest share of this debt: between 10.4 and 13.6 billion euro. The environmental damage caused by traffic was estimated at between 2 and 8.5 billion euro. Traffic jams and delays cost between 2.8 and 3.6 billion euro. These costs rose by 7 percent in 2008, as compared to 2007 figures.

Economic crisis: fewer traffic jams

How economic crises affect mobility was illustrated during the second global oil crisis in 1979, the global economic downturn in 1993, and the bursting of the Internet bubble in 2002. These past experiences showed that economic crisis only minimally affects the total mobility. While car use for home-to-work travel and business purposes does indeed decrease, car use for pursuing leisure and educational activities increases. Nevertheless, there are indeed fewer traffic jams during times of economic crisis. Freight transportation and the aviation sector are especially sensitive to economic fluctuations.

Calculations based on recent estimates reveal the possible consequences the current economic crisis could have for traffic volumes and traffic jams in 2009 and 2010. In 2009, the traffic volumes on major road networks could fall by 0.5 percent to 2.5 percent, before slightly rising again by 0.5 percent in 2010. This could significantly reduce the number of traffic jams by as much as 8 percent to 15 percent in 2009, and again by another 3 percent in 2010. Freight transportation could decrease by 2.5 percent to 3.5 percent in 2009, and by 0.3 percent in 2010.