

Climate and

Transportation



Greenhouse gas emissions caused by road, air and ship transportation are increasing faster than emissions from other sectors. The transportation sector is the second largest "climate killer" in the EU.

At the same time there is no other sector for which emissions could be curbed more. Alternative solutions in the transport sector could have fast and dramatic climate mitigation impacts.

Transportation Destroys Climate

The European Union and the German government commend themselves for their extensive efforts aimed at preventing future climate change. Yet, careful inspection of emissions in the region indicates their mitigation activities are not as effective as they claim, largely because dramatic increases in greenhouse gas emissions from the transportation sector threaten to undermine their efforts.

- Between 1990 and 2000, total emissions of greenhouse gases (GHG) in the EU declined. This was primarily due to the closure of factories (deindustrialization) and modernization which occurred in East Germany and Central and Eastern European Countries post 1989/90.
- Official statistics report greenhouse gas emissions in the EU-27 (EU with 27 member states) declined by nearly 8 percent between 1990 and 2007. However, those numbers exclude international traffic (by air and sea); emissions only declined by around 6 percent when international air and sea traffic is taken into consideration.*
- Excluding the transportation sector, greenhouse gas emissions in the EU-27 region decreased by 13.4 percent during 1990-2007. During the same time period, greenhouse gas emissions in the transport sector increased by 33 percent! This growth happened at an alarmingly persistent rate.
- Within the transportation sector it is mainly air transport (plus 80%), ship transport (plus 40%) and road transport (plus 29%) that contributed to this enormous increase in greenhouse gas emissions.
- Emissions from railways, already low, were nearly halved during this time period. This occurred with a stable transport performance.

On the basis of the official prognosis it is expected that future developments in the transportation sector will lead to a dramatic increase in greenhouse gas emissions during the next 15 years. The largest contributors to this will be air, sea, and road transportation. The EU assumed that lorry and air transport will increase by 70 percent each until 2020. If current trends persist, the number of vehicles on the road will increase. Today there are 460 cars per 1000 inhabitants in the EU. In Germany it is currently 560 and in the USA 750 cars per 1000 inhabitants!

If the trends of the years 2000 to 2005 continue, it would result the following development:

Emissions of greenhouse gases in Europe will continue to increase, and the main cause for this will be transportation. Even if we assumed a cautiously optimistic development – in which emissions from the residential, agricultural, and industrial sectors decline – total emissions of greenhouse gases will increase because growth in emissions from the transportation sector will undercut reductions from other sectors.

This is in apparent contrast to the imperative stipulated by research on climate science: Greenhouse gases must be reduced fast and drastically, especially in industrialized countries, if an irreversible warming of the earth is to be avoided. Therefore an active reversal of transportation policies is necessary. Our transportation choices impact the climate world-wide. We are jointly responsible for the living and even survival conditions for billions of people.

*) The latest publications of the EU statistics do not account for air and ship traffic starting in the EU and going into non-EU countries. The respective note reads: "Excluding international bunkers".





Changes of greenhouse gas emissions in the EU-27 itemised for modes of transportation – 1990 to 2005 and trend until 2020

— air traffic — ship traffic — trucks/cars — Total emissions excluding the transport sector — railways

1990-2020 Greenhouse gas emissions in the EU-27 region, by modes of transport (millions of tons CO_2 equivalent)

	1990 mio. t	1995 mio. t	2000 mio. t	2005 mio. t	1990-2005 change in %	2020 trend ¹⁾ in mio. t	2005-2020 change in %
Total emissions of EU-27	5.797	5.443	5.345	5.465	-5,7 %	5.750	+5,2 %
EU-27 excluding transport sector	4.837	4.406	4.171	4.188	-13,4 %	4.200	+0,3 %
Transport total 1)	960	1.037	1.174	1.277	+33 %	1.550	+21,4 %
Thereof: trucks and cars	717	785	865	923	+29 %	1.100	+19,2 %
Air traffic ²⁾	84	101	136	151	+80 %	190	+25,8 %
Ship traffic ²⁾	133	131	154	185	+39 %	240	+29,7 %
Pipelines ³⁾	11	9	9	10	-9 %	12	+20,0 %
Railways	15	11	10	8	-47 %	8	0,0 %
Car density (cars per 1000 inhabitants)	345	381	427	459	+33%	600	+31 %

Source: EU Energy and Transport in Figures - Statistical Pocketbook 2007/2008.

Assumptions for predicted development 2005-2020: Car density increase EU-wide of 600 cars per 1000 inhabitants (In 2007 in the USA car density was 750 cars per 1000 inhabitants), increase of lorry traffic by 50% (officially as per EU: 70-100%), increase of air traffic by 50% (officially as per IATA: 75 – 100%); increase of ship traffic by 50% (official projections: 70%); increase of passenger-rail traffic by 30% and of rail freight transport by 50%. With all modes of transport it is assumed that the officially announced savings of fuel usage per hauling capacity (per person- or ton-kilometer) are being achieved.

2) including bunkering (tank fillings) for international transport; ship transport = inland and ocean shipping.

3) This sector also includes the emissions of ground activities on airports and at seaports.



Transportation that protects the climate

The best policy is the one that avoids traffic. The transportation sector equivalent to thermal insulation and efficient electric appliances is the promotion of an attractive neighbourhood to live and a regional economy. Half of passenger travel in motorized vehicles and an even larger fraction of freight transportation is avoidable – without any loss in quality of life or prosperity. People should not be constrained to unnecessary, often damaging mobility. It should be possible to access most destinations on foot, with a bike, or using public transit and railways. More climate-friendly modes of transportation include:

Designing dense and multi-use cities

Green cities without many cars avoid billions of person kilometres in recreational traffic and increase the guality of life.

Promotion of non-motorized transportation.

In Münster, 40 percent of all trips are made on foot or by bike. The German average is only 20 percent.

Expansion of local public transit for all.

In Zürich, the share of local public transit is all twice as high as in Stuttgart.

Focus more on railways | build a people's railway.

The average person in Switzerland travels three times more kilometres on trains than the average person in Germany – even though the country is a lot smaller. And: The great product line-up of the Swiss federal railways (SBB) is three times less expensive per train kilometre for the taxpayers compared to the subsidies that the German government grants to the poor product line-up of the railways.

New order of the transport (market).

Existing transportation infrastructure and policies favour those modes of transportations that are most harmful to the environment, the climate and the people. The transportation sector needs to be reorganized – by taxation of aviation fuel and by introducing a speed limit. Extensions / building of new roads and airports should be stopped and instead there should be more investment in railways. Who thinks that we cannot afford such a restructuration of transport? In fact, carrying on with business-asusual in the transportation sector is unaffordable. It will cost billions and destroy the environment for future generations.

Who thinks such a restructuration will cost jobs? In fact, current transport policy destroys hundreds of thousands of jobs at the European railways, public transport and small enterprises active in regional markets. In the car industry 500.000 jobs were eliminated between 2007 and 2009. Public investment in railway infrastructure and the restructuring of cities would create quality jobs for millions of people.

Who thinks there is no majority for such programs? In fact, a majority of people in Germany supports imposition of a speed limit¹ and public ownership of the railway². A referendum vote in Switzerland mandated transit of cargo goods be shipped by railways.

By the way: In 1970, residents in Western Germany and in France travelled just over half as many kilometres as today (7.000 instead of 12.500 km per year). This was in welfare societies with almost no unemployment with similar amounts of leisure time and holidays. What has changed?

Proximity has been destroyed. Distance ("for only 29 € to Nice") is being praised. Globalization and world trade are enforced without limits. The consequences are enormous costs for people and climate.

We could reduce greenhouse gas emissions in the transport sector in the medium term by one fifth, or greater than 1,000 million tons of CO_2 -equivalents. It is high time to do so in order to prevent that we have to live with drastic conditions of climate change. In the transportation sector, climate mitigation does not require sacrificing quality of life, rather it will improve it! That's why it is worth taking action now!

According to a Forsa poll of August 2007 it is 63%.
According to an Emnid poll of October 2008 it is 78%.

The Left. in the german Parlament (Deutschen Bundestag) Platz der Republik 1, 11011 Berlin Telefon: 030/227 511 70, Fax: 030/22 75 6128 E-Mail: fraktion@linksfraktion.de V.i.S.d.P. Ulrich Maurer, MdB www.linksfraktion.de Editorial staff: Sabine Leidig (Member of Parliament, Germany, spokeswoman for transportation policy of the party DIE LINKE/The Left), Winfried Wolf, Dominik Fette (scientific staff); Layout: Marco Heinig. Supported by the Members of Parliament, housing-, building- and transport policy: Heidrun Bluhm and Herbert Behrens; as well as environmental- and energy policy: Eva Bulling-Schröter and Ralph Lenkert.