



Environment & Climate Change

Environment Overview

These impacts apply equally to other types of transport infrastructure. Proper planning procedures enable roads and other transport authorities to assess the environmental impacts of proposals and to change them, or put in place measures to reduce adverse impacts. These issues must be considered all together, as thinking about them in isolation can be misleading. To take an example, planners often try to minimise the "land take" from a new road by only creating enough space for two lanes, with no dedicated space for pedestrians, carts and cyclists, leading to a worse environmental impact overall, as it reduces safety and accessibility.

Traffic and transport services (including private, public and informal transport) create further impacts on the environment, particularly on air quality, noise and human health and safety. Settlements close to major transport infrastructure can be particularly affected by noise, air pollution and in terms of safety. The health impacts of transport are discussed in more detail in the [health](#) section of the website.

There is considerable concern about the global environmental impact of transport - particularly on the level of carbon emissions and the consequential impact on climate change (or global warming). Within the EU there is currently debate about whether transport should be included within carbon trading. Fuel choice is the key issue and there has been extensive work done on the levels of emissions from different fuel types.

Typically road transport uses petroleum or diesel, however there is a growing market in the use of electric and natural gas vehicles, and also increased use of biofuels and considerable research is also going into the long-term applicability of hydrogen fuel cells. However, these alternative fuel sources also have an environmental cost - there is for example considerable debate about the impact of using habitats that may be deforested or switched from food production to grow biofuel crops. This has led some environmental commentators to argue that the issue of fuels is a diversion from the key issue of reducing overall use of powered transport.



Vehicles themselves and the manufacturing processes used to make vehicles are also an issue of environmental concern although the most significant energy use will be from fuel used to power the vehicle. The Society of Motor Manufacturer and Traders estimates that for a mid range car, used in the United Kingdom life cycle energy use and CO2 emissions can be allocated as follows:

- Manufacturing 10 per cent
- Use 85 per cent
- Disposal 5 per cent

Motor manufacturers have made considerable changes in the fuel efficiency of new vehicles, and in improving the efficiency of production with many now adopting the ISO 14000 family of environmental management standards. However, older vehicles and second-hand vehicles are frequently exported to developing countries so the effect of such improvements can lag considerably.

There can also be long-term impacts on soil and land quality. Transport activities can contaminate soil, water and air, through accidents involving dangerous goods and contamination from transport infrastructures, or by heavy metals from vehicle exhausts, de-icing substances, fuel spillages, and the release of fuels and other pollutants from road and rail vehicles, ships and aircraft.

For further information

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