

# The Transport Sector and Climate Change

## Introduction

The transport sector is responsible for a significant and growing share of greenhouse gas emissions, and most indications are that transport activity and emissions will double or more in the next 30 years.

On the other side, environmental imperatives and, increasingly, political objectives have set global emission reductions of the order of 50% by the middle of the century.

This illustrates that for the transport sector there is a growing gap between expectations and reality. In our analysis of the policies and measures that Countries are (and say they are!) implementing, emission reductions from full implementation would reduce the growth by a third. Thus, even in this scenario, emissions will grow by 70%.

The stark conclusion is that we do not have policies in place or planned that can stabilise, not to mind reduce, transport emissions -- even in the developed world.

So what can the sector do, given transport's multiple objectives and economic importance?

## Objectives /targets

A policy needs to have objectives. What should the aims of greenhouse gas policy for the transport sector be? On one level, we could say that transport should have the same targets as every other sector. On another level, if the reduction costs are higher in transport, it would not be economically justified for transport to reduce to the same extent as other sectors, since better value and bigger reductions could be had elsewhere. On the one hand, numerical targets are striking and good communication devices, and can be effective drivers for action as they are for reducing deaths on the roads. On the other hand, targets are difficult to define and may be uneconomic. There are also the questions of modal targets. Different modes have different levels and types of emission, and are growing at different rates in different places, so it is reasonable to talk of targets for modes?

**Question: What kinds of aims or objectives are needed for the transport sector?**

## Technology

Technological breakthroughs are possible but most experts believe that transport will still be mainly using oil, and vehicles, trains, planes and boats will still be more or less the same in 30 years.

Is this right? If it is, does it not imply that we should be concentrating more on improvements to present technology and less on hopes of dramatic technological breakthroughs? Some studies show that, for example, for passenger cars, improvements of up to 50% in fuel consumption are technically possible over the next 30 years. But it seems difficult to bring these cars to market, as changes in consumer behaviour and tastes are required. Can this be done? Is regulation the only way? Are there ways to encourage or support technological change in other modes?

**Question: How important is technology and what needs to be done to introduce best technology rapidly?**

## Transport Policy

Transport policy uses a range of tools to meet the multiple objectives of policy. These tools remain valid and the question is, how can they be adapted to contribute to climate change abatement? For some of the specific measures:

- Transport investment; how should policy adapt here? One concrete step is to include a price for carbon in investment appraisal; but would it change the results of any investment appraisals?
- Support alternatives to cars and trucks to get people and goods off the roads and on to rail or water. Can the measures here be strengthened? How and what greenhouse benefits can be expected?
- Integrated planning and logistics; there are high expectations for improvements in logistics practices and in making better use of the complementarities of different modes. How can this really be achieved?
- Urban travel; what can be done in cities to manage car traffic and encourage alternatives to the car?
- Road charging and pricing is an effective tool to manage road use efficiently and is going up the political agenda. Is road pricing going to become common or are there still many obstacles to its use?

**Question: Which instruments of transport policy have the greatest potential to make a contribution to climate change mitigation?**

### **Who is responsible?**

Decisions affecting transport are complex, involving several levels of government as well as different Ministries and private actors. Transport Ministers are often held to be responsible in the public eye for everything to do with transport. In reality, they have little say over many of the decisions that determine transport demand like where people live and firms locate. Ministers will need to continue to support the sector and underline its vital social and economic roles. But since they are also held responsible for the impacts, should they not be taking a more proactive role on Climate Change, leading with Ministerial colleagues on issues like fiscal policy and land use, working with private actors to reduce their emissions, and with local authorities to set a framework and find solutions at local level?