

Climate Change and Air Pollution

... they both relate to emissions of gases and other pollutants in to the atmosphere

BUT

impacts of air pollution are as dependent as much on how well its disperse as to the quantity and location of emissions, whilst emissions of greenhouse gases will lead to climate change wherever they are released.

AND

effects of air pollution are *mostly* felt locally and immediately, whilst the impacts of climate change are spatially and temporally dislocated.

There are significant interactions between air quality and climate change.

For example:

Over 90% of Air Quality Management Areas declared in the UK are a result of emissions from road transport.

Over 20% of carbon dioxide emissions in the UK are from road transport.

Management of these emissions for one form of pollution *may* but not *will* lead to benefits in terms of reductions of the other.

To improve urban air quality, traffic may be re-routed on a bypass around town. Whilst reducing air pollution concentrations in places where people are exposed to them, the longer distances travelled may result in a greater release of greenhouse gas emissions.

The use of bio-fuels to power road vehicles may reduce climate impact, but there may not be significant benefits in terms of key air pollutants such as nitrogen oxides and particles.

These types of measures are referred to as *trade-offs*, where positive decisions focussing on one issue are carried out at the expense of negative impacts in other areas.

AND LET US NOT FORGET ABOUT HEALTH!

Public health and the health of our ecosystems are central to the concerns we have about both air quality and climate change. However this is not obvious from the way they are managed. The Air Quality Management process that has been developed in the UK since 1995 is rooted in Defra (at a national level) and in the Environmental Health or Public Health Services departments of councils at a local level. The process has few links with either the Department of Health (other than setting the health-based standards) or the NHS through local Primary Care Trusts or Strategic Health Authorities.

Primary and Secondary Health Benefits

With air pollution there is the immediate and obvious link with health with respect to the pollutants that have on our bodies. However, particularly in the transport issue discussed above, the links go beyond this. For example, by the promotion of cycling and walking it should be possible not just to improve the air quality in our towns and cities and to improve health for all, but through increasing the exercise taken by individuals.

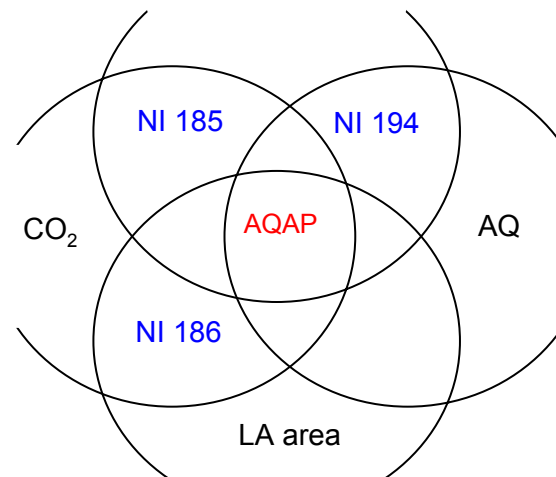
By increasing the cardio-vascular and respiratory fitness of individuals we don't just help to combat the problems of poor health and obesity, but as a secondary effect make them more resilient to the ill-effects of air pollution that we were concerned about in the first place.

But there is an alternative.....The win:win(:win)

Both the examples above demonstrate measures that tackle a single symptom of the underlying transport problem. The first seeks to re-locate pollution, the second doesn't attempt to reduce carbon emissions, it just tries to ensure that any carbon comes from a sustainable or renewable source.

By including wider health considerations into the assessment of transport actions the arguments become considerably stronger for implementing truly sustainable solutions rather than merely managing individual symptoms.

Local Area Agreement National Indicator in relation to Air Quality Action Plan as a Driver for Local Authority Action on Air Quality and Climate Change



As stated here, there are important reasons why public health needs to be more involved with efforts to improve air quality and combat climate change. The links may not be in place at a national level to ensure that these issues are properly linked. But at a local level there are key reasons why PCTs and Local Authorities should be working more closely and that is self-interest.

For example, both bodies should be promoting cycling and walking as key parts of their activities, yet there is little evidence in the air quality realm of widespread use of combined interest to try and effect significant changes in local transport arrangements. Now that climate change is on the agenda for both parties this forms a key shared interest that could develop into a strong working relationship for mutual benefit.

Local Authority National Indicators for Local Area Agreements provide an important starting point for Local Authorities in tackling climate change. As illustrated in the diagram on the left, the National Indicators bring together:

Local Authorities' interests and responsibilities in both Climate Change and Air Quality and their responsibility for their own activities and those of their entire local area.