



Health and fiscal co-benefits of emissions reductions: a summary for negotiators

Summary: Mitigating climate change presents unrivalled opportunities for improving health and welfare. Policies to reduce greenhouse gas emissions will bring about substantial reductions in heart disease, cancer, obesity, diabetes, road deaths and injuries, and air pollution. The health benefits arise because climate policy necessarily impacts on two of the most important determinants of health: human nutrition and human movement. Although the health co-benefits of climate change policies are increasingly recognized by health professionals they are not widely appreciated by those responsible for policy. Because the existence of important health co-benefits will dramatically reduce the cost to society of taking strong action to mitigate climate change, failure to appreciate their importance could have serious environmental consequences.

Independent scientific research recently published in the leading international medical journal *The Lancet* documents the multiple health effects of reducing fossil fuel energy use. Meeting emissions targets in the transport sector will require modest increases in walking and cycling with corresponding reductions in car use. Based on the current epidemiological evidence linking physical activity and health, it is estimated that the increase in physical activity would dramatically cut rates of chronic disease, with around 10% to 20% less heart disease and stroke, 12% to 18% less breast cancer and 8% less dementia. More sustainable transport would also improve our mental health with an estimated 6% less depression. It is important to note that the estimate for depression considered only the effects of increased physical activity and did not take into account the mental health benefits of more neighborhood greenness, less community severance, reduced fatness or less noise pollution.

The research also considered the health effects of reducing livestock production in order to limit the cattle related methane emissions and deforestation that are contributing to global warming. Reducing the amount of animal products in the diet would reduce our consumption of harmful saturated animal fats, which would result in a further large fall (a 30% reduction) in the incidence of chronic disease. By improving diet and physical activity levels, climate change mitigation policies would result in a dramatic cut in rates of diseases that mean premature death and disability for hundreds of millions of people around the world. Reducing meat consumption will also reduce rates of cancer of the colon and rectum. Colorectal cancer is the second most common cancer in men after lung cancer.

Eating less animal fat and taking more physical activity would of course reduce levels of population fatness. If present trends continue, by 2050, nine in ten adults in most developed countries will be overweight or obese. This will have major implications for human health and will put enormous financial pressures on health care services. Consuming less animal products will also reduce food prices because cattle are fed on grain and high meat consumption forces up world grain prices. Feeding grain to animals is an inefficient use of food energy in a world where millions of people go hungry.

Insulating homes in high income countries would prevent winter cold deaths and reduce greenhouse emissions. Fuel efficient cook stoves in low income countries would cut respiratory deaths in children. One million children die every year from respiratory infections caused or made worse by the burning of solid fuels. De-carbonizing energy supplies would reduce air pollution and deaths during coal extraction.

A decarbonisation program that cuts across all the major areas of fossil fuel energy use would bring major health benefits. Such a program would include the decarbonisation of energy supplies, increasing the energy efficiency of homes, the creation of an urban infrastructure for safe walking and cycling and the greening of our cities. No regrets policies to mitigate climate change will bring large health benefits.

References: Friel et al. 2009. Public health benefits of strategies to reduce greenhouse-gas emissions: food and agriculture. *Lancet*. Woodcock et al. Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *The Lancet*, 374, 1930-1943.