Climate Change and Health:
A platform for action

The core concern is succinctly stated: *climate change endangers health in fundamental ways* (Chan, 2008 WHO).

Evidence is accumulating on the impact of climate change. It will affect the places in which we live, our access to food and resources and our health.

This paper provides an introduction to the links between climate change and health and aims to inform policy-makers, politicians and the public of the benefits for health from reducing greenhouse gas (GHG)* emissions from food production, transport, energy, and waste. It also highlights the importance of action by the health sector.

It presents a platform for action which demonstrates that creating healthy sustainable places and communities can go hand in hand with reducing the negative impacts of climate change.

Policy agendas can and should be shared, and there should be a focus on ensuring that efforts to reduce the impact of climate change do not increase health inequalities.

Key facts

- The scientific evidence is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society (AAAS Board Statement on Climate Change).

- Over the past few years, severe floods, windstorms, heatwaves and cold spells in Europe have caused dramatic political, social, environmental and health consequences (WHO 2010).

- In Ireland, climate change may also be expected to impact adversely on health, resulting in increases in mortality from cardiovascular or respiratory diseases, particularly in people living in cities (ICCC).

- The incidence of food-borne disease may be expected to increase with higher temperatures, principally in summer time, in the absence of adequate food-hygiene practices (ICCC).

- In the Republic of Ireland agriculture is the single largest contributor to GHG emissions at 27.3% of the total, followed by energy (power generation and oil refining) at 21.8%, road transport at 21.1%, residential at 11.2% and waste at 1.6% (EPA 2010).

- In Northern Ireland GHG emissions from the energy sector (power stations) represent 22% of total emissions, agriculture 21%, road transport 22%, residential 16%, industrial combustion 5%, and waste 3.8% (AEA 2009).

- Older people, young children and people who live in areas susceptible to flooding will be more vulnerable to adverse effects of climate change.

* **Greenhouse gases** (GHG) are gases in an atmosphere that absorb and emit radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect. The main greenhouse gases in the Earth's atmosphere are water vapour, carbon dioxide, methane, nitrous oxide, and ozone.

Climate change and health: a shared agenda

Sustainable food

Research shows that the global population is growing as are demands for food production. In terms of global emissions, agriculture and changes in current land use such as deforestation are believed to be responsible for 25% of CO_2, 65% of methane and 90% of nitrous oxide emitted (NIEL 2009).

In Ireland, North and South, agriculture is an important part of the economy and way of life, but it also represents a large contribution to total GHG emissions. To meet UN targets by 2020 there will need to be significant improvements in reducing emissions from agricultural activities (EEA 2010).

The reduction of greenhouse gas emissions in the food and agriculture sector could also help prevent the burden of chronic disease. The 20th century change from largely plant-based diets to energy-dense diets high in fat and animal foods has played a key role in the upsurge of diet-related, preventable health problems such as heart disease, diabetes, some cancers and obesity (Lancet 2009).

Food production

- Emissions associated with food are dominated by the production phase and therefore although locally sourced food may have environmental and economic advantages it is the type of food we produce and consume which has a very significant impact on greenhouse emissions.
- The food production system is a complex interaction of global, national and local economic and environmental factors that can affect supply and demand. The policy levers which need to be considered include domestic food policy, agricultural policy food processing and waste policies.
- Local and national policies need to recognise the benefits of a more balanced diet, and endure a livestock production system which is good for the environment and good for our health.

Transport

Road transport makes up a significant amount of Ireland's total GHG emissions (21.1% Republic of Ireland, 22% Northern Ireland), largely due to freight and high use of private cars.

Significant reductions in GHG emissions through private car use may be achieved if motorists are encouraged and facilitated to switch from private motor vehicle use to more sustainable transport such as public transport, walking and cycling. As emissions per km are higher for short journeys, walking and cycling can provide significant benefit.

The co-benefits to health of more active travel are many, including: increased physical activity, which is one of the best ways to improve health overall, in particular reducing obesity; reductions in road traffic injuries; better air quality; lower levels of noise pollution and improved social interaction.

The shift towards a more sustainable transport system requires change in our environment and behaviour. Change at the environmental level to make sustainable travel choices available and attractive will require cooperation and coordination between regional and local development and transport planning. Freight transport is largely outside the scope of this briefing although changes in long distance transport of food may have a positive impact.

Health and Social Care sector

The health and social care sector is the largest employer on the island, forms a significant component of the economy and is the source of a substantial amount of carbon emissions. It has a special responsibility to lead by example in acting to mitigate climate change.

The health and social care sector can take specific action to:

- Monitor and display energy being used in health and social care facilities. This helps to increase carbon literacy and carbon numeracy of health and social care care workers and patients.
- Introduce measures to reduce the carbon footprint related to energy consumption for heating, lighting, hot water and ventilation.
- Promote low carbon transport like car sharing and parking spaces for bicycles.
- Insist that procurement policies across the vast range of goods and services that the sector purchases contain criteria relating to sustainability and low carbon emissions.
- Use the huge and highly respected workforce to raise awareness amongst and influence the public in supporting changes to reduce the impact of climate change.
- Provide meals which are good for health and sourced from a low carbon food chain.

Household energy
Household energy use makes up 16% of total GHG emissions in both the Republic of Ireland and Northern Ireland. Reducing this will require increased energy efficiency which may be achieved through a range of mechanisms including better insulation of homes; more widespread use of A-rated energy efficient appliances and; reducing waste by behavioural measures such as turning lights and appliances off when not in use and appropriate use of air conditioning. Co-benefits to health of greater energy efficiency, particularly through better insulation, can play a significant role in reducing negative health effects associated with fuel poverty, especially for more vulnerable groups including the elderly, lone parents and the unemployed.

Waste
Recycling has clear environmental, economic and social benefits. As well as cutting carbon emissions, recycling helps to preserve natural resources by reducing the need for new raw materials and uses less energy, so it can contribute significantly to a reduction in carbon emissions and the health consequences associated with climate change (Lyons et al. 2009).

Green Space
Green space and green infrastructure improve mental and physical health and have been shown to reduce health inequalities (Marmot Review 2010).

National / International Protocols
There are an array of international protocols which can give impetus to government departments in Northern Ireland and the Republic of Ireland to push towards reducing our carbon emissions to meet quantified economy-wide emissions targets by 2020. The most significant are:

- Copenhagen Accord (UNFCCC 2009)
- 'Setting the Table' - UK Sustainable Development Commission (2009)
- The Environmental Protection Agency & Climate Change (EPA 2010)
- UK Climate Projections (2009)
- The UK Climate Change Act (2008)
- Republic of Ireland's National Climate Change Strategy 2007-2012
- Sustainable Development Strategy for Northern Ireland (OFMDFM 2006)
- Kyoto Protocol (1997)
- Northern Ireland Programme for Government

Platform for Action

It is clear that there is no shortage of national and international protocols. The urgent need is for strong practical action to meet them.

IPH proposes ten steps to create a platform for action on Climate Change and Health based on the following areas:

- Encourage producers, processors and consumers to work together to develop guidelines for the production of sustainable food on the island of Ireland.

- Promote opportunities for active travel by increasing the use of public transport, electric cars, bike to work schemes, and cycle paths.

- Encourage the public to eat a healthy diet sourced from a low carbon food chain, and to reduce waste.

- Improve energy efficiency in houses, workplaces, schools and other settings to reduce the overall GHG emission from this sector and also reduce the effects of fuel poverty.

- Reduce the impact of emissions from waste by recycling and using eco-friendly products.

- Work to increase the access and availability of open green spaces.

- Strengthen health systems so they are in a better position to prepare for and respond to climate change.

- Encourage the health sector to work towards achieving a low carbon footprint by reducing energy consumption through smarter travel, better insulation of buildings, procuring food from sustainable sources and minimising waste.

- Build on the recommendations from the Intergovernmental Panel on Climate Change (IPCC) which calls for health impact assessment of all policies addressing climate change, emphasising particularly the impact on health equity.

- Urge government departments in Ireland, North and South, to work together towards the Copenhagen Accord which specifically states that 'enhanced action and international cooperation on adaptation is urgently required to ensure the implementation of the Convention'.

To strengthen our work in this area, we welcome your comments particularly on the proposed areas for action. Please send to:

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