

Manifesto



Our purpose

We, the founding members of the **COPENHAGEN CLIMATE COUNCIL**, have come together from backgrounds in business, government and science to help avert a potentially catastrophic change in climate. As leaders in our fields, we know that there is little time to act and that the responsibility for finding a solution lies firmly with us and our peers.

The climate problem is caused primarily by greenhouse gases which are emitted by the burning of fossil fuels. Being global in cause and effect, it has the capacity to disrupt the lives of every human on the planet. It is a problem without historical precedent.

Humanity has created this problem. To solve it will require new alliances across government, business and wider civil society – collaborations that can advance and enable a new global treaty. That treaty must honour the promise, already made by the nations of the world, to prevent dangerous climate change – which, sadly, is likely to be triggered if the full warming effect of a concentration of more than 450ppm of CO₂e (all greenhouse gas in our atmosphere) is felt. If strong action is not taken through an effective global treaty, that threshold may be reached in the coming decade or two.

Our great opportunity to avoid dangerous climate change will come at the Copenhagen UN Summit in December 2009, when the elements of the new global climate treaty must be agreed. It is through an effective global treaty that we will achieve genuine climate, energy, economic and physical security.

It is our purpose to do all in our power to work with and assist the participants in the Copenhagen UN Summit reach an effective agreement.

If we fail, the moment will have passed for ever. If we succeed, our future would be secured by a dynamic,

“The thickness of the Earth’s atmosphere, compared with the size of the Earth, is in about the same ratio as the thickness of a coat of shellac on a schoolroom globe is to the diameter of the globe.”

Carl Sagan, astronomer and astrobiologist

exciting and positive transformation of the global economy.

We call on people from all walks of life to join us to secure our common future. Leadership by business, science and the wider community must be harnessed to achieve an effective global treaty in Copenhagen.

Our Manifesto

Each year, climate research and analysis continues, computer modelling becomes more powerful and our measurements of warming and its impacts become more precise. The story of the link between human activities, observed global warming, likely future warming, and the climate effects of this warming, is becoming ever clearer: our Earth is now heating dangerously. That the primary cause is human-generated air pollution is beyond reasonable scientific doubt¹. The metabolism of our economy and society is on a collision course with the metabolism of Earth.

It is time for humanity to regard the global atmosphere as an essential, shared resource, the stability of which is directly affected by us. We must protect it. Human-induced emissions of carbon and other greenhouse gases that are creating this potentially catastrophic problem *can* be reduced. The time to act decisively to secure our future and that of generations to come, is now.

The science

The evidence that global warming is caused by greenhouse gas emissions is now overwhelming. We should all want the science of this problem to be wrong, however if the science is even *half* right, the consequences for our planet are likely to be disastrous, not in some distant future but in the coming decades.

If we allow the climate to warm above a certain threshold the severe effects on the global climate system will be increasingly dangerous. Some may be irreversible. The stock of carbon dioxide – the most significant greenhouse gas in the atmosphere – is now at a higher level than at any time in human history. And the level at which this stock is being added to continues to grow at an accelerating rate. The annual carbon dioxide concentration growth rate has been larger over the past decade (1.9ppm per year) than it has been since measurements began and the global atmospheric concentration of carbon dioxide has increased from a pre-industrial value of about 280ppm to over 380ppm now.

It is now widely acknowledged that avoiding the potentially catastrophic aspects of climate impacts will require limiting global warming to 2 degrees Celsius. In order to limit the risk of exceeding this threshold to 20% or less, the long-term concentration of CO₂ equivalent (CO₂e) must be no more than 450ppm. Allow the concentration to reach 550ppm, as it will in 30-40 years time if nothing is done, and disaster becomes all but inevitable.

Stabilising greenhouse gas concentrations at 450ppm is the great task of this generation. This is not a discretionary aspiration – it is a target we must achieve.

Climate does more than affect people directly. It affects all environmental and ecological processes. Left unchecked, these trends have the power to affect the basic elements of life – access to water, food pro-

duction, health and our environment, for every human on the planet.

That is why the COPENHAGEN CLIMATE COUNCIL believes a global goal of maximum 450ppm by 2050 must be agreed by global treaty.

We believe this goal can be achieved by both tackling emissions and developing new ways of sequestering carbon in forests and soils.

Among the trends already evident and which will accelerate if action is not taken, are:

- Rises in temperature affecting agriculture and making water more scarce in some areas, more plentiful in others leading to increased risk of flood.
- More extreme weather in the form of heatwaves, severe air pollution events and tropical storms, more floods and droughts causing crops failures and imposing immediate and significant costs: Australia is experiencing its worst drought on

“In the past, we didn't understand the effect of our actions. Unknowingly, we sowed the wind and now, literally, we are reaping the whirlwind. But we no longer have that excuse: now we do recognise the consequences of our behaviour. Now surely, we must act to reform it: individually and collectively; nationally and internationally – or we doom future generations to catastrophe.”

Sir David Attenborough

record, 2005 was the worst hurricane season ever in the US.

- A rising of the oceans up to 0.6m or more by 2100 and affecting many of the world's major cities and ports
- Mass animal and plant extinctions, and
- An increase in many human, plant and animal diseases.

Some will retain a level of doubt on global warming and climate change. Partly because of a scepticism about future predictions no matter how grounded in analysis and science, and partly because the implications of global warming and climate change are so frightening.

Members of the Copenhagen Climate Council believe

We believe that a clear and effective global treaty backed by strong, deliberate policy that recognises the need for common but differential application according to geographical and economic circumstances, can reduce emissions on the scale necessary to achieve climate stabilisation and economic growth.

We believe that the economies which developed during the first industrial revolution have a responsibility to lead on taking action to reduce greenhouse gas emissions. The prosperity of the developed world has been driven by high economic growth, burdening the atmosphere with around 200 gigatonnes of carbon. This is the founding element of the climate problem.

To invest in lower carbon technologies global business needs a clear message from our government leaders setting out clear long term goals and creating the legally binding frameworks to achieve the necessary emissions reductions with the speed required.

“Just as science and technology has given us the evidence to measure the danger of climate change, so it can help us find safety from it. The potential for innovation, for scientific discovery and hence, of course for business investment and growth, is enormous. With the right framework for action, the very act of solving it can unleash a new and benign commercial force to take the action forward, providing jobs, technology spin-offs and new business opportunities as well as protecting the world we live in.”

Former British Prime Minister, **Tony Blair**

We believe that business leadership is critical to achieving low carbon growth. The ingenuity of business to invent, develop and drive the practical means necessary to achieving the deep cuts in emissions that science is telling us must be achieved, will be paramount.

The task is hard but not impossible. We can do it.

The climate problem is unique. Global in both cause and effect, once the dynamics behind the problem reach a certain point our capacity to tackle it will have gone.

The major activities which are causing the greenhouse effect – the use of fossil fuels in the generation of energy (37.5%), transport (17.3%), industrial

processes (22.2%) and agriculture (7.8%)², provide the essential foundation of today's world economy. They go to the very heart of human development. It is these high emitting practices that must be replaced by new sustainable sources of energy, greater efficiency in the use of energy and more responsible land management.

Action by business will be critical to driving the innovation and generating the momentum required to achieve low carbon growth – we do not need to choose between averting climate change and promoting growth and development. We are confident that as new markets are created in low-carbon energy technologies and goods and services and the value of standing forests is given legal recognition, action on climate change will also create significant business opportunities. As reaffirmed by the Stern Review into the Economics of Climate Change, the benefits of taking action to limit global warming significantly outweigh the costs of reducing greenhouse gases. Delaying action will only increase economic costs and physical damage from climate change in the long run.

It is business leadership that will create the bridge between what the science is telling us must be done and what government policy can achieve. The global treaty must incentivise markets, finance and other levers necessary to achieve a low carbon economic transformation.

“It's no longer a zero-sum game -- things that are good for the environment are also good for business ... not because it is trendy or moral, but because it will accelerate growth”

Jeff Immelt, Chair and CEO of General Electric

We believe this is an opportunity within our grasp, that must not be missed, and by which we will be judged – either harshly or well, by future generations.

World efforts to date

In March 1994 the United Nations Framework Convention on Climate Change came into force with the stated objective “to achieve stabilization of greenhouse gas concentrations in the atmosphere at a low enough level to prevent dangerous anthropogenic interference with the climate system.”³

The failure of this framework was the absence of agreement on what the level of greenhouse gas concentrations needed to be to avoid dangerous climate change and on how this could be achieved. The treaty included provisions for updates (or “protocols”) that would set mandatory emission limits, the first of which is the Kyoto Protocol.

Tragically, the nations have failed to live up to their promise. The global treaty has failed to establish a process that will achieve the emissions reductions required.

The key principles of an effective global response

At Copenhagen the key elements of an international climate treaty must be agreed and include a global goal of achieving maximum 450ppm of greenhouse gases in the atmosphere by 2050. To be truly effective, it must be signed by all nations and satisfy the following criteria:

A) EMISSIONS TRADING

A clear timetable must be established for a global emissions trading system to promote cost-effective reductions in emissions and to stimulate low carbon investment. Although some countries may not be willing to be part of a global emissions trading

2 Synthesis of information relevant to the determination of the mitigation potential and to the identification of possible ranges of emission reduction objective of annex 1 Parties, UNFCCC July 2007

3 United Nations Framework Convention on Climate Change (1994)

system, developed economies must lead the way, with other countries becoming part of the system as soon as they are able. A carbon market driven by strict caps on the emissions of greenhouse gases from the developed countries, has the capacity to leverage significant investment into energy infrastructure in developing countries through building on mechanisms such as the Clean Development Mechanism under the Kyoto Protocol.

B) DEDICATED FUNDS FOR LOW CARBON INNOVATION

Global support for low carbon research and development should at least double, and support for the deployment of new low-carbon technologies should increase up to five-fold⁴. It is key that countries share best practice in achieving greater energy efficiency.

C) MEANS TO PROTECT FORESTS

Curbing deforestation and growing new forests, especially in the tropics, offers a way for the developed world to repay its historic carbon debt. It is imperative that the new global climate treaty achieves a means for tropical countries to grow economically while maintaining a positive carbon balance, in particular providing an economic value

for standing forests for carbon and ecosystem services. Credit allocation for avoiding de-forestation and taking early action now should be considered as a means to generate funding and incentives for the provision of sustainable jobs, education and healthcare.

D) THE PROMOTION OF SUSTAINABLE AGRICULTURE

The new treaty must recognize the role of agricultural sustainability in addressing climate change. While complex and requiring research, issues such as carbon sequestration in soils, and impacts on watersheds and the marine ecosystem must be investigated for their potential to contribute to climate stability.

E) SUPPORT FOR ADAPTATION

It is critical that the new global treaty focuses resources on protecting people from the effects of global warming and climate change. There is a level of warming already built in to the climate system which must be adapted to. The poorest countries are most vulnerable to climate change and development policy must be implemented by taking full account of the need to adapt to the climate problem.

F) INCENTIVES TO PROMOTE ENERGY EFFICIENCY

From the latest Intergovernmental Panel on Climate Change 4th Assessment Report⁵, and analysis done by McKinsey⁶, it is clear that improved energy efficiency can significantly slow emissions growth through employing existing technology. What is required now are the policy drivers to implement these efficiencies at scale.

Research and analysis is vital

To stimulate the low carbon transformation required to achieve 450ppm of greenhouse gases in the atmosphere, global leaders and business will need to focus

“The first essential element of climate change policy is carbon pricing...But the presence of a range of other market failures mean that carbon pricing alone is not sufficient Innovative technology policy and the removal of barriers to behavioural change are also critical.”

Sir Nicholas Stern, former Chief Economist of the World Bank and author of the Stern Review into the Economics of Climate Change

4 Stern Review into the Economics of Climate Change, ix

5 Working Group III Report (WGIII): Climate Change 2007: Mitigation of Climate Change Intergovernmental Panel on Climate Change, 2007

6 'A cost curve to greenhouse gas reduction', Per Anders Enkvist, Tomas Naucler and Jerker Rosander, The McKinsey Quarterly, Number 1, 2007

now on developing new low emissions technologies and processes that must become the norm.

To assist the deliberations in 2009 and to provide a solid basis for achieving an effective global climate treaty, the Copenhagen Climate Council will commission in-depth articles with leading thinkers within different fields and sectors. These articles will be addressing climate change from different perspectives but with a shared focus on the impacts, challenges, solutions and recommendations within each sector. The articles will present these visions around each of our key principles, focusing on:

A) ENERGY SUPPLY

Effective ways of generating, distributing and using energy must be developed and applied at scale. We must assess the relative merits and importance of different transportable and non transportable energy sources: cleaner coal, gas, nuclear, wind, solar, wave and tidal, geothermal and other sources of climate responsible energy. We also know there are enormous opportunities to achieve a slowing in the rate of emissions through increased energy efficiency. Levers to achieve these efficiency gains will be identified.

B) TRANSPORT

New ways of fueling cars and other forms of transport must be developed and applied at scale, including the most effective means to achieve more climate responsible transport systems including the use of hydrogen fuel cells, sustainable biofuels, and electric engines.

C) AGRICULTURE

Our lands must become repositories for carbon drawn from our atmosphere. Farming practices need to become more productive and sustainable. There are also significant opportunities for emissions reductions through the sequestration of carbon in agricultural soils; the efficient utilisation of

crop waste and understanding more ecologically complex interactions on farms. The potential of new char-based technologies, innovations in the combustion of biomass and cellulosic ethanol technologies will be assessed, as will the potential of biomass-based technologies as a whole.

D) PROMOTING AND PROTECTING NATURAL PROCESSES/ BIOLOGY

Tropical forests are an indispensable element in Earth's climate system. They not only hold large amounts of carbon, but through their transpiration create rainfall and actively cool Earth. About half of the mature tropical forests that once covered the planet have been felled. Achieving a positive carbon balance in the tropics, and ensuring biodiversity protection are paramount.

E) WATER RESOURCES

The interconnections between water, energy and climate are complex but essential to consider. Climate change will lead to dramatic changes in the hydrological cycle, both in terms of water availability and quality, and in terms of intensification of extreme events such as floods and droughts. New approaches and technologies need to be developed and adopted to adapt to these changes, within a framework of sound integrated water resources management.

We conclude

Humanity came into the 21st century with immense challenges but in reasonably good shape. Whether humanity survives this century richer and more capable is a prime responsibility of this generation.

If the international community acts with urgency to establish a global treaty by 2012 which is fit for the purpose of limiting global warming to 2°C, we, the members of the **COPENHAGEN CLIMATE COUNCIL**, believe that the task of achieving 450ppm of green-

house gases in the atmosphere is both technically feasible and economically affordable. It is a failure that is unaffordable – it could literally cost the Earth.

The UN Copenhagen Summit in December 2009 is a key moment for our future. It must be the driver of this critical transformation.

This is an international challenge requiring an international solution. Countries, businesses and individuals must act together.

Through engagement with the global business community and wider civil society, the **COPENHAGEN CLIMATE COUNCIL** is committed to a Summit outcome that honours the pledges made by previous generations.

Future generations are dependent upon us to safeguard the world they are born into. It is our responsibility and it is us who will be held to account. It falls upon us to make the difference.

Councillors at date

The Council will consist of approximately 30 leaders drawn from business, science and public policy.

Science and public policy

James Cameron, United Kingdom

Vice Chairman of Climate Change Capital

Tim Flannery, Australia

Writer and scientist

Lord Michael Jay, United Kingdom

Globe International Advisory Board member & Former Permanent Under-Secretary of State

Sir David King, United Kingdom

Scientist and Chief Scientific Adviser to the UK Government

Dr. Thomas Lovejoy, United States

Scientist and President of the H. John Heinz III Center for Science, Economics and the Environment

Professor James Lovelock, United Kingdom

Scientist, inventor, and author

Sir Crispin Tickell, United Kingdom

Director, Policy Foresight Programme at Oxford University.

Business

Paul Aquino, Philippines

CEO and President, PNOC-Energy Development Corporation (PNOC-EDC)

Carsten Bjerg, Denmark

CEO, Grundfos

Sir Richard Branson, United Kingdom

Founder and CEO of Virgin Group

Subhash Chandra, India

Chairman of Zee Entertainment Enterprises Limited

Jørgen Mads Clausen, Denmark

CEO, Danfoss

Anders Eldrup, Denmark

President, Dong Energy

Lise Kingo, Denmark

Executive Vice President, Novo Nordisk

Rob Morrison, Asia

CEO and Chairman of CLSA Asia-Pacific Markets

Rob Purves, Australia

Chair of Environment Business Australia and board member WWF International

Erik Rasmussen, Denmark

Editor-in-chief and CEO, Monday Morning

Björn Stigson, Sweden

President of the WBCSD, World Business Council for Sustainable Development

Moses Tsang, Hong Kong

Chairman and Managing Partner, Ajia Partners

Jens Ulltveit-Moe, Norway

CEO, Umoe AS

Li Xiaolin, China

Vice Chairman and CEO, China Power International Development

The Secretariat: Monday Morning

Monday Morning, the leading, independent think tank in Scandinavia, has founded the Copenhagen Climate Council in collaboration with a core group of business leaders and scientists. Monday Morning will host the secretariat and facilitate the ongoing work of the Council.

Monday Morning (www.mm.dk) was founded in 1989 and is based in Copenhagen. Its main objective is to enable decision-makers to successfully navigate in an increasingly fragmented and competitive global society. Monday Morning explores the most important news and trends, transforming these into strategic knowledge that gives clients a forceful and competitive edge.

Monday Morning publishes a weekly magazine in Denmark and Norway, numerous reports and papers, and facilitates a range of key networks for Scandinavian decision-makers.

