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Where government, industry and academia meet

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Profile



Where government, industry and academia meet

ANDREW PLUME

The 2009 Times/Smith School World Forum on Enterprise and the Environment, held at the University of Oxford in early July, brought together leaders in the policy-making, business and academic communities to address the issue of carbon emissions in a radically changed economic climate. Eminent speakers, including former US Vice President Al Gore, discussed the challenges ahead during the three-day forum hosted by the Smith School of Enterprise and the Environment.

Presidential commitment

Mohamed Nasheed, President of the Maldives, was one of two heads of state in attendance at the World Forum (the other was Paul Kagame, President of Rwanda). Nasheed explained that the people of his island nation would be among the first to suffer if decisive action is not taken on the climate crisis. With an average ground level of just 1.5 meters above sea level, the Maldives is the lowest country in the world. While Global Mean Sea Level (GMSL) has recently been rising at a rate of about 3mm per year, from 105mm in 1996 to 142mm in 2006 (1), this rise is not evenly distributed across the globe. Indeed, data suggest that the rate may be closer to 4mm per year in the Maldives over recent years (2).

John Church at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) says it is clear that sea levels are continuing to rise: “The Greenland Ice Sheet seems to be making an increasing contribution and there are indications of an increasing contribution from parts of the Antarctica Ice Sheet.” He adds that a major challenge is “whether we can

avoid crossing thresholds leading to a larger and more rapid contribution from the ice sheets – meeting this challenge requires urgent mitigation”.

Encouragingly, the global output of research articles focused on climate change-led sea level changes has recently outstripped the rise in the GMSL itself (see Figure 1). With so much at stake, the Maldives has recently committed to lead by example in the fight against climate change by pledging to be the world’s first carbon-neutral country within a decade.

A unique position

The World Forum was hosted by the Smith School of Enterprise and the Environment, founded in 2008 as a unique interdisciplinary hub where leading academics work with the private sector and government to meet the environmental challenges of our times.

As Dr John Hood, Vice-Chancellor of the University of Oxford, said in his introductory remarks to the World Forum: “All this was thanks to benefactor Martin Smith who realized we had a large number of scholars researching climate change in many different fields, but no interaction with business. This was the gap that the Smith School could fill. The School had the capacity to bring together private companies, academic institutions, governments and non-governmental organizations to meet the climate challenge. The location of the Smith School at Oxford University meant its research could be fully interdisciplinary.”

In this way, the Smith School embodies the concept of the Triple Helix of university-industry-government interactions. This model of innovation, developed by Henry Etzkowitz and Loet Leydesdorff in the 1990s, invokes a spiral of complex and dynamic interactions and knowledge flows between the three players but places the university as the leader in the creation of knowledge and economic development.

The school’s research fellows, visiting research fellows and faculty associates provide expertise in fields as diverse as engineering, physics, geography, economics, law and philosophy. Founding Director Sir David King, who served as the UK Government’s Chief Scientific Adviser and Head of the Government Office of Science from 2000 to 2007, told the World Forum that, “the Smith School is a global hub to facilitate governments, the private sector and academia to meet the climate challenge”. Sir David is the author of more than 400 articles since the 1960s that have collectively attracted more than 750 citations in 2008 alone (source: Scopus). A surface chemist, his work on catalysis on solid surfaces has paved the way for improvements in the efficiency of industrial processes and reductions in the cost of catalytic converters for cars.

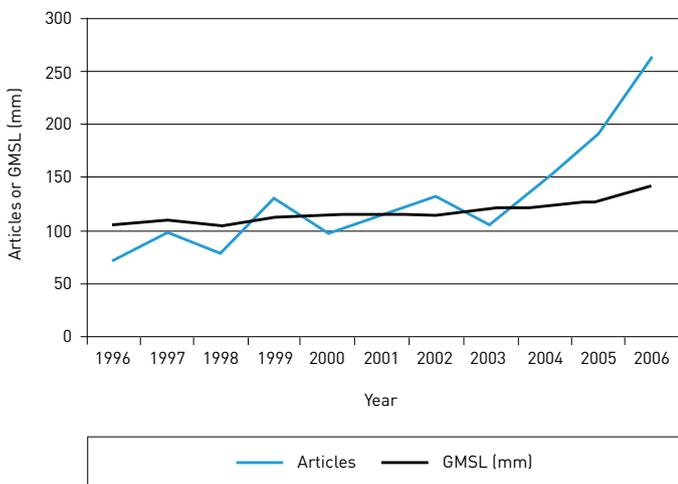


Figure 1 – Annual global output of articles on “sea level” and “climate change” and global mean sea level (mm) 1996–2006
Source: Scopus

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An inconvenient truth

Former US Vice President Al Gore, co-winner of the 2007 Nobel Peace Prize with the Intergovernmental Panel on Climate Change, gave the closing address to the World Forum. His remarks, while critical of the role that he felt government had so far neglected to play in the climate crisis, were also positive for our chances to avoid catastrophe: "I say we ought to approach this challenge with a sense of joy. What a privilege to have work so worthy of one's best efforts. A challenge so crucial to all future generations."

Gore, who brought climate change awareness to a mass audience with the 2006 documentary *An Inconvenient Truth*, noted that one way forward was continued advances in renewable energy science and technology. "I come away from that journey absolutely convinced that we have the tools available to us to solve three climate crises. We only have to solve one."

In his final remarks at the World Forum, Gore said of the future of climate change action: "It can happen. It will happen. We have everything we need, except political will – and political will is a renewable resource."

Sir David King added: "Uniquely, the first Smith School World Forum provided a venue for entrepreneurs, scientists and business leaders to seek and assess ways of defossilizing our economies. As the Copenhagen protocol develops, the World Forum will become the key annual event for leaders of governments, the private sector and academe to examine progress and the many innovative solutions to this unavoidable challenge."

References:

- [1] Church, J.A. and N.J. White (2006) "A 20th century acceleration in global sea-level rise", *Geophys. Res. Lett.*, 33, L01602. Updated [data](#).
- [2] Khan, T.M.A., Quadir, D.A., Murty, T.S., Kabir, A., Aktar, F. and Sarkar, M.A. (2002) "Relative sea level changes in Maldives and vulnerability of land due to abnormal coastal inundation", *Marine Geodesy*, 25, 133–143.

Four challenges

In his keynote speech, Lord Browne of Madingley set forth four challenges to be met if we are to tackle climate change. President of the Royal Academy of Engineering and former group chief executive of BP, Lord Browne noted direct effects on the pockets of consumers, with fuel bills expected to rise by 2–3% each year for the next two decades as emissions are reduced. Meanwhile, investment in ambitious sustainable energy projects must be stimulated and emissions trading schemes ("cap and trade") implemented to motivate investors. Opportunities and incentives must be made for business to pursue low carbon technology in their core activities. Finally, global governance must involve all stakeholders, since two thirds of potential emissions reductions could be achieved at half the cost in the developing world.