



REPORT
THE LUNAR SOCIETY DISCUSSION DINNER
8 JUNE 2006

with Professor Sir John Lawton, FRS
Chairman: Royal Commission on Environmental Pollution

Carbon Neutrality
&
the West Midlands City Region

compiled by Lunar Society members

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The 18th century Lunar Society brought together many of Britain's leading scientists and innovators. Centred on Birmingham, it started ideas which have had (and still have) significant effect on the development of both the city and the country as a whole. Science, industry, medicine and transport were influenced by its members who met to exchange information about experiments in the work-place, scientific discoveries and commercial opportunities.

The modern Lunar Society aims, like its illustrious 18th century predecessor, to play a leading part in the development of Birmingham and the wider region. The Society does not itself take positions, but provides a forum for its membership to influence change through *focusing* debate, *linking* social, economic, scientific and cultural thinking and *catalysing* action on issues critical to the future of the city and the region as a whole.

On 8 June, the Lunar Society held a Dinner on the issue of Climate Change. The discussion was led by Sir John Lawton, Chairman of the Royal Commission on Environmental Pollution. Attending the dinner with him were 33 leading people from business, academia, local government and regional agencies, including the Leaders or Chief Executives (or both) of seven of the eight local authorities forming the City Region initiative.

Although not a decision-making body, a strong consensus emerged that:

- The City Region is of a scale and significance to engage with climate change; compact enough for effective communication and large enough for collective regional impact and to carry national and international weight
- The City Region will seriously explore the implications of becoming carbon neutral by 2040
- Each authority and organisation represented will immediately seek opportunities for action already within their influence and remit

For its part, the Lunar Society will:

- Continue to provide a forum for well-informed discussion and debate, and to draw up a climate change Protocol
- With Sir John's help and advice and involving scientists from this region and beyond, to make available the latest knowledge and understanding on climate change and its effects, and of technologies for possible mitigation and adaptation
- Acknowledge exceptional achievement

Key conclusions of the discussion

To do nothing in the face of the scientific evidence of climate change is not an option. Effective action is well within our capacities, and significant advantages will accrue to those nations, cities and businesses that take the initiative rather than wait until forced by events.

This City Region has an opportunity to be at the forefront of tackling global climate change. It would be particularly fitting for us to take this on, as this area was the cradle of the Industrial Revolution and so one of the sources of the climate change problem. We also have the example Joseph Chamberlain to demonstrate just how effective locally-based action can be.

The major barriers to change are the need for political will and leadership. The City Region local authorities are well placed to take the lead and coordinate local action with national lobbying.

'Carbon neutrality' would offer a succinct and meaningful target for the City Region. It would be stretching but possible for the City Region to be carbon neutral sometime between 2030-40.



from Sir John Lawton, FRS

Sir John Lawton gave a succinct summary of the scientific evidence for climate change, and what can be done to mitigate its effects and adapt to its consequences, before leading a discussion. The key points he made during his talk and in his responses to questions and the discussion were:

- * Atmospheric CO₂ 280 ppm pre-Industrial Revolution, now 380 ppm and accelerating.
- * 550 ppm is the likely threshold of catastrophe (could be 500 or 450, no-one really knows).
- * Already know there will be 2-3°C rise by 2100 (5°C is the difference between Ice Age and now).
- * There is no single silver bullet but several existing technologies together could keep us below 400-450 ppm by 2040, eg:
 - ✓ electricity from renewables (eg wind, solar, biomass, nuclear, etc)
 - ✓ water gasification of coal (removing & sequestering CO₂)
 - ✓ greater energy efficiency (better insulation, more fuel-efficient engines)
- * Carbon trading can incentivise such changes by making the price of CO₂ emissions clearer.
- * Effective action is affordable (estimated cost about 0.5% global GDP).
- * Inaction would cost immeasurably more and threatens human life; it is not an option.
- * Bottom-up actions can work. Example: 12 years steady effort in Woking achieved almost 80% reduction in municipal emissions and 30% across the borough:
 - ➔ modest pump-priming funds, money saving actions, funds recycled, one step at a time
 - ➔ energy efficiency overhaul for municipal buildings; good housekeeping that is also ‘green’
 - ➔ solar-powered street-lamps & traffic lights — payback 5 years
 - ➔ householder grants for insulation
 - ➔ bio-diesel for the Council vehicle fleet
- * Huge potential economic benefit from green technologies; weak British presence reflects lack of national commitment necessary to create a home market.
- * National fiscal regimes are confused (eg VAT on refurb, not on new-build) *but* HMT at the highest level would like to see change; a City region declaring a commitment to be carbon neutral and saying what change is necessary to make this happen could make a significant difference.
- * The main barrier to change is political not technical: commitment and leadership are vital.
- * Some world cities (London, San Francisco, Beijing) are beginning to take up the cause.
- * Major states and cities in USA and China are beginning to change despite national counter-pressures.
- * The West Midlands City Region is of a scale and significance to make a real difference to national and international perceptions.

The participants in the discussion dinner were arranged in tables of 4 or 5 people. As well as participating in the general discussion led by Sir John Lawton, the discussion at each table was also monitored and conclusions recorded. There is thus a wealth of material from both general and table-based debate. What is striking in reviewing this material is the extent of complementarity and consensus that emerges. Only the key themes are picked out in the following summary.

National/international issues

There was a concern that efforts at City Region, or even national level, to reduce CO₂ emissions would be swamped by continuing growth from rapidly growing and industrialising nations like India and China. Against this, it was clear that all nations will increasingly suffer higher prices and increasing insecurity of supply of fossil fuels, and thus those nations able to reduce demand and increase efficiency would enjoy competitive advantages. Moreover, 'first movers' in these fields would pioneer and perfect technologies that will be in world-wide demand as other countries with less foresight strive to respond to their increasing energy problems. Carbon trading is a key mechanism for stable and consistent global pricing in a period of adjustment, providing the incentive for innovation.

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It is not an option."
Sir John Lawton*

Business issues

A critical component of the capacity of the national and regional economy to respond to the 'first mover' opportunity is development of a strong home market. This is a crucial area for collaboration between public and private sectors, in particular:

- Forward thinking regulation, anticipating in Britain market conditions that will be global in future
- Encouragement of manufacturers to exploit existing technologies
- Encouragement of innovators in 'green' sectors, through business support, tax breaks, venture funding, etc
- Purposeful use of the purchasing power of public authorities to spur suppliers to higher levels of energy efficiency, and to ensure sufficient volume

of low carbon technologies to bring prices down for all purchasers.

Business representatives present were supportive of the need to act on climate change, needing a context which did not place them at competitive disadvantage. The current Review of the Regional Economic Strategy should reflect these considerations.

Community and political issues

Increases in energy prices are likely in any case, but should be systematically linked to CO₂ emissions so that the price mechanism is effective. Where energy efficiency produces cash savings to users they will welcome it, but there will be resistance where it impacts on lifestyles (eg road pricing) or removes an accustomed concession (tax-free aircraft fuel). Changes in behaviour, whether brought about by higher prices, regulation or social pressure will be far-reaching and politically difficult to introduce. A vital aspect of securing acceptance will be communicating the necessity and feasibility of change, and demonstrating the positive aspects as well as the difficulties.

In this respect, communication with the younger generations is particularly important — both because they stand to be the main beneficiaries of effective action, and because they are key to persuading their parents. Restoring battered faith in the scientific community will be important to convincing people. They will need better information too about the real choices they face; good presentation as well as solid evidence will be necessary to deliver 'the Jamie Oliver effect'.

Local authority issues

Councils should focus on what they can do well in terms of reducing CO₂ emissions and build from there, giving a higher profile to this strand of their operations. Collaboration with business and with others on City Region and a wider regional basis will increase the leverage they can exert. Government could help by giving more space for local collaboration and decision-making ('fewer, larger targets'), and by making climate change performance a more prominent part of their assessments of local authorities.

Present at the discussion-dinner:

Councillor Keith Austin, Leader, Telford & Wrekin Borough Council
Brian Bailey, Acting Chief Executive, Wolverhampton City Council
Mike Beasley, Chair, Regional Skills Partnership
Diane Benussi, Chairman, Birmingham Forward
Jerry Blackett, Chief Executive-designate, Birmingham Chamber of Commerce & Industry
Jeremy Bruce, a director of Sustainability West Midlands and former West Midlands Director of Groundwork (representing Bernard Doyle)
Amanda Cadman, Administrator, the Lunar Society
Hon. Alderman John Charlton, Chairman, UHB NHS Foundation Trust; Chairman, the Lunar Society
Kate Cooper, management consultant; Lunar Society Climate Change Group
David Cragg, Regional Director, Learning and Skills Council
Sir John Egan, Chairman, Severn Trent Water Ltd
Michael Frater, Chief Executive, Telford & Wrekin Borough Council
Tim Gebbels, Director, West Midlands Regional Observatory
Deborah de Haes, Partner Gatenby Sanderson; Lunar Society Climate Change Group
Philippa Holland, Director for South Eastern Division & Regional Director for Local Government, Government Office for the West Midlands
Nick King, Regional Strategy Manager for the Midlands Region, The Environment Agency (representing Barbara Young)
Professor Sir John Lawton CBE FRS, Chairman, Royal Commission on Environmental Pollution
Stella Manzie, Chief Executive, Coventry City Council
Jamie Morris, Deputy Chief Executive, Walsall Metropolitan Borough Council
Dr Simon Murphy, City Region Project Director
Professor Michael Overduin, Institute of Cancer Studies, University of Birmingham
Professor Judith Petts, Head of School of Geography, Earth and Environmental Studies, University of Birmingham
Andrew Poole, Partner Martineau Johnson solicitors (representing Andrew Whitehead)
Sue Prince, Board member, Advantage West Midlands
David Pywell, Strategic Director of Development, Birmingham City Council (representing Stephen Hughes)
Councillor Ted Richards, Leader, Solihull Metropolitan Borough Council
Peter Shirley MBE, a founding member and former Chair of the Urban Wildlife Trust; recently retired Regional Director of the Wildlife Trusts; member of the West Midlands Regional Assembly
Councillor Ken Taylor, Leader, Coventry City Council
Councillor Bill Thomas, Leader, Sandwell Metropolitan Borough Council
Councillor Paul Tilsley, Deputy Leader, Birmingham City Council (representing Councillor Mike Whitby)
Sandy Taylor, Strategic Regional Advisor, Birmingham City Council; Lunar Society Climate Change Group
Brian Woods-Scawen, executive Chairman, Pricewaterhouse-Coopers West Midlands; Board member, Advantage West Midlands; member of Councils of Birmingham Chamber of Commerce and West Midlands CBI
Alan Wenban-Smith, consultant in urban and regional economic development; Lunar Society Climate Change Group
Dr John Wormald, founding partner of autoPOLIS, providing strategic analysis and advice to the global automotive industry