

# **Environmental Issues:** The Response of Industry and Public Authorities

Glasgow, Scotland November 1991

> Contents Participants Introduction

# Contents

|   | Preface  |    |
|---|--|----|
|   | D.K. Adams   |    |
|   | Introduction   | 9  |
|   | Roger Levett   |    |
| 1 | The Global Environment and Economic Choice<br><b>Rob Gray with</b> K.J. Bebbington     | 21 |
| 2 | Green Planning in Canada<br>Glen <i>Tone</i> r   | 36 |
| 3 | Problems of Environmental Policy Implementation<br>I The Response of a Local Authority | 51 |
|   | Mark Lazarowicz<br>II The Challenge Ahead<br>Gary Posen                                | 57 |
| 4 | The Response of Industry to Environmental Concern                                      |    |
|   | I Examples from the United Kingdom<br>(i) A British Retailer<br>Ian Coull              | 72 |
|   | (ii) A British Industry<br>Cameron McLatchie   | 78 |
|   | II Examples from Canada<br>(i) An Alcan Perspective                                    | 86 |
|   | Raymond Brouzes (ii) Current Environmental Management                                  |    |
|   | Agenda – a need for focus<br>Michael Robertson   | 93 |

| 5 Continental Frameworks                          |     |
|---|-----|
| I The European Context                            | 103 |
| David Wilkinson                                   |     |
| II The Great Lakes Water Quality Agreement:       |     |
| Reconciling Political Systems with the Ecosystem  | 109 |
| Ian Jackson                                       |     |
| 6 Public Perceptions                              |     |
| I A View from the United Kingdom                  | 128 |
| Greg Neale  |     |
| II Public Opinion in Canada                       | 143 |
| Barry Watson                                      |     |
| Appendix: British and Canadian Delegations to the |     |
| Canada-UK Colloquium, Glasgow, November 199 1     | 169 |

# Appendix

British and Canadian Delegations to the Canada-UK Colloquium, Glasgow, November **199**1

#### **BRITISH PARTICIPANTS**

#### **Professor David Adams**

Chair, British Committee of Canada-UK Colloquium Professor of American Studies, Keele University

#### **Mr Geoffrey Bacon**

Executive Director, Canada-UK Chamber of Commerce Hon. Treasurer of British Committee, Canada-UK Colloquium

#### Mr Tony Brenton

Head of Energy and Environment Department Foreign and Commonwealth Office, London

#### Mr Tom Burke

Adviser to the Secretary of State for the Environment, London

#### Dr Brian Clarke

Director, Centre for Environmental Management and Planning, Aberdeen University

Mr Ian Coull Development Director, J Sainsbury Plc

# \_\_\_\_

Mr Bruce Dinwiddy Deputy British High Commissioner Designate, Ottawa

#### His Excellency Mr. Brian Fall C.M.G. British High Commissioner, Ottawa

Dame Janet Fookes MP Colloquium Chair

Professor Rob Gray University of Dundee Dr Keith Hampson MP

Mr Allan Hird Executive Secretary, British Committee of Canada-UK Colloquium

Mr Mark Lazarowicz Leader of Edinburgh Council

Mr Roger Levett Energy and Environment Group, Scottish Enterprise

### Mr Cameron McLatchie

Chairman, British Polythene Industries, Board Member Scottish Enterprise

Mr Richard Morris

Head of Energy and Environment Group, Scottish Enterprise

# Mr Greg Neale

Environment Correspondent, Sunday Telegraph

#### **Mr Robin Simpson**

Head, Environment Unit, Departmem of Trade and Industry, London

### **Dr Margaret Storrie**

University of London, Founder Chair, British Committee of the Canada-UK Colloquium

## Mr Mark Turner

Canada Desk Officer, Foreign and CommonwealthOffice, London

#### **Mr David Wilkinson**

Institute for European Environment Policy, London

170

Appendix

### CANADIAN PARTICIPANTS

# Mr Gary Posen

Deputy Minister of the Environment, Government of Ontario

Mr Torn **Boehm** Minister, Canadian High Commission, London

Dr Ray Brouzes

Director, Environmental Affairs, Alcan Aluminium Limited

Mr Julian Carroll

Lawson Mardon Group

# Mr Charles Court

Western Europe Relations Division, Department of External Affairs and Trade, Ottawa

# Mr Peter Dobell

Vice President, Institute for Research on Public Policy, Ottawa

# His Excellency Mr Freclrik S. Eaton

High Commissioner for Canada, Canadian High Commission, London

# Mr Murray Elston, MP

Interim Leader of Official (Liberal) Opposition in the Ontario Legislature

Mr Brian Emmett

Director General of Planning, Department of Environment, Government of Ontario

Ms Vivien Hughes

Canadian High Commission, London

# Mr Ian Jackson

Institute for Research on Public Policy, Ottawa

# Mr Duncan McKichan

Hon. Canadian Consul, Glasgow

Mr Jean Piette

Ex International Director for the Department of the Environment, Government of Quebec, Environment lawyer

# Mr Murray Rankin

Head of Department of Law (Environment Law), University of Victoria

Mr Michael Robertson

Senior Director, Environmental Health & Safety, Petro-Canada

# Mr Robert Skelly MP

New Democratic Party, Comox-Alberni, BE

# Dr Glen Toner

Associate Professor, Department of Political Science and Graduate School of Public Administration, Carleton University, Ottawa

## Mr Barry Watson

Vice-President, Environics Research Group Limited, Toronto

# Introduction

Roger Levett

The number and complexity of the issues discussed in the days of intensive discussion make the task of the Rapporteur the more difficult. The introduction is therefore in two parts. The first pulls out and explores some of the issues which ran through all the discussions, or in some cases were lurking just below the surface. The second part consists of an inevitably sketchy and subjective summary of some of the key points covered in each of the five sessions of the Colloquium. Together they provide some overall orientation and some detailed signposting to very thought-provoking papers.

### PART 1 - KEY ISSUES IN THE DISCUSSIONS

#### Sustainability, the unavoidable aim

'Sustainability is about treating the world as if we want it to stay'. This must be the most important aim of environmental policy. The discussion focused firmly on the 'hard' issues of resource depletion, climate change, waste management, pollution and ecosystems on which the future of life on the planet depends, rather than perceptual and subjective environmental issues such as scenery and heritage.

The idea that the planet imposes physical limits on human economic activity has been around for some time. Expressed as the 'limits to growth' argument of the Club of Rome, it was too bleak and uncompromising, too incompatible with received ideas, to secure mainstream political acceptance. Only when reformulated in the mid '80s as 'sustainable development' did the idea begin to have impact.

This concept has been able to enter and influence mainstream political debate very rapidly because it can be interpreted by many different groups in ways that fit their own preconceptions and further their own goals. But this 'constructive ambiguity' has a downside too. The lack of one fixed meaning allows political and business interests to hijack the term. There is a danger it will take on so many watered-down, interest-serving and mutually inconsistent meanings as to become an empty 'motherhood' catchphrase. We were warned that because of its pliability 'sustainable development' has been adopted as a slogan far too glibly and hastily, and without proper understanding of its significance.

However this also can be seen positively. The phrase can be seen as a Trojan horse, or as a kind of levering tool, that once firmly planted in the discourse of people who do not understand it or choose to misunderstand it, can be ratcheted along to force changes in their perceptions and behaviour.

This metaphor came up several times, notably in the discussion of national green plans and the accord on water quality in the Great Lakes. It is related to Kuhn's model of paradigm change, which most speakers appeared to be applying. On this model, the greening of politics is not an incremental refinement and adjustment within established 'rules of the game', but a jump moulded by psychological forces outside the old system rather than rational discourse within it. One byproduct is that words take on new meaning as the change happens, like a perceptually ambiguous drawing flipping between two different interpretations as you look at it.

Views differed on how radically society would have to change to become sustainable. **Rob Gray** pointed out that all 'developed' economic activity is based on drawing down and dissipating natural capital rather than preserving it. He estimated that on the natural resource balance sheet which must replace the purely financial ones in current use, no company in the developed world has 'made a profit' since 1945. If so, the structural change needed to make Western industry *environmentally* sustainable will be more draconian and traumatic than what East European industry is going through to make it **economical** viable as currently understood.

It was suggested that with the right institutional structures there are enough resources to support even the present rapidly expanding global human population – although not at the levels of waste currently taken for granted in the West. But it was agreed that we do not yet know enough to answer this question. We are in the paradoxical and uncomfortable position of being sure that sustainability is necessary and unavoidable, but without having even mapped out the research we need to tell us what it really means. Truly a 'journey to an unknown destination'.

#### **Economics and environmentalism**

Environmental concerns are becoming, like economics and finance, factors which influence and constrain decision-taking in all subject areas throughout government.

This has given environmental ministries a clear focus for their own

Introduction

activities, a coherent agenda for influencing policy in other areas, and increasing prestige, all of which they have tended previously to lack. This process could continue in any of three ways. First, the environment ministry could increasingly become a 'Ministry of Everything' with ever-increasing responsibilities and a licence to interfere everywhere like a finance ministry. Second, other ministries such as transport and energy can take responsibility for the environmental aspects of their own portfolios, resulting in a general 'greening' of policy in which the environment department does not necessarily have a leading role.

Third, existing central departments, such as the Treasury, could take charge of the environmental agenda as a new aspect of central policy evaluation and coordination. This prospect alarms most environmentalists since central economic departments are, on both sides of the Atlantic, a chief obstacle to the greening of policy. This problem is only likely to be resolved by a major change in the traditional economic paradigm of prosperity, growth and success employed by the central departments. Economic departments will not be fit to take over environmental policy until environmental philosophy has taken over the economic departments.

#### **Economic frameworks**

The difficulty facing western economies – and underlying much of the discussion – is that what is economically profitable, viable or rational only partially and accidentally coincides with what is sustainable and resource efficient. We are living in one paradigm of economic behaviour and resource use, but beginning to realise that sustainability dictates a very different one, where terms such as 'profit', 'capital', 'efficiency', 'success', 'wealth and even 'rationality' take on new meanings. The transition is not made any easier by the unprecedented success that the old paradigm has had both in creating material prosperity and in convincing us that this is what matters most.

The current paradigm is characterised by conventional economics, with its disregard of 'externalities', positivist treatment of 'value' as created purely by market circumstances. It can be thought of as a 'big bang' model: individual human preference for benefits sooner rather than later is elevated to a structural principle, which places diminishing weight on costs and benefits the further into the future they are, and sanctions gross inefficiency of overall employment of resources provided the benefits come early and the costs late. Its slogan could be 'get rich quick, for tomorrow we die'.

A framework for sustainability would in contrast be based on a 'steady state' economics, centred on preserving the planet's stock of 'natural

capital'. Its slogan could be Mr Micawber's 'Income twenty pounds, expenditure nineteen and six, result happiness. Income twenty pounds, expenditure twenty nought and six, result misery'.

It would place environmental externalities at the centre of calculations of value, and optimise resource use over the whole life of an asset or activity rather than maximising short term gain. It is the framework which, whether consciously or not, governed the nineteenth century approach: build as solidly as possible because it will save money in the long run.

# Three issues in pragmatic economic management for sustainability

A theoretical debate exists over how values can be assigned – let alone applied – to environmental costs and benefits. Leaving this aside, there are pragmatic moves which could help bring economic frameworks better into line with environmental imperatives.

First, western governments including those of Canada and the UK concentrate taxation, both direct and indirect, on labour. This makes employers replace labour by automation, and higher resource use, to increase competitiveness. This is silly now that a surplus of labour – that is, unemployment – is a major political problem while overuse of another factor, raw materials (and production of waste, which can be seen as a 'negative' raw material) is the basic problem of unsustain-ability. We should shift taxation off labour and onto raw materials (including energy) to encourage substitution of raw materials by labour – for example by making more recycling viable by increasing the value of secondary materials relative to the cost of the labour in collecting them. Carbon taxation, and compensatory reductions in income and value added taxation, are the obvious first step.

Second, public-sector investment appraisal should seek to optimise lifetime resource costs. Future cost and benefit streams should only be discounted to reflect genuine uncertainty, not as an unthinking routine.

Third, indices of wealth such as GNP need to be refined to reflect human welfare rather than just level of economic activity. In the developed world, increasing proportions of expenditure do not add to welfare but merely cope with problems, such as car use, that are themselves often caused by increasing prosperity. In the third world, conventionally measured increases in 'wealth' often merely reflect the replacement of traditional non-cash patterns of life by exploitative cash economies offering inferior living standards, health, security and autonomy.

# The private cost I public good problem

Companies will not voluntarily take environmental protection measures if doing so puts them at a competitive disadvantage compared to other companies, either locally or far away, which are not taking the same measures. Few individuals will make serious sacrifices in their own ways of life to protect the environment while others remain free to enjoy relative advantage through environmentally damaging behaviour. Many Canadians will now contemplate buying a smaller, more fuel efficient car – a change entailing only a marginal drop in living standards, and incidentally saving money – but very few will voluntarily give up using a car and rely entirely on public transport.

This problem of public goods requiring private costs is neither new nor restricted to environmental policy, and the solution is well known: it is for government to make everybody adopt the standards or behaviours that are costly to each individual but accepted by the majority as necessary for the common good.

There is evidence from both the UK and Canada that, as Mark Lazarowicz put it with particular reference to cars: 'People are becoming more willing to be forced by Government to change their behaviour'. Government intervention to set a common framework of responsible behaviour is an indispensable complement to individual responsibility. There is nothing paradoxical or mysterious about an individual both *exercising* a freedom and *voting* for its abolition.

This seemingly simple point needs to be laboured because the UK Government seems wilfully to disregard it. For example, the business community, the supposed advocate and beneficiary of laissez-faire, has recently through the Government's own Advisory Committee on Business and the Environment issued strong calls for carbon taxation and regulatory intervention to encourage recycling. The Confederation of British Industry has called for heavy investment in public transport infrastructure. But Government continues to resists all these things.

# Partnership between government, industry and environmental groups

If sustainability dominated the 'problems' side of the discussions, parmership dominated the 'solutions'. Environmental problems and solutions are complex, and affect different groups in society in ways that the simplistic slogans of much political and media discourse fail to reflect. For example, the effects of restricting car use in cities cannot be adequately discussed in terms of the one-dimensional rhetoric of 'personal freedom' or 'market choice'.

#### Environmental Issues

More participatory and consensual ways to take decisions are needed, with informed and active participation from a much wider range of people and organisations than with a narrowly defined legal or financial 'interest'. The term 'stakeholders', common in Canada, would be a great addition to the vocabulary of UK policy debate, to carry the idea that everyone has a 'stake' in the effects of environmental policy and should be able to have a voice in creating it. Such a broadening of involvement would be more in keeping with the spirit of 'citizenship' than its narrowing, through the UK 'Citizens' Charter', into merely a licence for cantankerous consumer complaint.

An authoritarian and secretive government culture will find it far harder to persuade all 'stakeholders' to 'buy in' to the changes required by global environmental concerns than one where information is free and policy discussions public and participatory unless there are good reasons to the contrary. It is not accidental that campaigns for the environment and for freedom of information are closely linked.

New fora for dialogue are being developed in Canada, as described by both Gary Posen and Glen Toner in their workshops at Dundee. Environmentalists have initially found it difficult and uncomfortable to treat industrialists as partners in search of solutions, rather than convenient enemies to blame problems on, and vice versa. The people involved have had to work hard to sell the partnership idea to their own organisations, which are often suspicious. But such methods are starting to bear fruit, for example in an action plan endorsed by both sides to tackle what were previously confrontational issues such as polluting emissions.

Government has not always matched the flexibility shown by both industry and the green lobby. Partnership fora will only retain credibility if Government now helps implement the agreements brokered by them. For example the UK's national Recycling Advisory Panel was discredited when Government failed to take account of recommendations worked out between industry, environmentalists and public agencies in its White Paper. Its successor Advisory Groups deliberately avoid partnership by separating these three sectors. A group of concerned agencies is now trying to resurrect the partnership approach by creating a broadly representative National Recycling Forum.

Business in the Community successfully brings industry and environmental groups together, but more for practical conservation projects than to influence business behaviour. At local level, a pilot INCA (Industry and Nature Conservation Association), bringing together chemical industry representatives and campaigning groups, has been successful both in catalysing conservation project work and in modifying company attitudes to polluting emissions and cleanup investments. A more ambitious partnership of the same kind is being brokered by Scottish Enterprise, and a church-based group, Kairos, is setting up a Scottish Environmental Forum to articulate public and corporate responsibility.

Some environmental groups such as Earth First and Greenpeace will refuse to be drawn into partnerships for fear of becoming compromised and losing independence and credibility. The Peruvian environmentalist Francisco Sagasti argues that these should be seen as one end of a continuum, along with ideas and proposals flow, torganisations which are increasingly compromised but in return increasingly well connected with the establishment and therefore able to influence it to implement those ideas. The clear moral vision to generate new values and directions, and the trimming, pragmatic arts of compromise to get them acted on are both needed. All positions on the continuum are justifiable.

# PART 2 - OVERVIEW OF THE COLLOQUIUMSESSIONS

#### Green 'plans' I policy fi-ameworks

Canada and the UK are among the handfnl of countrieswhich have so far tried to set out comprehensive national frameworks for environmental policy. *Glen Toner*'s paper described the creation and contents of Canada's 'The Green Plan', and *Tom Burke* did the same for the UK White Paper 'Our Common Inheritance'.<sup>†</sup>

The stories of the two are strikingly similar. Both were produced, under intense time pressure, by small 'islands' of highly committed people within indifferent or suspicious government structures. Consultation of outside interests was either non-existent (UK) or a botched afterthought (Canada).

Both had to hold back from clear prescriptions for action on the thornier problems such as global warming because of opposition from elsewhere in government. Ministerial loss of nerve forced last-minute rearrangements of both texts to hide the more radical parts away at the back. Both were as a result written off by environmentalist as hopelessly weak and compromised when they appeared, but both have been steadily gaining prestige and influence since.

The discussion of paradigm change above illuminates these similarities. In both countries the strong sustainability agenda was politically unacceptable at the time the documents were produced. So the authors had to proceed indirectly. The first essentials were to puthe

<sup>&</sup>lt;sup>†</sup> Editor's note: The text of Burke's paper is not available for publication.

'hard' environmental issues on the agenda and make the terminology of sustainability available and respectable for future debate – especially important in the UK Civil Service culture, which suppresses heterodox ideas by denying legitimacy to the words needed to express them.

This was most easily achieved by planting the plums of heresy deep in large puddings of more banal material on the 'softer' environmental issues – hence the length, discursiveness and attempt at comprehensiveness the documents share. However it was still necessary to express the most shocking ideas very delicately, with the result that the true significance of much of what Ministers signed up to is only becoming apparent over time – hence the increase in prestige of the plans after initial bad reception.

Having put the issues on the agenda, and thus made them potentially available for competition between politicians, it was necessary to ensure that this happened; in other words to create a mechanism to ensure that the plans ratcheted forwards, This was done through such techniques as nominating people to take public, visible responsibility for areas of the plan (for example in the UK the requirement that each Department nominate a Minister to be responsible for its environmental performance), and setting a timetable for public reviews of progress towards targets.

#### **Continental contexts**

Ian *Jackson*'s paper showed that similar tactics have been used to secure a pollution control for the Great Lakes. The International Joint Commission set up to deal with 'boundary waters' issues affecting both Canada and the USA is formally subordinate and passive, but has been able to seize and keep the initiative in forcing an enormously ambitious and expensive cleanup programme.

Three steps helped. First, the two governments were persuaded to sign an agreement including goals such as zero emissions of toxic substances which were perfectly explicit but whose real implications, such as costs, only became apparent to the signatories over several years. 'Through the 1980s the governments were finding out what they had signed'.

Second, the IJC got itself mandated to report biennially on progress, thus putting itself in the position of judge of the actions of the implementation agencies, the national governments. Third, the IJC has turned its biennial reporting sessions into large and prominent conferences on the state of the lakes, thus harnessing public opinion to support its work and ensure that the two national governments have to keep up with each other. David Wilkinson described the far more formalised 'continental context' of UK environmental policy, the European Community. Its competence on environmental matters has been progressively entrenched, and seems likely to befurther strengthened, for example by tougher compliance measures and the introduction of sustainability as an explicit EC aim.

EC regulations already cover industrial pollution, air and water quality and hazardous waste, and are being extended to general waste management, recycling and environmental appraisal. This, and a proposal on carbon and energy taxation which would break new ground in Commission influence, have provoked the customary UK indignation about 'sovereignty'. But notwithstanding the distaste many British politicians feel for both the word and the fact, the pattern of relations is increasingly federal.

#### Regional / provincial I local issues

Environmental responsibilities are split between central and local government in the UK, and between national, provincial and municipal levels in Canada. Both systems show 'jurisdictional cloudiness' and competition between different levels for control of environmental policy.

In Canada the competition described by *Gary Posen*'s paper is often positive, with for example the National and Provincial Governments vying with each other to apply rival Environmental Assessment processes to large projects, or Ontario seeking to cap the *voluntary* National packaging accord by making it *mandato y*.

In the UK in contrast the competition often takes the *negative* form of central government seeking to prevent local authorities taking ownership of environmental issues. As *Mark Lazarowicz*'s paper pointed out, expansion of urban car use (stimulated by national government policy) is a very serious local and global environmental problem. Many cities wish to tackle it through public transport investment, road pricing, traffic calming, trunk road alterations and the planning system, but central government denies them the powers and the freedom to raise finance.

Similarly, many councils are unable to meet public demands for recycling because Government controls over local government capital expenditure prevent councils raising the money even for fast payback investments and restrict flexibility in spending what resources they do have.

The Canadian form of competition may produce inefficient duplication and friction; however the British form carries a worse risk of inaction.

#### **Public and media responses**

Different parts of society in both the UK and Canada show different levels of awareness of, and response to, environmental issues.

Barry Watson's paper showed that public concern as indicated by opinion polls rose rapidly during the late 1980s. Partial explanations include widely reported environmental disasters (Exxon Valdez, Chernobyl), freak weather in both countries (taken by many as a harbinger of global warming) and pressure group activity. Some measures in polls of the importance of the environment have fallen again over the last couple of years, but they are still far higher than before. There is evidence that concern is becoming more mature, in the sense of better informed, integrated into overall perceptions rather than centred on transient issues.

*Greg Neale's* account of media treatment of the environment told a similar story. From ignoring green issues, the media have progressed through treating them as an occasional joke or fringe item to accepting them as a regular source of stories, and finally to employing environment correspondents on the same footing as finance or transport ones.

However it was argued that neither polling nor reporting has fully caught up with the maturity of the public's response. The ways opinion polls ask the questions can still elicit responses in the form of simplistic, single-issue concerns. These may misleadingly encourage industry and government to respond at an equally superficial level. This effect might in turn partly explain the very low trust the public appear to place in politicians' and industrialists' statements on the environment and green claims about products, compared to (in rising order of credibility) government, media and environmental groups.

Similarly, media editors prefer the standard news reporting model of scandal and conflict over simple issues, with 'goodies' pitched against 'baddies' (often authority). The tendency to cast green spokespeople such as Jonathon Porritt or David Suzuki as heroes of this kind of conflict has helped advance the green cause, but is becoming an obstruction to the more complex, many-dimensioned and consensus-seeking discourse which (as argued elsewhere) is now needed to make progress toward solutions. Environment correspondents themselves are increasingly trying to persuade editors to let them present issues in a more rounded and considered way.

#### Industry responses

Many smaller companies are carrying on blissfully unaware of environmental issues even as a regulatory threat. In Canada, the dangerously simple 'pioneer settler' view of the natural world as something to be conquered, subdued and exploited still persists, notably in the logging industry. This mentality continues to sanction enormously ecologically damaging activities such as clear-felling on Vancouver Island. The tendency to take environmental issues at a purely image level– the 'green petrol pumps' syndrome -was mercifully absent from the discussions, although all too prevalent outside. This was largely to blame for the deep scepticism the public are now reported to feel about the green claims made for companies and products. Government action is urgently needed to set reliable and consistent standards for these claims if market mechanisms are to work as Ministers wish.

All four of the large companies which reported their own environmental programmes firmly believed that it was essential to 'put their own house in order' first and make marketing claims after, and all reported impressive moves to do so.

Ian *Coull* concentrated on the low-energy design and energy efficiency achievements of Sainsbury's. Over a number of years of consistent commitment, basic measures have served as stepping stones to increasingly sophisticated ones. Recent developments include sophisticated computerised monitoring of energy use against targets calculated individually for each store, research into ozone-harmless refrigerants, and integration of all heating and cooling loads (including bakeries) minimising the need to useenergy specifically for space heating.

*Cameron McLatchie* described the UK's backward position on recycling. This was partly due to the cheapness of landfill. If the Government wished to meet its own recycling target, let alone the European Commission's much higher one, Government intervention will be needed to help create market demand for recycled products and to encourage investment in collection and processing infrastructure. British Polythene Industries have invested heavily in plant and collection systems for recycling.

These are operating viably, but the company cannot justify further expansions without changes in the market, and these must be driven by Government.

*George Holywell* explained that in 1990 Alcan's Board adopted the company-wide objective of 'harmonising the company's processes with nature' and 'achieving compatibility between the environment and the company's products and processes'. Each operating company is required to report regularly to the Board on topics including compliance with regulations, energy and resource efficiency, polluting emissions and financial implications. He felt that a company's annual report should be a valuable tool for informing a wide range of 'stakeholders' – not just shareholders – of the company's performance. Alcan's philosophy is 'don't just trust us – track us'.

*Michael* **Robertson** described Petro-Canada's commitment to better environmental performance through its leakage and spills elimination programmes, its assistance to smaller oil companies through producing a code of practice for the whole industry, and its involvement with environmental groups. He stressed the need for steady effort over a long term to secure progress. Government needed to help industry by taking a proactive, long-term, strategic view of environmental policy, and maintaining it consistently, rather than merely react to crises.

The message of all these industries was that companies – at least some successful large ones – can be better at taking a long and consistent view of environmental changes than politicians. But no company can go against, or even very far ahead of, its market. The programmes described are firmly within the category of enlightened self interest.

For example, Sainsbury's stock environmentally friendly products and encourage customers to buy them, but stop short of banning the non-environmental alternatives. They are funding research on the impact of new out-of-town stores on transport, in the expectation that it will confirm their belief that it reduces congestion. But it will be interesting to see how they react if the results support the view of most environmentalists that out-of-town shopping adds to car use and car dependence, disadvantages non-car users, accelerates the decay of resource-efficient urban infrastructure and patterns of life, and generally exacerbates local and global environmental problems.

Similarly, however much Petro-Canada improve the efficiency and cleanness of their operations, the fact remains that their business, the extraction, processing and distribution of petroleum, is intrinsically unsustainable.

#### Conclusion

The discussions threw up a dismaying number of serious threats and problems. However they were also rich is possible solutions, or at least ways of working towards them. So the overall message was guardedly positive: with environmental organisations continuing to lead public perceptions and demands, business developing the technical solutions, governments setting the economic frameworks to make them viable (the element currently most in doubt) and all of us working with rather than against each other, we might just save the world.