

CLIMATIC CHANGE: A NEW CAMPAIGN TO PROMOTE ENERGY EFFICIENCY IN THE PUBLIC SECTOR

Summary

1. At the meeting on climatic change chaired by the Prime Minister on 12 January colleagues decided that there should be a new campaign to promote energy efficiency in the public sector.

2. The aims of this campaign should be:

- (i) to demonstrate the Government's commitment to energy efficiency and so set an example for other energy users;
- (ii) to achieve savings in public sector energy costs, rising to around £45m p.a. for Government Departments.

To achieve these aims we need to tackle the barriers which have inhibited progress so far.

3. We propose a phased campaign starting with Government Departments. It would subsequently be adapted and extended to public services, such as the National Health Service, and used as an exemplar for Local Government. This paper concentrates on the first phase. The principal recommendations are:

- (i) as a first step a Minister should be given responsibility for energy efficiency in each Department. We will create a small team to brief each Minister; enabling them to set targets for their departments and agree plans on how those are to be achieved.
- (ii) new arrangements should be agreed with the Treasury to enable Departments to retain part of the savings made. Without such incentives progress is likely to remain slow.

Background

4. There have been considerable advances in the last five years in the efficiency of energy use in industry. Progress in the commercial and domestic sectors has been slower, but the most successful private sector organisations have shown what can be done.

5. By contrast, progress in the public sector has been patchy and disappointing. Within central Government, investment of both money and management effort has varied widely between Departments and from year to year. In general it has not approached the guidelines of 10% of energy expenditure, and one man-year of management per £1 million expenditure recommended by the Audit Commission for Local Government in a 1985 report. Only the Ministry of Defence has adopted a strategy covering more than one year with quantified targets and incentive arrangements. The development of contract energy management under the joint 1987 EEO/Treasury guidelines has also been disappointing, without a single contract placed by a Government Department. Similarly, within Local Government, monitoring by the Audit Commission has shown a disappointing take-up of the recommendations in their

1985 report.

6. The evidence suggests that there is substantial scope for improvement. In 1987, excluding transport, public sector expenditure was £1770 million or 8% of the UK total. From analysis of surveys on the civil estate the Property Services Agency have estimated that if all cost effective measures were adopted they would reduce the bill by over 20% - although this might require investment amounting to 70% of current annual expenditure on energy. We believe it would be realistic to aim to reduce Departmental energy use by 15% over 5 years. In 1985, the National Audit Office reported that it might be possible to save 25% of National Health Service expenditure on energy. In local Government the Audit Commission has estimated that savings of 12-17% might be possible.

7. Progress within central Government has been inhibited because expenditure on energy is seen as an uncontrollable overhead, and because of a lack of clear responsibility. This is changing. From April 1990 Government Departments will assume full responsibility for their energy use. But a number of important barriers remain:

- (i) a lack of clear strategies to which Departments are committed;
- (ii) a lack of commitment of technical and financial resources;
- (iii) inadequate incentives.

Recommended Measures

8. We recommend a phased approach, tackling Departments first and public authorities and Local Government later. Departments need to put their own houses in order and gain more experience of how successful programmes work before requiring changes in their client bodies. The NHS also needs to digest the new reforms, which will, of course, give the service new incentives to manage all its costs efficiently.

9. For Departments we propose the following steps:

- (i) A Minister should be given responsibility for energy use in each Department. We will set up a small team to brief the Minister. Departments can then set target levels of savings and investment over a five year period and identify how those savings are to be achieved. We propose that the targets should be based on the Audit Commission recommendations for Local Government (see para 5).
- (ii) Incentive arrangements to enable Departments to retain part of their savings should be agreed with the Treasury. We recommend that 50% of the net present value of expected net savings over a 5 year period should be retained. At least half of the benefit to each Department should then be used for incentives within it.
- (iii) Existing Treasury/EEO guidelines on the use of contract energy management should be streamlined to leave Departments free to invest on the basis of their own

judgements of value for money within agreed limits.

- (iv) A system for monitoring progress should be established. This should include the publication of measures on performance within the Public Expenditure White Paper and the construction of a league table.

Local Government

10. As noted above, it is too early to make specific recommendations for other public services and Local Government. However, we propose that a further exercise with the Audit Commission in England and Wales (and the equivalent body in Scotland) should be initiated now. We also propose that the Department of the Environment and the Territorial Departments examine their existing arrangements for giving support to local Government to ensure that those arrangements do not obstruct the introduction of initiatives along the lines proposed for central Government.

Resource Implications

11. At present levels of expenditure on energy, adoption of the above guidelines by Government Departments could increase investment in energy efficiency from £16 million per annum to perhaps £30 million. Adoption of the proposals would not involve an equivalent increase in public expenditure because of the savings generated. Adjustment to Survey controls may, however, be necessary to ensure that Departments are not worse off following the adoption of the strategies and to accommodate incentive arrangements. This would be a matter for agreement with Treasury.

6th March 1989

Department of Energy

SUMMARY

1. The 1988 General Assembly was notable for expressions of alarm about the environment. Industrial and other countries had - and have - different perceptions of the problem.

(Paras 1-2)

2. Against a background of rising public concern, we were able to play a prominent role in negotiations over three major environmental questions before the Assembly: climatic change, preparations for the 1992 World Conference, and toxic waste. The Assembly gives opportunity to influence international opinion on international matters: but current divergencies show that agreement will not be easy.

(Paras 3-6)

3. The Assembly brings problems into political focus. Although the work of many UN Agencies and associated bodies has an environmental dimension, UNEP is the main technical body for the environment. It needs more effective support. Proposals for institutional change do not seem to have been thought through. Some interesting Soviet ideas but French/Dutch/Norwegian ones have caused confusion. In the meantime we have created a ginger group of UN Permanent Representatives to co-ordinate and try to reconcile environmental policies.

(Paras 7-12)

4. Much future work in New York will be focussed on climatic change and preparations for the 1992 Conference. Little substantial likely on climatic change until the Intergovernmental Panel on Climate Change has reported. On the Conference we need to focus on environmental issues and avoid too much entanglement with development questions. The Conference could best be held in Brazil.

(Paras 13-20)

5. Whatever its shortcomings the United Nations represents the only global means for coping with global problems. Machinery is there to be used, directed and adapted. We are well placed to exercise guidance if not leadership on environmental issues.

(Para 21)

The Rt Hon Sir Geoffrey Howe QC MP
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THE GREENING OF THE UNITED NATIONS

Sir,

At the meeting of the General Assembly in 1988 alarm was expressed by leaders from nearly all parts of the world at the state of the planetary environment. Here I examine how the environment became high politics, what is likely to happen about it within the United Nations, and what our own role might be.

THE BACKGROUND

2. There can be no argument that care of the environment is a global problem requiring global treatment. Thereafter opinions diverge on the character and gravity of the disease, responsibility for its causes and cures, and its effects on the direction of the world's economy and security generally. Thus at the General Assembly speakers from the industrial countries laid emphasis on the perils of climatic change, the depletion of stratospheric ozone, deforestation in the tropics, the accelerating extinction of species, and the general consequences of land, sea and air pollution. Representatives of poorer countries emphasised the prime responsibility of the industrial countries for what had happened, and their corresponding duty to carry most of the burden for clearing things up. In the meantime they argued their own right to follow in the same path as the industrial countries in the name of development and higher living standards, and said, some more explicitly than others, that if their policies were to take better account of the environment, then they would need to be bought off. In particular many saw the problems of debt and the environment as interwoven. But none disputed that environmental concerns were now at the top of the international agenda.

3. Your own comments in the General Assembly and the Prime Minister's speech to the Royal Society on 27 September were widely noted by other delegations in New York. They gave us a solid base on which we were able to play a prominent role in the negotiations on the three major environmental resolutions eventually adopted by the Assembly. These dealt with the protection of the global climate, the proposed 1992 United Nations Conference on Environment, and the traffic in toxic wastes. We did best on the Maltese initiative on climatic change. Working closely with the Maltese, Canadians and Swedes, we were able to achieve consensus on a sensibly worded text

which properly reflected the work of the Intergovernmental Panel on Climate Change. We got hardly any help from our European partners, who showed little interest, or from the Americans, who were - and remain - paralyzed by lack of direction from Washington.

4. The deliberations of the General Assembly took place against a background of rising public concern. For many people 1988 was a year of drought, floods, hurricanes and other disasters. Record summer temperatures provoked a spate of speculation about global warming. Disposal of urban refuse and toxic waste, the pollution of beaches and harbours, the threat of more nuclear accidents, and the hole in the ozone layer, became the daily diet of newspaper readers. Environmental problems in their multifarious aspects were also the subject of innumerable conferences in many countries. One I found of particular interest was organized by Time magazine at Boulder, Colorado. This resulted in the publication of a special issue of the magazine devoted to the earth as Planet of the Year.

5. Nevertheless the debates in the General Assembly attracted relatively little attention. The action seemed to be elsewhere, and for some it was. But it would be a mistake to dismiss the activities of the Assembly. For the governments of many countries, particularly the poor, it is their main window on the world. It is where they learn and find out about what is happening elsewhere, where minds are often formed, and intellectual fashions, even at home, are often set. For this reason the Assembly gives us a useful means to influence or lead international opinion on environmental matters. Here more than anywhere we can get across the message that protection of the environment is in the crudest self interest of every member state as well as in that of mankind as a whole, that the environmentally damaging processes which were a feature of our own industrialization do not have to be repeated by others, that plans for development in each country have to be related to the real resources of that country over a sufficient time scale, and that management of the environment is a common responsibility which we have to meet together.

6. It will not be easy. The 1987 Report of the Brundtland Commission on Environment and Development was of value both for setting out the issues in coherent form and for its relative impartiality in doing so. No-one contested the need for more respect for the environment. But even though most welcomed the Report in the General Assembly of 1987, it was often a qualified welcome. For example, the Prime Minister of Zimbabwe argued that "the current inequitable international economic system is the major cause of environmental degradation in the developing world" and that "to ask us to plan for our survival tomorrow when our survival today is in doubt is to demand too much of

us". These arguments were echoed by the Indian Prime Minister and many others. They were repeated at the 1988 Assembly. We will not make quick headway against them. But the presence in New York every autumn of many of the world's leaders provides us with the best opportunity of doing so.

INSTITUTIONAL FRAMEWORK

7. The General Assembly's interest in the environment is general and political in character. Few experts speak at its meetings, and the aim of its debates is more to bring major problems into focus than to lay down solutions to them. Specific problems, whether health, postal services, labour questions, or others, fall to the Agencies set up to deal with them. In the case of the environment, the body principally responsible is the United Nations Environment Programme (UNEP) set up as a result of the Stockholm Conference on the Environment in 1972.

8. UNEP has not been an unqualified success, partly because of the somewhat intangible character of its mandate, and partly because of lack of support, in particular financial support, from member governments. Environmental problems also fall into the area of responsibility of such other Agencies as the World Meteorological Office (WMO), and the Food and Agriculture Organisation (FAO). Some problems are dealt with by one or more Agency. For example, the WMO and UNEP jointly established the Intergovernmental Panel on Climate Change, and the most important of the four functions of the World Climate Programme is jointly managed by the WMO, UNEP and the International Council of Scientific Unions. In such circumstances UNEP has had difficulty in co-ordinating work on environmental questions, and will need more help and support in the future.

9. Environmental concerns reach far into the work of other Agencies or UN-associated bodies. In the case of the World Bank which, like the International Monetary Fund is part of the United Nations system (albeit with special status), we have worked successfully to give higher priority to the environmental dimension in its programmes. Such organizations as the United Nations Development Programme (UNDP) and the United Nations Childrens Fund (UNICEF) which are voluntarily funded, are likewise paying greater attention to the environment. Those concerned need to be kept up to the mark. But across the whole UN system environmental questions are given more weight and it is this factor more than any other which has led to the gradual greening of the United Nations.

10. Naturally some have questioned the present arrangements. Some governments have argued that what is needed is to strengthen and adapt existing bodies, while others have argued for a more drastic approach. Perhaps the most interesting ideas for radical change come from the Soviet Union. In his speech to the General Assembly on 27 September, the Soviet Foreign

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Minister suggested work on how to turn UNEP into an Environmental Council, not unlike the Security Council. He also proposed a series of meetings, the third to be at Summit level, to put together a global strategy. Subsequently the Soviet Deputy Foreign Minister floated with me the idea of converting the present under-worked UN Trusteeship Council into a Trusteeship Council for the Environment, which could act as a co-ordinating body for the various UN bodies already involved in environmental matters. In his speech to the General Assembly on 7 December Mr Gorbachev proposed the establishment, within the framework of the United Nations, of a new centre for emergency environmental assistance. He described these functions as being "to send international groups of experts, without delay, to areas with a very badly deteriorating environment". As with some other recent Soviet proposals, they have not yet been followed up. I have asked once or twice for elucidation, so far without result. But I have just had a message to say that the leader of the Soviet delegation to the forthcoming Ozone Conference in London next month will discuss the whole matter with me on that occasion.

11. The French have recently put forward ideas for the establishment, under the auspices of the United Nations, of an authority responsible for combatting any further warming of the atmosphere. Their ideas are set out in a draft declaration for consideration at the Conference to be held under French, Dutch and Norwegian auspices in The Hague on 11 March. The unsecret secrecy which has surrounded these proposals, the lack of reference to existing international work on the subject, and the way in which such a debate would cut across existing institutions, have not recommended these ideas to most of those who know about them. There is an obvious risk of procedural confusion which could be compounded by the arbitrary character of the list of those invited to the conference.

12. In the meantime we have attempted to bring some measure of co-ordination into work and advice on the environment in New York. During the last General Assembly I ran a small ginger group of some 15 Permanent Representatives to co-ordinate work on environmental matters, and in response to the likely work programme this year, I recently revived the group. We are not of course alone in taking environmental matters seriously. The Canadians, Norwegians and Swedes play an important part, and in each of their cases have appointed roving Ambassadors to look after environmental problems and attend some of the increasing number of international conferences on the subject. Some of these missions are reinforced by environmental experts during the General Assembly (and I would welcome one or two myself if environmental matters were to take priority in the General Assembly this autumn).

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NEXT STEPS

13. Much future United Nations work on environmental matters will be influenced by the 1988 resolutions on protection of the global climate and the Conference on the Environment to take place in 1992. On global climate Resolution 43/53 of 1988 recognized the importance of the Intergovernmental Panel on Climate Change in working out an international strategy. The Secretary-General will report on progress to the General Assembly later this year. His report can hardly be substantive in view of the time required by the Panel to complete its work. So in spite of the great interest in the subject, I doubt whether there will be much progress on it in New York until 1990.

14. But when the time comes, debate could well focus on the idea of an international framework convention for the protection of the atmosphere. The Prime Minister of Canada, echoing the conclusions of the Toronto Conference in June 1988, has already said that he hopes such a draft convention will be ready by 1992. Others are talking about compensation for victims, and sanctions on offenders. There are obvious difficulties in the way of a convention. The protracted and eventually flawed negotiations over the Law of the Sea are not an encouraging precedent. But the establishment of some sort of international ground rules seems to me an essential aspect of any co-ordinated response to the infinitely complex problems which would be raised by climatic change. We have yet to determine the direction and character of such change. But we can be certain that it would affect all parts of the world in different ways, and that, by virtue of the disruption caused, would permit no winners. I believe that work on the international handling of these issues on different time scales is already in hand in London, and I should be happy to contribute to it.

15. In New York the main environmental topic this year is likely to be preparations for the 1992 World Conference. These preparations are on the agenda of the Governing Council of UNEP to be held in Nairobi from 15 to 26 May, and on that of the Second Session of the Economic and Social Council to be held in Geneva in July. The next General Assembly is required to take action on the scope, title, place and date of the Conference.

16. The issues which seem likely to figure in both the preparations for the 1992 Conference and the Conference itself are already apparent. First there is the relationship between environment and development issues. There is no agreed definition of the Brundtland concept of sustainable development. But among representatives of the poorer countries the fear was evident at the 1988 General Assembly that it would be used by donor countries and multilateral agencies to make aid conditional on the adoption of environmentally sound policies by their governments. The reply was to call for new resources and the transfer of relevant technology. It was also claimed that as long as debt deprived such countries of resources for development, environmental concerns would have to take second place.

17. Obviously we cannot get far in tackling global environmental problems unless we take account of the concerns of the poorer countries. A process of education as well as help to these countries is necessary. They have to see that environmentally sustainable development is in their own best interest, and is not some conspiracy on the part of industrial countries to hold them back. The same goes for other countries reckoned industrial already, but with industrial programmes which could do a lot of damage. A prime example is the Soviet Union which at present looks to increased production of chlorofluorocarbons to sustain its computer industry. The market economies of the West have likewise much to learn. In all cases we have to work towards shared responsibility and a broad balance of interest.

18. Next there is disagreement on the objectives of the Conference. The 1988 resolution merely stated that the Conference could make recommendations for strengthened international action on the environment. There is as yet no Western or European position. We pressed hard last year for primary focus on the environment. Some, including the Canadians and Dutch, who co-sponsored the 1988 resolution, may want to stress development issues. As the Executive Director of UNEP said to me last week, this would be to lose the chance of seeing progress on environmental issues, and indulge in yet another of those North/South, rich/poor, developed/developing dialogues of the mostly deaf. The poorer countries could certainly be counted on to exploit their opportunities in this respect. For their part the Russians and the Eastern Europeans seem to want to use the Conference to promote their ideas on international ecological security (a set of norms and principles in the form of a convention governing environmental behaviour). Their thinking has yet to be co-ordinated with the proposals put forward by Mr Gorbachev and others at the General Assembly last year. But to judge from what we have heard, they want a conference as limited as possible to environmental problems.

19. The Executive Director of UNEP has asked all members of the United Nations to give their views on the Conference before a deadline of 15 March. I have put the subject on the agenda of our ginger group of Permanent Representatives, and am discussing it individually with them. Obviously issues of development cannot be excluded. We may have to be flexible over the title. But obviously the more we can focus the conference on environmental issues, the more useful it will be. Here we have an opportunity to influence the shape of the conference before positions become too hard.

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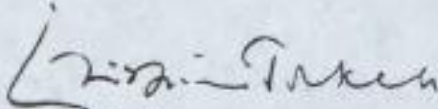
20. On the site of the conference both the Brazilian and Swedish Governments have offered to be the hosts. The Canadians are also ready to come forward. President Sarney of Brazil apparently believes that the choice of Brazil would help persuade Brazilian opinion of the importance of paying greater attention to environmental matters. The Swedish Government would be prepared to withdraw its own offer if a consensus formed round the Brazilian bid. In my view there is a good case for holding it in Brazil. The importance of the Brazilian rain forest in global environment, the need to get the Brazilian government and people to behave more responsibly, and the advantages of giving the most important South American country a stake in the success of the conference seem to me strong arguments. We could gain credit by an early announcement of any support for the Brazilian bid.

CONCLUSION

21. The greening of the United Nations may be incomplete, but it is clearly evident. Whatever the shortcomings of the organization in its many aspects, it represents the only existing global means for coping with what are universally acknowledged to be global problems. The machinery is there to be used, directed, and, if need be, adapted. As one of the original designers, with a continuing strong position within the United Nations, we are well placed to exercise guidance if not leadership on issues about which most governments and people feel lively concern without knowing what to do next. These issues go to the roots of modern society and deeply affect its future prospects. No wonder there should be so much concern. No wonder that leadership should be so badly needed.

22. I am sending copies of this despatch to the Department of the Environment, the Cabinet Office, and the Overseas Development Administration, to the Permanent Representatives to the European Community and the Office of the United Nations in Geneva, and to HM Representatives at Washington, Paris, Moscow, Ottawa, Bonn, Stockholm, Brasilia and Nairobi.

I have the honour to be
Sir
Your obedient servant


Crispin Tickell

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SAVING THE OZONE LAYER

Note by the Conference Rapporteur, Dr Martin Holdgate

The National and international responses to environmental concerns have often gone through three stages:

First, the reluctant acceptance that there is a problem;

Second, the development of an action plan or measures, which go no further than the minimum needed to achieve credibility and which are commonly limited by the perceptions and economics of the developed countries;

Third, the slow, and often partial, supplementation of this action while the environment continues to deteriorate.

This Conference has, wisely, turned its back on this obsolete and dangerous pattern. As the Prime Minister said in her opening statement, we have a real problem that demands effective action. as President Moi said, conclusions that are left on the shelf are useless. The outstanding feature of this Conference has been the almost universal commitment of the delegations to action. And the predominance of delegations from the developing world is a practical demonstration that the depletion of the earth's stratospheric ozone layer is recognised as a truly global threat to human health, to crops, and to the balance of living systems.

Their presence and statements have reminded us, also, that the problem must be solved in a way that does not jeopardise the development of the many nations that still experience what, twenty years ago, we were calling "the pollution of poverty".

Our first technical session reviewed the scientific evidence. It has been summarised by Dr Lang and Dr Apling so that I need only rehearse a few key facts here. I suggest that there are five such points:

First, that the depletion of stratospheric ozone is a proven phenomenon, with a 50% reduction in springtime concentrations over Antarctica since 1974 and a 5% to 7% depletion in medium to high northern latitudes in winter:

Second, that this depletion is due to the chlorine, and very probably the bromine, released from Chlorofluorocarbons and halons in the stratosphere when their molecules are bombarded by solar ultra-violet radiation - each chlorine or bromine having the power to break down thousands of ozone molecules:

Third, that there is 6 times as much chlorine in the upper atmosphere now as in 1900 and that because the substances releasing it are so persistent, the Antarctic ozone hole will remain for 50 years:

Fourth, that any long-lived chlorine or bromine containing substances, including carbon tetrachloride or methyl chloroform, can have the same damaging effect:

Fifth, that CFCs in particular are also a threat because they are greenhouse gases.

Our second technical session, just summarised by Sonny Ramphal, emphasised the other limb of the problem. These substances are prevalent because they are useful. Refrigerants, insulating materials and electronic products are valuable and vital ingredients of contemporary life in the developed countries and must be provided within the development process of the Third World. We cannot just get rid of CFCs, halons, and other ozone depleters without substitutes - and those substitutes must themselves be environmentally safe.

This last point demands emphasis. When they were introduced, chlorofluorocarbons were thought of as the ideal materials because they were so unreactive. They surprised us. The appearance of the Antarctic ozone hole surprised us. The history of science is full of surprises. That is why so many delegates were wise to emphasise the need for research, testing, care in the introduction of new substances, and thorough monitoring afterwards. But it is clear that industry is rising to the challenge: and from that second session I note three key points:

First, not all uses of CFCs are equally easy to replace. Aerosols present fewest problems, so long as people do not put butane-filled cans on the garden bonfire. Already there are refrigerants that are far less ozone depleting than the CFCs currently in use, and safe refrigerants are in sight. Substitutes in insulating foams are a little more difficult, but attainable. The electronics industry has most problems, but can at least halve its 1986 consumption by 1993. Halons remain the best materials for fighting certain kinds of fire, although they do not need to be used in training exercises.

Second, industry needs a dependable context within which to develop substitutes. It faces major investment in science, development, and application in manufacture. Suppliers and users must be able to work together in confidence that their investment will not suddenly be invalidated by a change of mind and of time scale by the world's political community. They must also have safe outlets so as to be able to dispose of the materials we are seeking to withdraw from use.

Third, industry accepts the need to go further than the Montreal Protocol and the need for ultimate elimination of ozone-depleting chemicals.

All this is encouraging. And from these analyses it is clear that the burden of decision rests, as it should, on the responsible Ministers and Governments - on you. And the most heartening feature of this Conference has been the unanimous acceptance of that responsibility by delegates.

The debate in the third Session today on "Shared Awareness" and in the four general discussions made this clear. I will summarise these statements under three main headings:

First, there was no dissent from the proposition that we confront a global problem that must be dealt with urgently. The response must involve, as Mr Palmer said in introducing his session, a two-pronged attack involving Government on the one hand and citizens on the other. Concrete actions were urged by many delegations. They need to be focussed and defined - for as Mr Palmer also said, this is a clear problem with clear solutions. However, many delegations have stressed that action to safeguard the ozone layer has to be viewed as one element in a larger effort to protect the atmosphere. Trans-frontier pollution and climatic changes induced by greenhouse gases pose threats as great as or greater than those from ozone depletion. Delegates of several states, including Kiribas, the Maldives and Bangladesh reminded us of their vulnerability to sea-level rise and to increasingly violent tropical storms. Action to implement an international legal instrument to safeguard the ozone layer today is clearly seen by many delegates as one step in wider action to protect the atmosphere as a common concern of all nations.

Second, it seems universally agreed that we have to secure the worldwide acceptance of - and implementation of - the Vienna Convention and the Montreal Protocol. Many delegations urged those nations who had not yet signed or ratified to do so and more than one urged that an awareness campaign, promoting the Convention and Protocol be mounted. We were gratified to learn from some 20 nations at this Conference that they were in the process of accession to the Convention and/or the Protocol. Many of these countries are not themselves major producers or consumers of ozone depleting substances, but they emphasised that they were motivated by a feeling of the need for global solidarity, and by the strong feeling that the action needed to protect all humanity should not be taken by a minority of nations, even if the production and consumption of damaging substances does rest in the hands of such a minority.

The first policy conclusion I draw from this conference is that all nations represented here who have not acceded to the Convention and Protocol should give serious consideration to doing so.

But there was an overwhelming view that the Protocol as it now stands is not enough. More than half the delegates who spoke announced that they were themselves committed to going further. The spokesmen from industry have confirmed this is feasible. The scientists tell us that the problem will not be solved unless we do.

The second policy conclusion I draw from the Conference is that the scope and time frame of the Montreal Protocol should be reviewed, and an ultimate end set to the production and consumption of ozone-depleting substances.

The Montreal Protocol is not, however, just about setting targets for withdrawal. As Minister Barlund, who will preside over its next Conference, emphasised; it is a wider instrument dealing with assistance and with active measures to discourage trade in damaging materials. Several delegations emphasised that these aspects of the Protocol also needed review. And this takes me to my third theme.

The actions we seek cannot happen without several kinds of supportive action, stressed by many delegations. Research is essential. Research both on the stratosphere and its behaviour and on the effects of the increased ultra-violet radiation at the earth's surface which ozone depletion will cause: monitoring of trends and effects; research by industry on substitute materials; research by independent environment protection agencies on the safety of substitutes; monitoring also of the manufacture, movement and use of ozone depleting substances. Governments have a responsibility to see that this research, monitoring, and testing is thoroughly done.

Another condition for success is coherent industrial planning, within the context of well-defined, stable, national and international policy, so that industry knows what is expected of it, by when.

A third condition is assistance. It is clear that the developing countries wish to adopt technology that will by-pass the ozone-depleting processes of today. They will need help of three kinds. They will need technical information - and it is encouraging that so many delegates have clearly found the technical surgeries at this meeting so useful. They will need financial aid to switch from present chlorofluorocarbon uses. And they will need technology transfer as a start to new and sounder pathways of development.

Some delegations have made it clear that this could be the essential condition for success - if we measure success by the universality of international response, as we should. The assistance elements in the Montreal Protocol were criticised as unduly vague. To ensure that new technology is introduced in the Third World, and obsolete and damaging practices are phased out, finance will be required. Some delegates believe a new special fund should be created. Mention has been made of the possible role of debt swaps. Many have emphasised that the developed countries had been fortunate in being able to accumulate capital through the timing of their development when resources were cheap and environmental concerns minimal. Now that the world had changed, the rich countries have an obligation to help the poor. Assistance is a more appropriate approach than any mention of sanctions against those who have real difficulty in complying with the Convention and Protocol. The solutions we seek have to be both technically and economically balanced, and equitable between nations.

Which comes back, in conclusion, to the simple fact that in this Conference we face a global problem which needs the concerted approach of the whole world. We have called for all nations to take the positive step of signing and ratifying the Montreal Protocol. We have asked them to consider strengthening that Protocol to eliminate CFCs and other ozone-depleting substances. We have asked for firm implementation. We have recognised the need for assistance so that the developing nations - who appear, from scientific analyses, to be most at risk of increasing radiation damage as a result of ozone depletion - can obtain the technology and resources they need if they are to join this worldwide movement. We clearly expect that no nation and no industry will move against the trend by seeking to expand any residual markets for CFCs or for the equipment to manufacture them. And - as the Citizen's Symposium which preceded our meeting stressed - we recognise the need for campaigns to inform all our citizens about why these actions are needed, why they are sufficient, and why they require the co-operation and support of everyone.

This has been a remarkable Conference. I do not recall seeing so many Ministers gathered together to address a major environmental concept since many of us met in Stockholm in 1972. It has been remarkable for its positive commitment. And I suggest that it is in a real sense the shape of things to come. Conferences, not to bemoan problems or discuss how to discuss how to work together, but practical Conferences, drawing North and South together, to discuss Our Common Future on Our Only One Earth, on which as President Moi reminded us, we are the guardians of the Creation.

CHAIRMAN'S MESSAGE: FINAL DRAFT OF 6 MARCH

FROM: THE RT.HON. NICHOLAS RIDLEY, MP
SECRETARY OF STATE FOR THE ENVIRONMENT
UNITED KINGDOM

TO: MR KAJ EARLUND
MINISTER OF ENVIRONMENT
FINLAND

Greetings.

As Chairman of the "Saving the Ozone Layer" Conference, held in London on 5/7 March, 1989, I offer a message to the important first meeting of the Parties to the Montreal Protocol which you will chair in Helsinki on 2/5 May.

Of the 123 countries registered at the London Conference, 80 were represented at Ministerial or equivalent level, including the European Commission. The discussions all revealed a remarkable consensus on the need for action to protect the ozone layer against the substances that are damaging it. They also revealed a recognition that this action, notably plans for phasing out ozone depleting chemicals, must be but one component in a concerted international effort to limit human activities that threaten the balance of atmosphere and climate. There was clear evidence of the growing concern of governments from every region of the world about the urgent need for effective action to safeguard the ozone layer.

SCIENCE

We heard convincing scientific evidence that the ozone layer had already been seriously damaged by chlorofluorocarbons (CFCs), halons and other substances. As a result, harmful radiation will reach the earth's surface, threatening human health, crops, materials and the functions of ecological systems. The persistence of CFCs in the atmosphere means that whatever is done now, the problem will persist for decades, and every year of inaction will aggravate

it. To restore the ozone layer to a satisfactory condition nothing short of the final withdrawal of CFCs, halons and other ozone depleting substances will suffice. The provisions of the Montreal Protocol were criticised by many delegations as not going far enough. There was general acceptance that the ultimate objective has to be the total elimination of production and consumption of CFCs and halons.

Many participants emphasised, moreover, that these chemicals were powerful greenhouse gases, and that they contributed significantly to threats to the earth's climate. Action to protect the ozone layer will therefore at the same time reduce the impact of global warming, which poses particularly serious threats to certain low-lying developing countries.

TOWARDS PHASE OUT

Senior industrialists informed us of the substantial efforts they were making to accelerate work on substitute chemicals. They reported actions already taken to prevent losses of CFCs to the environment, to recover and recycle more in refrigerants and to eliminate ozone depleting chemicals from aerosols and insulating foam.

Industry is investing heavily in these developments. Their speeches emphasised that substitution for some uses - such as aerosols and refrigerants - would be easier than for others, such as the electronics industry. They forecast little difficulty in meeting the goals of the Montreal Protocol and indeed recognised the need to go further, but some were doubtful about complete phase out by 1999. They urged the Conference to recognise that there were complex problems to solve; that the industry was giving priority to the development of safe alternatives; that they were investing in considerable research and they needed in particular a well defined time frame on which to plan investment. Delegates emphasised, nevertheless, that industry should be asked to concentrate even greater efforts on providing solutions and promoting them world-wide.

At the same time, it was recognised that the switch to alternative materials would involve major costs, and that it was necessary to plot a course for change that would not impede industrial and social advance in the developing world.

The informal Conference "surgeries" provided opportunities for delegates to exchange information and experience with scientists and industry representatives. This, together with the strong media interest, should increase awareness of the problems and solutions. Essential information is available, but should be much more widely propagated.

The International Citizens' Symposium, held in parallel with this Conference, reached broadly similar conclusions. While welcoming the Montreal Protocol, and calling on all nations to join in and abide by it, the Symposium emphasised that new scientific evidence had rendered it out of date. They called for amendment to strengthen the control measures, inter alia, to provide for greatly accelerated phase out of CFCs, halons and other ozone depleting chemicals, for substitutes that were environmentally safe and for much strengthened assistance to developing countries. There was general agreement on the emphasis by the Symposium that an informed citizenry is essential to the solution of the severe global problems.

Strong support was expressed for the review process laid down in the Protocol, the structure of which would need to be decided at the first meeting of the parties. The work of expert panels on scientific, technical, economic and environmental aspects would be of crucial importance.

POLITICAL ACTION

The Montreal Protocol came into force on 1 January 1989 with 30 parties. 3 countries have since become parties; 20 indicated at the Conference that they hoped to sign up soon; a further 12 indicated that they would now give serious consideration to the Protocol. The Japanese announced that they would be holding a seminar aimed at promoting awareness of the need to protect the ozone layer and at encouraging more countries in the Asian and Pacific regions to accede to the Protocol.

Of the 60 Government delegations participating in the debate all without exception recognised the gravity of the problem and voiced their determination to re-double efforts to reduce CFC use or to avoid dependence in the future. There was overwhelming support for the Montreal Protocol.

All industrialised countries are expected to achieve very significant reductions before the end of the century.

These would go well beyond the existing requirements of the Montreal Protocol and would be achieved in a variety of ways in accordance with the policies and practices of the countries concerned. They included regulatory measures, voluntary agreements with industry, codes of conduct, setting standards and stimulating innovation. It was made clear that action was already being taken to go beyond the Montreal Protocol.

Some newly industrialised countries indicated that they had begun investment in CFC dependent technologies. Their economic planning would need to take account of the global threats this posed. They asked how the Montreal Protocol could help solve this problem.

Constructive ideas were put forward for helping developing countries move to a CFC free world in a way that would not jeopardise their economic growth. There would be a need to look at ways of promoting effective technology flows, industrial investment, training, information exchange and facilitation of appropriate financial and economic support. Bilateral and multilateral aid would have important roles to play. Ways of helping developing countries should be a major feature of the review of the Protocol, and should be urgently examined in all appropriate international contexts.

It was pointed out that rapid rates of population growth with increased per capita use of resources will pose unique threats to the biosphere. Technical solutions were needed to help solve their human problems.

Concern was expressed about economic and environmental dangers if substantial reductions in CFCs and halons in one country or region were offset by slower action or even increased use in others. The Review of the Protocol should ensure that any more stringent provisions are applied even-handedly.

All countries, whether parties to the Protocol or not, agreed that there was urgent need for global action; that the Protocol was the right framework and that measures stronger than at present required would be needed. There was consensus that all countries of the world must commit themselves to concerted action to achieve the goal of saving the ozone layer.

AS THE REPORT OF THE WORLD COMMISSION ON
ENVIRONMENT AND DEVELOPMENT HAS SHOWN,
SENSITIVE ECONOMIC GROWTH IS A PREREQUISITE
FOR THE EARTH'S ENVIRONMENTAL SURVIVAL.

CONTINUED RELEASE OF OZONE DESTROYING CHEMICALS
IS INCONSISTENT WITH SUSTAINABLE DEVELOPMENT,
DEFINED IN THE REPORT AS DEVELOPMENT THAT MEETS
TODAY'S NEEDS WITHOUT COMPROMISING THE ABILITY
OF FUTURE GENERATIONS TO MEET THEIR OWN NEEDS.
WHAT IS NEEDED IS FULL PARTNERSHIP - GOVERNMENTS,
INDUSTRY AND CITIZENS ALL HAVE A KEY PART TO PLAY.

THE THREAT TO THE OZONE LAYER IS A THREAT TO
SUSTAINABLE DEVELOPMENT. WE CANNOT FAIL TO MEET
THIS COMMON CHALLENGE IF WE ARE TO HAVE A
COMMON FUTURE.

As delivered

EMBARGOED UNTIL DELIVERY *LOpn*
TO BE CHECKED AGAINST DELIVERY

SPEECH TO BE MADE BY THE PRINCE OF WALES AT A DINNER
FOR HEADS OF DELEGATION ATTENDING THE WORLD CONFERENCE
"SAVING THE OZONE LAYER"
AT THE BRITISH MUSEUM, LONDON

MONDAY 6TH MARCH 1989

I am delighted to have been invited to this dinner this evening and to have been asked to speak to all the distinguished delegates to this Conference. If I may say so, it makes an interesting change from talking to the multitude of different trees and plants in my garden and in my hothouse which, for those of you who don't have the pleasure of reading certain organs of the British press, is a serious occupation that is reputed to fill a substantial proportion of my time As a result I can assure you that there is absolutely nothing I don't know about the greenhouse effect!

On behalf of all those people who share my concern about the problems you are addressing, let me assure you of our gratitude and delight that you have come so far for this Conference and have, I hope, progressed so far during it. I am not entirely sure if I represent the man in the street in this matter, but part of the problem has been to convince the man in the street that unless the ozone layer is protected he won't be able to stand in the street without wearing sunglasses and a thick coating of no. 16 sun blocker (and that will just be in winter).

By now the man in the street has begun to get the message. Things have begun to move and this week they are moving further. Not long ago, the man in the street thought that the initials C.F.C. stood for the Canadian Flying Corps or the Cricklewood Football Club. Now he knows what a chlorofluorocarbon is, and what it does. It eats ozone. And we know what ozone does. It stops the sun from eating us. We now know that we are all in this together, unlike anything else before.

This problem, which you are addressing, does increasingly concern a great number of people in the street - especially young people - as they become more aware of the potentially catastrophic implications for life on this Earth. Those individuals who warned of the impending problems were dismissed at best as cranks and at worst as extremists. I know what that feels like! Her Majesty's Government is therefore to be congratulated for its initiative in organising this

international Conference. The Prime Minister and her Ministers at the Department of the Environment have taken a firm lead on this issue, and have won considerable respect both here in the United Kingdom and abroad for their determination. The fact that the United Kingdom will meet the Montreal Protocol target of a 50% reduction in CFC use 10 years ahead of the 1999 deadline is something about which this country can be justifiably proud. But that achievement has actually been made possible by the thousands of ordinary consumers and environmentalists whose concerted pressure persuaded the aerosol manufacturers to phase out their use of ozone-depleting CFC's by the end of this year.

Now, along with many of the world's politicians I am not a scientist. Nor am I a lawyer or an economist. I am a historian. I may also be naive, but I like to think I have a modicum of common sense which informs me that as far as we can tell at present ours is the only planet in the Universe able to sustain life as we know it. Until we have managed to discover somewhere else in some other galaxy which has a comparable set of atmospheric conditions it makes absolutely no sense to me to mess about unnecessarily with the fragile and delicate chemical compositions which perpetuate life on this globe as it hurtles mysteriously and harmoniously through space. It certainly makes no sense to destroy the ozone layer, which is what enabled life to develop on land away from the protection afforded by water in the oceans some 600 million years ago. We can't pretend that we aren't aware of the potential long term dangers to the intricate balance of Nature. Since the Industrial Revolution human beings have been upsetting that balance, persistently choosing the short term options and to hell with the long term repercussions. It seems to me that countless numbers of people are looking to their leaders and representatives to take bold decisions now - decisions which our descendants, yet unborn, will thank us for - and not to put off those critical decisions that will ultimately cause our grandchildren to curse us.

We have reached the stage now when it is no longer possible to dismiss such things as ozone depletion as just another environmental scare. It is gratifying to know that ICI and other companies are now beginning to invest millions in CFC substitutes. Have we not also reached the stage where we can resolutely challenge the power of any industrial lobby which seeks to ignore or disprove such matters of global environmental concern?

We are now aware of the problems facing us. Like the sorcerer's apprentice causing havoc in his master's home when he couldn't control the spell which he had released, mankind runs a similar risk of laying waste his earthly home by thinking that he is in control of things when he's clearly not. What, then, do we do about it? There is no doubt that the Montreal Protocol, signed last September, represents a major step forward in global cooperation, but it is essential to realise that the provisions of the Montreal agreement, calling for a 50% cut in CFC's by the industrialised countries were reached, firstly, before conclusive proof that chlorine was responsible for the hole in the Antarctic ozone layer; secondly, before last summer's satellite data revealed that worldwide ozone loss is as large as it is; thirdly, before the discovery of similar chemistry in the Arctic revealed the danger to that region; and, fourthly, without reference to CFCs' role as greenhouse gases. When these facts are added to the equation there is surely an overwhelming scientific case to change the treaty from a reduction to complete elimination. Rapid technological progress on CFC alternatives and substitutes since the treaty-signing tends to support this option. In this regard the recent European Community decision to eliminate CFC's by the year 2000 is encouraging, but I fear even that will be 10 years too late.

I suspect that not many people are aware that over and above their ozone-depleting impact CFC's are also highly significant greenhouse gases. They currently account for 20% of the greenhouse forcing. Moreover they have a century-long lifetime in the atmosphere, so that what we do or don't do now will certainly affect our great grandchildren. These facts have largely been ignored in the ozone debate. CFC's do not just mean ozone depletion - they mean sea level rises, floods, heat waves, droughts, changing monsoons and all the other effects of greenhouse warming. Therefore the two phenomena are tightly linked. The greenhouse properties of potential CFC substitutes must always be considered in the equation.

Nobody can pretend that these problems have an easy solution - especially when the whole world is so indivisibly involved. The Montreal treaty, and the steps that will follow to control global change, demand an international community that actually works together to protect an environment to whose fate it is inextricably tied. In this regard Mexico should be warmly congratulated for being the first country to sign the treaty and for pointing the way towards a new era in which North and South work together in this effort. It is particularly welcome that this Conference has been the occasion for 6 more countries to sign, because the need for worldwide participation is crucial. For example, if the industrialised countries cut back production by 50% as required by the treaty, it would only need 4 of the largest developing countries to produce CFC's up to the allowed treaty limit of 0.3 Kg. per person and global CFC production would not fall, but would increase by 50%!

Having said all this, I realise only too well the dilemma that developing countries find themselves in. While we simply must eliminate CFC's and Halons, we must not do so by forcing developing nations to forego some of the benefits of industrialisation which developed countries have enjoyed for so long. If, as I hope, the international community is prepared to adopt the precautionary, preventive approach it will require a major readjustment of conventional thinking as far as international relations and the world's economic structures are concerned. Given that the developed world is responsible for the vast proportion of the damage so far done to the ozone layer, it is surely incumbent upon our governments to accelerate the phase out of CFC's by all reasonable means available to them. In this regard, the call by the developing nations to the developed ones to provide tangible assistance, for instance through appropriate technology transfer, is a powerful one - and I suspect that increasing numbers of people living in developed countries would be happy to see such assistance if they knew it was designed to enable this vital issue to be tackled sensibly and in such a way as to permit the developing countries to achieve their major aspirations.

The terrible part about these global environmental challenges is that they tend to fill our hearts with gloom. Most people feel powerless when confronted by them and wonder what on earth they can do about them. There are constructive things that can be done, and I have tried to show what could be done internationally. As individual consumers we can also play a very significant role. After all, perhaps the single most important thing about the ozone story is the way it has reminded each one of us of our direct responsibility for protecting the environment. The revolt of the consumer against the use of CFC's in aerosols was dramatic. Since that revolt supermarkets have been falling over themselves to prove that they are the greenest of the green and, in order to meet the consumer pressure, the supermarkets are having to put pressure on their suppliers to meet higher environmental standards. Many people are still unaware of how widely used CFC's are in our household appliances and in the buildings around us. That is why it is so important, I believe, to stress the vital role industry itself can play - particularly in the construction industry (where CFC's form a major component in air-conditioning systems and in insulation foam), the microelectronics industry (where a recent survey in this country very disturbingly showed that around 65% of the companies questioned had no intention of taking any action on phasing out CFC's, which demonstrates the scale of the problem) and in refrigeration. While the construction and refrigeration industries would seem to be more alert to the problem, and genuinely intent on introducing substitutes and reducing wastage, the microelectronics industry seems to be labouring under the illusion that the decision of the aerosol industry has let their industry off the hook.

PRINCE CHARLES

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As far as the contribution governments can make is concerned, I do not believe it is enough to rely on voluntary action alone. There should be an obligation to intervene as and when appropriate to accelerate or enforce environmental measures. I can't help feeling that many more people than one imagines would be pleased to see this happen if they could see that the results would be beneficial to the environment. Such measures as the requirement for all cars to have catalytic converters and to run on unleaded petrol, have been in existence in some countries for a considerable number of years and the result of ensuring that all manufacturers have to comply with measures of this kind has been to stimulate an inventive capacity to create alternatives. Necessity is very much the mother of invention, but sometimes the necessity has to be engineered by governments as a sensible precaution. From that point of view it is heartening to learn of the Prime Minister's recent statement that CFC's ~~are to~~ ^{should} be replaced in refrigerators on a progressive basis.

As this historic Conference nears its end, there is good reason for pride. If it was human ingenuity that got our remarkable planet into this mess, it will be human ingenuity that gets it out - a new kind of human ingenuity; co-operative, responsible, global. In the last few days we have seen a good example.

We know what we need to do about the ozone layer. Thanks to you, some of it is already being done. At this rate we might cope with the disaster before it happens.

So much having been made so clear, it seems almost churlish to conclude by saying that the ozone layer is only one environmental question among many. The seas are fast becoming sewers. We make poisons so powerful we don't know where to put them. The rain forests are being turned into deserts. If we can stop the sky turning into a microwave oven, we will still face the prospect of living in a garbage dump.

Human beings can be rightly proud of their inventiveness. We thought the world belonged to us. Now we are beginning to realise that we belong to the world. We are responsible to it, and to each other.

Our creativity is a blessing, but unless we control it, it will be our destruction.

Unless we realise that all these problems hang together, so will we.

But thanks to you, we are realising it. Something is being done. And I pray that your deliberations, taken together with the Montreal Protocol, will provide both a foundation on which future solutions can be built and a model for future agreements in other areas of environmental concern.