PREM 19/2657/1

PART II. M.T.

Confidential Filing.

Royal Commission on Environmental Pollution

Effects of Acid Rain
Ozone Layer Conference
Agriculture and Conservation
Climatic Change
PM's Seminar on Global Climate 26 Apr 1989
(Attached folder: Global Climate Change)

ENVIRONMENTAL AFFAIRS.

Part 1: Sept. 1979.

Part II: June 1989.

Referred to	Date	Referred to	Date	Referred to	Date	Referred to	Date
~~7.6.89~~							
~~22.6.89~~							
~~3.7.89~~							
~~4.7.89~~							
~~19/7/89~~							
~~27.7.89~~							
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~~15.10.89~~							
~~31.10.89~~							
~~1.11.89~~							
31.10.89							

PREM 19/2657

PTII ENDS

PART 11 ends:-

DOE to DM. 31.10.89

PART 12 begins:-

CAS to PM. 1.11.89

CSPU
Press

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref: 35454

Your ref :

Dominic Morris Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

31 October 1989

Dear Dominic

GLOBAL CLIMATE CHANGE

Thank you for your letter of 27 October.

I am enclosing as you requested copies of the booklet which will be launched on 2 November. The launch will take the form of a Press Briefing by Mr Heathcoat-Amory.

We have made arrangements with the FCO for copies of the booklet to be available in New York in advance of the Prime Minister's speech on 8 November, and for copies to be circulated widely both in the UK and abroad.

R BRIGHT
Private Secretary

Env Affairs: ACO
Rm
AU

31.10.89 A1

47a/2 pmg.vd/docs/wakeham

CCPS

PAYMASTER GENERAL

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon John Wakeham MP
Secretary of State
Department of Energy
1 Palace Street
Victoria
LONDON SW1E 5HE

31 October 1989

Dear John

GOVERNMENT RESPONSE TO THE ENERGY SELECT COMMITTEE ON THE POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT

I have seen Chris Patten's letter of 20 October commenting on the draft reply which you are proposing to send to the Energy Select Committee on the policy implications of the greenhouse effect.

On two of the points which he raises, I would prefer that it stays as originally drafted or follows the wording of the UN General Assembly speech on which we have written separately to No 10. There is little doubt that targets for CO2 emissions could have a role to play in tackling undesirable climatic change, but there are problems. Firstly, different countries start from different positions and so the ease of reduction is likely to vary substantially between them. They also have very different levels in diversity of energy reserves which makes reductions in carbon emissions easier to achieve for some than others. For these reasons, equal targets are likely to be economically inefficiency in a global sense. The most cost-effective options for reduction should be taken first which would imply different targets for different countries. Furthermore, there will be considerable difficulties in negotiating such targets which may not be deliverable. There is also the risk that we detract from the possible contribution that other measures, such as tradeable emissions permits, might make.

Secondly, Chris Patten suggests that the draft reply adds "The Government will continue to press for the pricing of fuels to reflect their full economic and environmental costs". Whatever view one takes of this issue, I do not think it is appropriate to

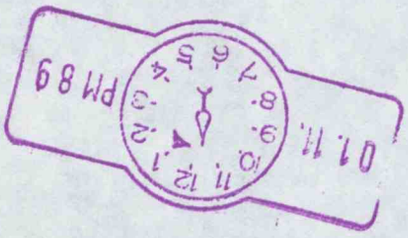
[redacted]wakeham
ENV AFFAIRS: acid Rain PT II.

make a public commitment on this now, when we have not discussed among ourselves the policy implications. It is not clear that we could implement such a policy in the near future, so including it in the reply would mean over-committing the Government. As far as the phasing out of CFCs is concerned presumably this refers only to those covered by the Montreal protocol? If so we should make that clear.

Copies of this letter go to members of Cabinet and Sir Robin Butler.

Yours ever
Malcolm

THE EARL OF CAITHNESS



CS

CF

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

31 October 1989

Dear Roger,

Thank you for your letter of 24 October giving your Secretary of State's advice on a request from Jonathan Porritt to meet the Prime Minister to discuss environmental issues.

The Prime Minister has now decided to take up this invitation and would like to your Secretary of State to be present when she sees Mr Porritt. We shall be in touch very shortly to set up a time.

Yours sincerely,

Caroline Slocock

CAROLINE SLOCOCK

Roger Bright, Esq.
Department of Environment

6

CS.

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

31 October 1989

Dear Mr Porritt,

The Prime Minister has asked me to thank you for your letter of 29 September and for your kind words. I am sorry you have had to wait a while for a reply.

The Prime Minister would be happy to meet you to discuss current environmental issues, as you suggest. We will be in touch with you very shortly to set up a time convenient for you.

Yours sincerely,

CAROLINE SLOCOCK

Jonathan Porritt, Esq.

ccf.C.

THE RT HON JOHN WAKEHAM MP

SECRETARY OF STATE FOR ENERGY

Department of Energy
1 Palace Street
London SW1E 5HE

01 238 3290

Charles Powell Esq
10 Downing Street
LONDON
SW1A 2AA

27th October 1989

CDS 30/x

Dear Charles. Prior

David Hope circulated a paper by the ODA, under cover of his letter of ~~13~~ October, dealing with the idea of paying a service charge on tropical forest areas. The paper makes a number of references to energy in its analysis of cost effectiveness.

The data incorporated in the paper appears to have been drawn from this Department's recent draft interim report to the IPCC subgroup on Energy and Industry. However, there are some errors in the use and interpretation of the data. These undermine the paper's illustrative comparison of the benefits of the proposal against other means of reducing global Carbon Dioxide emissions. However, we are concerned that, whatever the validity of the data, such comparisons are of limited use. It is likely that there are other steps which could be easier to achieve and less costly. The IPCC Working Group on Response Strategies will discuss this question.

We would therefore counsel against pursuing the scheme too rapidly. An early announcement would have repercussions in the IPCC process, and would undermine our general line of only taking action which is cost effective in its own right.

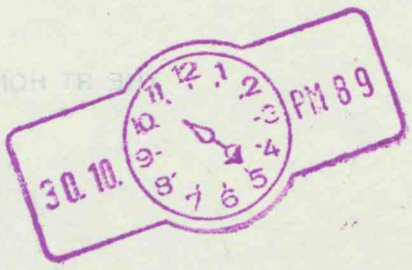
I am copying this letter to David Hope and to the recipients of his letter.

Yours ever,

Stephen.

S HADDRILL
Principal Private Secretary

ENV AFFAIRS. Acid Rain PM1



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a Press

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

27 October 1989

GLOBAL CLIMATE CHANGE

Many thanks for your letter of 25 October with which you enclosed a copy of the proposed factual booklet on Global Climate Change which you propose to publish on 2 November. The Prime Minister has seen the booklet. I should be grateful if you could arrange for some advance copies to be sent here ahead of the launch. You will of course also want to ensure that our representation to the UN have copies available ahead of the Prime Minister's speech on 8 November. No doubt you will otherwise be ensuring a wide circulation for the booklet.

DOMINIC MORRIS

Roger Bright, Esq.,
Department of the Environment.

PO

CCPU letter only

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Prime Minister 2

A good booklet.
I have asked DOE to ensure
a wide circulation
DM

Dominic Morris
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

25 October 1989

MF

Dear Dominic

GLOBAL CLIMATE CHANGE

At their meeting in June 1989 the EC Environment Ministers agreed a resolution on the Greenhouse Effect which included a call for action to inform public opinion. DOE has therefore prepared a factual booklet on Global Climate Change, of which I attach a copy of the final draft for information.

We propose to publish the booklet with appropriate ministerial press briefing on 2 November. This is in the week preceding the Prime Minister's speech to UNGA on 8 November. The intention is that interest in the booklet will provide an opportunity to re-focus public and media attention on the issues involved in time for the weekend press, and prepare the way for the Prime Minister's speech and for the Noordwijk ministerial conference.

Yours sincerely

Roger

R BRIGHT
Private Secretary

NDM R24110

SECRETARY OF STATE FOR THE ENVIRONMENT

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Caroline Slocock
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

24 October 1989

Dear Caroline

Thank you for your letter of 4 October, seeking my Secretary of State's views on the letter of 29 September from Jonathon Porritt, Director of Friends of the Earth (FoE), requesting a meeting with the Prime Minister.

Mr Patten would welcome it if the Prime Minister were able to respond positively to this request. He himself met Mr Porritt and his designated successor at FoE, Mr David Gee, with Professor Tim O'Riordan, who has been advising the group, at the end of September. The meeting was arranged in order to hear at first hand about FoE's thinking on a number of environmental issues, including their proposals for machinery of government changes to reflect the importance of environmental concerns.

While FoE's views on this and other issues do not coincide with the Government's own policies, my Secretary of State nonetheless considers that Mr Porritt is a serious and decent man who cares passionately about the environment, and is not a point scorer. While the Prime Minister would not agree with the measures which FoE wish to see taken, Mr Patten thinks that she would find a discussion with him interesting and thought-provoking. My Secretary of State thinks he is a much more serious interlocutor than any of his peer group in the environmental movement.

Yours sincerely
Roger Bright

R BRIGHT
Private Secretary

44 -

TO: D J FISK, DEPT OF ENVIRONMENT. FAX NO. 01-276-8355.
FROM: DR P WADHAMS, AT SEA "POLARSTERN". FAX NO 00871-1120543.
URGENT - PLEASE DELIVER TO DR FISK TODAY. 2 pages.

Dear Dr Fisk,

Thank you for your letter of 16 October, transmitting the Prime Minister's request for ideas relevant to her forthcoming speech on global environmental issues to the UN General Assembly. I received the letter by fax today aboard this ship, and I enclose a reply as follows.

FS "Polarstern". At sea, Antarctic Ocean. 23 October.
Dear Prime Minister,

Thank you very much for your invitation to submit ideas relevant to your forthcoming speech to the United Nations General Assembly. My office faxed the letter to me today aboard ship, so please excuse the haste of my reply.

In the polar regions today we are seeing what may be early signs of man-induced climatic change. Data now coming in from Halley Bay and from instruments carried aboard the ship on which I am sailing show that we are entering a spring ozone depletion which is as deep as, if not deeper than, the depletion in the worst year to date (1987). It completely reverses the recovery observed in 1988. The lowest recording aboard this ship is 150 Dobson units for ozone total content during September, compared with 300 for the same season in a "normal" year.

In the Arctic we found that in 1987 the sea ice over a large region north of Greenland was significantly thinner than in an earlier survey in 1976, amounting to a 15% loss in average thickness over an area of 300,000 sq km (twice the area of Great Britain). If not a sign of warming this is at least a sign of a radical change in the pattern of surface currents, which normally drive the ice towards the coast of Greenland and pile it into pressure ridges. In the Antarctic we have not found evidence of thinning during our present expedition, but our data confirm that the first-year ice which forms the bulk of the Antarctic sea ice cover is remarkably thin (only 50-80 cm thick) and so is probably unable to sustain a significant atmospheric warming without melting.

Sea ice is a thin and delicate skin separating the ocean from the atmosphere over an area of more than 30 million sq km. It reflects most of the solar radiation falling on it, so helping to cool the planet's surface. If its area were reduced the warming of the Earth would be accelerated due to the extra absorption of radiation by the ocean. Sea ice also takes part in a complex set of interactions with the ocean, including the production of "bottom water" by the sinking of surface water which has been made more dense by the addition of salt from freezing. This sinking carries CO2 into the deep ocean. If this process were to cease the world would lose one of its major oceanic CO2 sinks, again accelerating greenhouse warming.

While the stability of the great continental ice sheets which cover Antarctica and Greenland is not seriously doubted, there have certainly been unusual events recently. Both in 1986 and 1987 there were break-outs of giant icebergs (up to 80 miles long) from the ice shelves in the Ross and Weddell Seas, carrying away a volume of ice many times that normally calved in a year from the entire coastline of Antarctica.

The lesson of these polar processes is that an environmental or climatic changed produced by Man may take on a self-sustaining or "runaway" quality because of positive feedbacks which are not weakened by

countervailing restraints. The effects may therefore be greater than one would expect from the magnitude of the original cause. The change may also be irreversible: an ice cover once removed may be difficult to re-establish, just as the creation of new desert by the expansion of the Sahara may be a process that cannot be reversed.

The polar regions are only one of the "indicator areas" of the world in which the climatic effects of our interference with the environment may be detected. But they are especially important because the magnitude of the warming is expected to be greatest at high latitudes, so that the polar regions may provide the earliest evidence of significant change taking place.

I would like to suggest an idea here. A valuable role which we as a nation could play, in collaboration with the other great scientific nations of the developed world, would be to undertake the monitoring of the climate-related processes and changes which are occurring in the polar regions, in order to take advantage of the opportunity which this early warning offers. The job of monitoring would be a major one, including work on the atmospheric and oceanic circulations, sea ice extent and thickness, changes in ice sheets, and associated biological changes. The whole project could be called a "World Polar Watch", and it would provide unique opportunities for fruitful international collaboration, including an important role for the developing countries of the South. In the Arctic the work of the World Polar Watch would necessarily be carried out by developed nations with scientific interests there, perhaps through the newly-established International Arctic Sciences Committee which would offer new scope for collaborations involving the USSR. In the Antarctic the work could be carried out through SCAR (the Scientific Committee for Antarctic Research) and could involve those developing nations which have joined the Antarctic Treaty system and SCAR but which at present lack an inspiring scientific role. Here the World Polar Watch offers a wonderful opportunity for a genuine unification of effort and partnership between North and South, with a goal which is important to both.

While working down here for the past six weeks I have been conscious that even the Antarctic Ocean is not a dead sea of ice, but is itself full of life - penguins, seals, whales and petrels. The rest of our planet, and the precious life that it contains, may be able to benefit from the vital information that these regions have to offer,

Yours sincerely,

Peter Wadhams

Dr Peter Wadhams.

(2)

The Royal Society

The Norwegian Academy of Science and Letters

The Royal Swedish Academy of Sciences

SURFACE WATER ACIDIFICATION PROGRAMME

Programme Director:
SIR JOHN MASON, C.B., D.Sc., F.R.S.,
Centre for Environmental Technology,
Imperial College of Science and Technology,
48 Prince's Gardens,
London, SW7 1LU

Tel: 01-589 5111 ext. 7203
Telex: 261503, IMPCOL G
Telegrams: IMPCOL. London SW7

18 October, 1989

Dr. D. J. Fisk
Chief Scientist
Department of the Environment
Romney House
43 Marsham Street
London SW1P 3PY

Dear David,

In reply to your letter of 16 October, this is the best I can do in 48 hours.

I have just written a more comprehensive review of the Greenhouse Effect which will be published during the next 3 months. I can send you a typescript if you wish, but you may find this summary adequate.

I sent the Prime Minister a personal copy of the Royal Society booklet on the subject, which she has read. It contained the written evidence we submitted to the House of Lords Select Committee.

Yours sincerely,

John

7

CODE 58.

CONFIDENTIAL

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref: 33170

Your ref:

The Rt Hon Nigel Lawson MP
Chancellor of the Exchequer
HM Treasury
Parliament Street
LONDON
SW1P 3AG

Prime Minister 2

This correspondence is a little long in the tooth (we have only just received Mr Patten's letter, which DOE forgot to copy to you). But you may care to read it as an indication of Treasury and DOE positions on the Pearce report.

Dr Nigel. MT CBS 10/11

20 October 1989

PEARCE REPORT

You wrote to me on 6 October about the report by Professor Pearce.

I can assure you that I do not look upon the Pearce Report as a "philosopher's stone" which will enable us to answer all the questions raised by environmental issues. But Professor Pearce has done us a service in opening up the issues concealed in the concept of "sustainable development". He has raised a number of very important questions which we must address if we are to continue to develop a coherent and positive policy on the environment, the answers to which may lead to some useful general principles.

As you say, our officials must work very closely together on not only the matters raised in the Pearce Report, but also ~~on~~ the proposed White Paper on the Environment, and will obviously do so within the work programme which no doubt will be laid down by the new Ministerial Sub Committee on the Environment.

CHRIS PATTEN

...IMATE COPIES OF THE
...ED LETTER TO:-

1 PS/Mr Trippier
2 PS/Permanent Secretary
3 Mr Burr
4 R Fisk
5 Mr Fletcher
6 Mr Hobson (pps)

TSF: ICB

recycled paper

CEPJ

SECRETARY OF STATE FOR THE ENVIRONMENT

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

The Rt Hon John Wakeham MP
Department of Energy
Thames House South
Millbank
LONDON
SW1

20 October 1989

Dear Secretary of State

GOVERNMENT RESPONSE TO THE ENERGY SELECT COMMITTEE ON THE POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT

Thank you for your letter of 6 October which covered your proposed response to the Select Committee.

My first concern is over timing. My Private Secretary has already told yours that, despite the normal rules for responding to Select Committees, I think it would be a mistake for your response to issue before the Prime Minister addresses the UN General Assembly on 8 November. I am also concerned that your response should not issue before the forthcoming meeting of Environment Ministers in Noordwijk on 6/7 November.

My second concern is that the draft response does not do enough to reflect the lead which the Government has given to international efforts in this field. I attach some specific drafting suggestions to strengthen this aspect of the response.

Para 1.9 of your draft addresses the question of targets for the control of greenhouse gas emissions. We are absolutely right to resist arbitrary reductions targets in advance of the delivery of the scientific evidence to support them. But surely we cannot be so coy as to leave open still the question of whether targets will ultimately be necessary. All of our pronouncements on the Greenhouse problem have indicated that we regard it as a serious matter calling for urgent international action. It seems inconceivable that any international agreement will not in future be based on some global target - probably expressed - in relation to emissions and that signatories to any agreement will have to make undertakings in relation to their contribution to meeting such a target. To refuse to recognise that reality undermines the credibility of our rejection of the arbitrary targets which are being urged on us.

recycled paper

I suggest that the word "yet" should be added to the end of the 2nd sentence in para 1.9 an that the 3rd sentence should be replaced with, "Once the IPCC has reported we hope to have a firmer basis on which to determine appropriate global measures which may well include targets for greenhouse gases and the way in which individual countries should contribute to their achievement."

Finally, I think the tone of the section on energy efficiency needs further consideration if it is not to draw renewed criticism from the Committee. In particular it seems to be insufficient (para 4-7) to respond to the Committee's proposals by the restatement of an argument which they have explicitly rejected. I would prefer to take a more open attitude to their general proposition on the Government's stance on energy efficiency to keep open options for the discussions in MISC 141 and for next year's Environment White Paper.

Detailed drafting points are attached.

I am copying this to members of the Cabinet and Sir Robin Butler.

CE Bosh

pp CHRIS PATTEN

(approved by the Secretary of State and signed in his absence)

recycled paper

Drafting suggestions

Introduction

Para 1. Replace 2nd sentence with:

"The Government has been at the forefront of those who have identified global warming, and associated climate changes as one of the most important issues facing the world today."

Para 3. Replace middle section of first sentence:

"...and the need to develop responses having the support of nations all round the world,..."

(It is of course possible for countries to take helpful initiatives unilaterally where they make economic sense in their own right and we are committed to doing so: see comment on line 9).

in line 6: delete "resolve", insert "reduce".

in line 9: replace existing with "....in the UK's own energy sector, the immediate pursuit of policies which are already justified in their own right and which contribute to an amelioration of the Greenhouse effect." The Government is already committed to taking these steps and to supporting research etc....."

Para 4, last line: delete"preparation" insert "in this work".

(There is some sensitivity internationally to suggestions that the UK is secretly preparing a draft convention to pre-empt discussions. We are not).

Para 5, third indent: insert "more efficient" after "cleaner".

Last sentence to read:

"In addition the Government will continue to press for the pricing of fuels to reflect their full economic and environmental costs and for amendments to the Montreal Protocol to secure the full phasing out of CFC's as quickly as practicable."

Background

Para 1.1 line 6: delete "but" and start a new sentence.

Para 1.2 The first sentence does not fairly reflect the Committee's view, it should be redrafted:

"The Government endorse the Committee's view that the UK is in no sense particularly to blame and that effective action will need to be coordinated internationally."

recycled paper

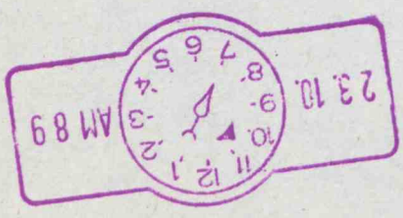
EON Archives Ag & Rural

Para 1.5 Second sentence add after "council," who have a large and growing commitment to research in this area. In addition the Department of ....."

delete 3rd sentence.

Para 1.8 delete 3rd sentence.

(It does not help our case which has to be based on the 2nd sentence.)



recycled paper

47a/2 pmg.vd/murphy

cc DS.

PAYMASTER GENERAL

Treasury Chambers, Parliament Street, SW1P 3AG

David Murphy Esq
Private Secretary to the
Secretary of State
Department of Energy
1 Palace Street
Victoria
LONDON SW1E 5HE

16 October 1989

Dear David,

GOVERNMENT RESPONSE TO ENERGY SELECT COMMITTEE REPORT ON THE POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT

I enclose drafting comments on the reply that you are intending to send to the Energy Select Committee. Our main concern in commenting has been to provide a consistent explanation in the text of when Government action is needed and when the market solution is to be preferred. Our object should be to allow the market to operate freely unless there is some divergence between the private and social costs.

Copies of this letter go to the recipients of yours.

Yours

MALCOLM BUCKLER
Private Secretary

pe1.sc/hg/drft

NOTE OF DRAFTING COMMENTS

Paragraph 3, line 8 - delete "eventually".

Paragraph 1.2, line 2, delete "relatively". Although UK production of greenhouse gases is small, relatively, i.e. relative to other countries, and to our GNP, it is significant.

Paragraph 1.8, delete the 2nd and 3rd sentences. It is not possible to disown commitments the Government made earlier, quite as bluntly as is done in this draft.

Paragraph 2.7, we were a little surprised to read the strong endorsement of wood as a fuel. While it is true that increasing the efficiency of wood burning would be beneficial, substitution towards wood as a fuel is less obviously beneficial, unless it is also associated with improved husbandry.

Paragraph 3.2, if the private sector decided that gas imports were more economic at some point in the next 10 years, we would not have any objection to the proposal for a connection to the European gas grid. We therefore suggest deleting "existing UK gas reserves are sufficient to take us into the next century and" and replace that with "at current gas prices the need for a European connection to allow imports in large quantities is not clear."

Paragraph 3.7, please redraft the second sentence to read "These estimates are being used as the basis for the Department's resource planning for renewables R&D..." We should not refer to the public expenditure negotiations at this stage.

Paragraph 3.8, the second sentence is rather strong. And does not seem to take account of the use of land-fill gas, described earlier in the paper, or of solar panels.

Paragrph 4.1, the effect of measures to promote energy efficiency on our international competitiveness would not necessarily be "profound", for example Japanese experience has been positive. The overall effect on international competitiveness depends on whether price rises are disproportionately in the traded goods sector. At the moment we have no analysis of this point.

Paragraph 4.3, delete the second sentence. This is inconsistent with the explanation of the role of markets given in paragraph 5.2. It is important that a consistent framework is presented in the note in which it is explained that it is only when the market fails to align prices with true resource costs that Government action is justified, for example to internalise external costs. This may involve regulation, but the key point is that Government has to intervene to set the framework within which market forces operate freely. A similar point arises on paragraph 4.7 in the second sentence. Since peoples' rationality is bounded, the Government may need to address divergences between private and social costs, albeit carefully.

Paragraph 5.2 the final sentence appears to be somewhat rhetorical.

Paragraph 5.4, insert "producers' and " before "consumers'".

Paragraph 5.2 the cross reference to paragraph 3.10 should presumably be paragraph 4.5.

Paragraph 5.5, please could we refer here to "proposals for fiscal measures...".

Paragraph 6.3, the final sentence is somewhat tautologous. Significant costs might be economically punitive, but not all measures beyond those currently being pursued would necessarily be so.

MINISTRY OF DEFENCE
MAIN BUILDING WHITEHALL LONDON SW1A 2HB
Telephone 01-218 2111/3

MO 10/15D

16th October 1989

Dear Caroline,

ENVIRONMENT POLICY

My Secretary of State has noted from your letter of 6th October that the Prime Minister plans to set up and to chair a Ministerial Group to develop future plans towards the environment. He attaches considerable weight to the environmental dimension of the Ministry of Defence's policies, which he believes have an important contribution to make to the total picture. He hopes, therefore, that this Department will receive copies of the papers and have the opportunity to contribute fully as work moves forward though he would not wish, at this stage, to press to join the Prime Minister's Group.

I am sending a copy of this letter to Roger Bright (Environment) and to Trevor Woolley (Cabinet Office).

Yours sincerely,

(B R HAWTIN)
PS/S of S

Caroline Slocock
No. 10 Downing Street

ENV AFFAIRS : Acid Rain - Pt 1

FILE
MRM

10 DOWNING STREET

From the Private Secretary

16 October 1989

Dear David,

GOVERNMENT RESPONSE TO ENERGY SELECT COMMITTEE REPORT ON THE POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT

Thank you for your letter of 6 October inviting comments on the Government's reponse. The Prime Minister has seen the draft and noted it without comment.

I am copying this letter to the Private Secretaries to members of the Cabinet and to Trevor Woolley (Cabinet Office).

cc CO HO
MAFF LCO
DOE HMT
SO FCO
WO DES
DTI NIO
LPO MOD
DOT D/H
CST WPSO
D/M DSS
CDL

Yours sincerely,

Caroline Slocock

CAROLINE SLOCOCK

David Murphy, Esq.,
Department of Energy

→ cf.

10 DOWNING STREET

2

Prime Minister

Nigel Corbally Stourton of IBM passed to me this copy of a recent environment speech by Tom Cleaver head of IBM.

The application of the Quality Circle approach to environment (p 10-11) is an interesting angle; and the examples of what IBM is doing in the environment on pages 13-16 are worth a skim.

DM

Some very good points.

SCOTTISH COUNCIL, DEVELOPMENT AND INDUSTRY - INTERNATIONAL FORUM.

28 SEPTEMBER 1989

ENTERPRISE AND ENVIRONMENT: THE REAL AGENDA.

Good morning ladies and gentlemen... it's a pleasure to be able to join you here in Aviemore for your international forum... thank you for inviting me.

Let me say at once that I'm both flattered and intimidated by the prospect before me. Flattered of course, because it's a great honour to be here... but intimidated by the thought of tackling such a huge subject - two subjects - as Enterprise and Environment in some 30 minutes... it's a bit like trying to boil down the Book of Genesis into a catch-phrase.

Perhaps I should start by telling you just what I will try to cover in the next few minutes. At least then, I shall have the excuse that there are large parts of the issue that I never intended to cover anyway.

First: I'd like to examine why the subject of the environment - however you care to define it - is an issue of such significance today.

Second: I want to touch on what for me are the biggest problems at the global level... and then I want to move on to the question of what we as businessmen might be thinking about, and doing. And in that respect, I want to suggest three things: a philosophy, a method and a policy that could be implemented.

And then I'd like to give you a couple of practical examples of environmental enterprise from my own company - IBM - showing how we are addressing some of the problems which in fact all businessmen are facing.

But before all that: just why did I accept your invitation? I'm neither professional environmentalist nor scientist, neither do I work in an industry particularly associated with pollution - although we do have our share of problems as I shall explain.

So why did I agree to speak, and why did I accept the invitation of the Prince of Wales to chair the Business in the Environment Target Team?

There are three answers.

I'm a concerned citizen, and a parent who increasingly wonders what sort of world my son and his family will have inherited when he reaches my age.

Secondly, I'm Chief Executive of IBM UK, and as a British businessman I know that my company depends on a healthy social and economic climate to continue to thrive, and I recognise that business is becoming increasingly global as barriers to trade continue to come down.

I also see an increasing appreciation that environmental problems, too, recognise no boundaries. And I see that the science of economics, the

art of management of which we are all practitioners, and the sciences of the environment are all moving closer together.

So that as we approach the twenty-first century, we are all coming to realise that damage to the environment means damage also to the social and economic fabric of society - the fabric of society on which my business and all your businesses depend.

And thirdly I'm concerned for reasons of enterprise - I see a business opportunity. The information technology industry has a very special role to play in helping scientists interpret just what is happening to our planet and the natural systems which support its life: remote sensing; geographic and climatic modelling; image processing - these tools and techniques to gather, process and manipulate information are increasingly vital to the task of investigating the way our world works.

Those same techniques will be key to the future management of the world's resources, a task which in the future will demand more investment if there is to be any prospect of peace and harmony in a world of more than 8bn in my son's lifetime.

On three levels therefore, I am concerned: as citizen; as businessman operating under a licence from society; and because of the relevance of my industry to the issues.

But the issues are so big. Where does one start? And just why is the subject of the environment so important today?

Quite simply, it's because we know more: because scientists have experimented and measured and studied, and drawn conclusions. Those conclusions have been reported and commented on as never before: the past year or so has seen quite unprecedented media coverage of environmental issues.

Some has been factual. Just a couple of weeks ago, 'The Economist' magazine carried a 28 page survey of environmental economics called 'Costing the Earth', which included incidentally some 14 pages of advertising by companies claiming varying shades of greenness.

Some has been controversial: 'Nuclear flasks on local railway' was a recent headline reflecting a current concern in Edinburgh and the Lothians.

And predictably of course, some has been entirely dismissive: "Greenhouse Defect - it's good after all say U-turn scientists". That was 'Today' newspaper in August.

The concern isn't just reflected in the headlines or on TV. The European elections demonstrated quite clearly the real concern of the voters. Never mind that many people may not have been fully aware of the real implications of the policies for which they were voting; never mind the politicians who seek to dismiss the trends; never mind the north-south differences: the fact is that 12 months ago a 15 percent green vote in the UK was scarcely imaginable.

There's more: you may have seen the survey in 'The Times' which showed how UK environmental organisations now rival the trades unions in both membership and annual income... membership has grown from 1.8m in 1980 to 3.8 million today; income has grown from £38m to £163m today.

And just a couple of weeks ago in the Dutch general election, voters had to decide a question that others all over the world will soon face: how much are they willing to pay for a cleaner environment?

Even the most shortsighted of ostriches in the stickiest of sand can hardly fail to recognise that environmental concern is here to stay: our actual survival is no longer the preserve of alarmists.

"Time" magazine quoted the Book of Ecclesiastes: "One generation passeth away and another generation cometh: but the earth abideth forever".

Perhaps not...

Until recently we have made the assumption that we - and our descendants - would be able to continue pursuing the goal of steady economic progress, of steadily making our lives more comfortable, without disturbing the equilibrium of the world - without upsetting the balance of nature.

'In a very short time that comfortable assumption has been shattered'. That's what Mrs Thatcher said in her speech to the Ozone Conference in March.

That same technological revolution that produced unprecedented levels of economic growth and prosperity for the developed world has also produced immense and growing costs for the planet as a whole: costs in terms of the degradation of our environment; costs in terms of huge risks to human health.

That is the challenge we face - the challenge your forum faces.

It is brought about of course by a whole host of individual but interrelated problems.

The burning of fossil fuels - coal, gas, oil - is building up carbon-dioxide in the atmosphere, which is thought by many to be bringing about the gradual warming of the planet - the conventional wisdom is that the global mean temperature will rise between 1 and 2 degrees by 2030. If this happens, it will affect the world's agriculture; it could mean the melting of the ice-caps; it could bring about a rise in sea levels. No wonder the people of the Netherlands are concerned - their country is not called the Low Countries for nothing. But they're not alone: one third of humanity lives within 40 miles of the sea.

Ozone depletion is no less serious. Depletion of the ozone layer - which filters potentially harmful solar radiation - was first detected in 1985 over the Antarctic. Earlier this year, a similar effect was found over the Arctic. It's caused mainly by the release of chlorofluorocarbons - CFCs - into the atmosphere from industrial processes, from aerosols and from fridges and freezers. The seriousness of this problem is reflected by the Montreal Protocol and the Helsinki Accord which call for urgent reduction in CFC use, and total elimination by the year 2000.

The scientific evidence on both the greenhouse effect and ozone depletion is still far from complete. There is a time lag between cause and effect: the oceans seem to be slow to warm, and CFC gases seem to be slow to affect the ozone shield. But equally, corrective action will be slow to take effect: it's said that even if CFC release were to end today the ozone layer would not return to normal until the second half of the next century.

I've chosen to discuss only those two global issues because time doesn't allow me to do more. There are many other important environmental problems. In many cases they share the common cause of overpopulation and poverty.

Today we share the world with about 5bn people. It's predicted there'll be 6bn by the year 2000; 8bn by 2025. It's thought that population will stabilise at between 8 and 14 billion during the late 21st century: and most of that growth will happen in the third world. The countries which

will house those teeming millions will face - are already facing - enormous pressures to industrialise. Can they possibly follow our example when, as we've seen, our activities have already damaged the world?

I've deliberately skated over the main problem areas. You know what they are as well as I; it may be that today's papers carry news of more research which might slightly alter the conclusions, and in any case there are many books and magazine articles which describe them better than I can.

But let me make one point about that incomplete list of problems. It's this: that - melodramatic as it may sound - the fate of the world will lie to a very large extent in the hands of that majority of mankind we conveniently term the Third World. We in the UK can talk of global issues: but we need always to remind ourselves that we're just 1 percent of the world's population - just 56m people in the whole of the UK; 5m or so in Scotland.

China alone has 1.2bn people today. As we've so tragically seen this year, that country faces enormous demands for improved living standards - for better homes, for cars, for fridges and fly sprays. China has the means to develop - it has fully one-third of the world's known reserves of coal. But what effect on the world could the burning of that coal have? And will all those fridges and fly-sprays use CFCs?

Our national policies won't save the world. But we can set an example: an example of best practice; an example of leadership. That's of vital importance... because leadership is sorely needed.

These then are some of the key issues... it's at this point you may be forgiven for concluding that they're all too big to be solved in Aviemore on this September day. And you'd be right...

On the other hand you could adopt some extreme views, like the green-fundamentalists who eschew all industry and dream of a return to a tribal and pastoral society.

But we are professional managers, familiar with adopting a rational and objective approach to problems... and so it seems to me there are three things we should be doing.

First, we should determine the philosophy of our approach.

Then we should choose a method to enable us to respond effectively. And third we should establish policies which enable us to use that method.

Philosophy; method; policy... and applicable to problems both global and local.

The philosophy, I would suggest is not hard to find.

It was the Brundtland Report - called 'Our Common Future' - that defined the concept of sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." Or, as the economist Professor Pearce put it in his report to the Department of the Environment more recently: "the well-being of today's generation should not be increased at the expense of future generations."

It is a simple aim and a sensible approach: conservation and development must exist side by side... the continuing role of industry in creating wealth, and economic development, are essential if the increasing needs of the world - and the increasing ambitions of its growing population - are to be met.

But if the concept of sustainable development can provide us with a philosophy, just how might we go about ordering our conduct to reflect it?

I believe we can find a model in the standard approaches of the quality movement. No doubt many of you are familiar with these: we have adopted them wholeheartedly within IBM.

In summary, the first requirement is for management commitment. Then the process moves through training and awareness stages to the pivotal stage of measurement - the gathering of accurate data to achieve a proper understanding. In this respect, it's worth noting that the environment

has been poorly served so far: the need for more accurate measurement must be one of the highest priorities for the future.

Having made the appropriate measurements and obtained accurate data, the next stage in the quality programme is to assess failure and concentrate on prevention rather than cure... again, I would argue that this can equally be applied to environmental matters.

Finally, the quality approach requires continuous and rigorous measurement and testing, with results fed back to achieve continuous, incremental improvement.

I have deliberately oversimplified the approach, yet I do believe it is one which could be applied consistently by large and small companies to achieve significant results.

But to achieve any results at all, there is a third prerequisite: the establishment of an environmental policy by every organisation, a policy that is phrased so that it can genuinely be measured over time.

A philosophy; a method; a policy...

I'd like now to spend a few minutes telling you about some of the things we have been doing in IBM.

We have had an environmental policy since 1971, and it can be summarised in these four points:

First, to meet or exceed all applicable government regulations on the environment in all our locations - let me here remind you that we operate in some 130 countries in the world.

Second, to set our own stringent standards if and where no government standards exist.

Third, to use non-polluting and energy-efficient technologies wherever possible in designing products and processes, on the very simple principle that if you don't generate pollution, you don't have to manage it.

And fourth, to help governments and other industries develop solutions to environmental problems wherever our knowledge and experience might be helpful.

Let me show you how this policy is being applied, first at the global level.

I mentioned earlier my conviction that information technology would play an increasingly important part in measuring and managing the environment. It was IBM UK that led the initiative last year to make what is probably the largest-ever corporate donation to an environmental cause. £3.6m worth of data processing equipment and the latest software was donated to the United Nations Environment Programme's Global

Resources Information Database - called GRID. It'll be used in Geneva and Nairobi, with smaller machines in 15 African countries.

This is a complete geographic and environmental information system, which converts data gathered by satellites and other sensors into map form, which is then made freely available.

Data about the geography, geology, vegetation, population and so on, can be assembled and overlaid to give a complete picture. National governments, international bodies, institutions and universities can create an environmental data base to help them understand what is happening in any region or country. And increasingly, GRID is becoming an important tool for economic planning in developing countries.

Reinforcing our commitment to the study of environmental science, in August IBM Europe announced a £10m investment programme for our Scientific Centre in Bergen, making it the international centre for IBM's work in environmental and sustainable development activities.

Now let me give you an example of a specific application of our policy.

Ever since they were first discovered, the electronics industry has been a large user of CFCs. Worldwide we in IBM use about 6000 tons a year, although we do recycle about half.

Since the Montreal Protocol, we have been gradually reducing our use of CFCs with the aim at first of eliminating them completely by the year

2000. I'm pleased to say that we've made good progress: within the last month we've declared our intention to phase out all CFCs in IBM worldwide by 1993.

CFCs are used for many different purposes. Their elimination requires many different approaches.

At IBM Greenock our people have made especially good progress. For instance, we did use CFCs for cleaning machine covers, and replacements for such uses were not too difficult to find - even good old-fashioned soap and water has been found to be effective in some circumstances.

But other uses require great ingenuity - and heavy investment. For instance, one use at Greenock is to clean solder flux from printed circuit boards.

Replacing CFCs with a water-based cleansing process has involved an international effort to develop an appropriate water-soluble flux, and the local development of a multi-stage water-jet washing process and high-speed drying techniques, using a complex arrangement of nozzles to direct warm air between and beneath electronic components.

So it's a matter of great pride for me that I can tell you that from the middle of next year at the latest - apart from use in closed-circuit refrigeration plant - all CFCs will have been eliminated from IBM Greenock.

That's a success story I'm proud of. But I must add a word of caution. As I said, CFCs are used for many different purposes and their total elimination will not happen overnight. The development of new products which don't require CFC cleansing, the design of new processes and replacement cleaners, all this will inevitably take time and will require heavy investment. But it can and must be done.

Having now mentioned our Greenock plant, let me give you another example of concern at the local level.

Many of you will know that the Spango Burn runs through our Greenock site, and that we have taken great care to protect it through all the development which has taken place.

Our Corporate policy requires that environmental impact assessments are carried out before we acquire or dispose of a site. Such surveys result in, for example, all chemical storage tanks having secondary containment facilities, capable of holding one and a half times the tank capacity in the event of leakage. Similarly, all chemical stores and processes are designed to segregate chemicals into small batches to minimise hazards from spills.

And all our chemical stores must conform to three rules: they must be accessible; they must be inspectable; and they must be testable.

Simple rules... though they do of course cost money to implement. But what is the eventual cost of, say, a spillage, compared with the cost of making a tank accessible... of inspection... and of testing?

Allow me one more example, this time concerned with energy conservation.

Our energy conservation policy was established in 1975, and it's now used to set overall targets. The most recent target for us in the UK was set in 1985, and was to reduce our energy requirement by 20 percent by the end of this year.

Our programme to achieve this has been broken down into roughly two parts: the easy things, and the difficult things.

The easy things really are easy: switching-off lights and air conditioning when they're not needed; installing relatively simple energy management systems. For instance at our head office in Portsmouth, the office lights are all switched off at 6pm every evening: this isn't to encourage people to go home! Anyone still working can turn them back on, but in areas that aren't occupied they stay off till the next day.

The more difficult things are those which tend to be more expensive, so they have a longer pay-back period: for example, the installation of high-frequency lighting, increased insulation, building management systems, and so on.

But the combination of measures we've taken has enabled us to beat the Corporate target: by the end of '88 our compound savings amounted to 22 percent, and that'll add up this year to £2.6m.

I hope those examples of the working of our policy serve to demonstrate how environmental concern can be converted into environmental action. It seems to me that the adoption of similar responsible and thoughtful policies shouldn't be too difficult for any business, large or small.

Let me now turn very briefly to the Business in the Environment Target Team that I mentioned earlier. Our first meeting isn't until October, and I don't wish to pre-empt that. But I believe one of the areas we must examine closely is how we might help to develop a pattern of responsible environmental behaviour that businesses could adopt, building on examples of best practice that we can already see emerging. Clearly, there are many possibilities to be examined: the assignment of environmental responsibility at board level; environmental statements in annual reports; the publication of policy; involvement of employees; obligatory environmental assessments prior to land development and so on.

But I hope the Target Team will also want to examine carefully the whole area of environmental economics: when we use man-made assets or equipment or buildings we're careful to write-off that use as depreciation. But we have always made use of our natural resources - coal, fish, the rain-forests, the rivers, the atmosphere - as if they

were free, when in fact they serve the most basic of economic functions: they enable us to live.

However much the Target Team does achieve, I am sure it will help to raise awareness of the issues facing us all at every level in industry.

A philosophy; a method; a policy...

Ladies and gentlemen, you have many eminent speakers to hear: specialists in their respective areas, and with insights of great value on many aspects of the subject. I hope I have been able to provide a backcloth for their contributions.

In all this there is a single certainty: that our continued survival will require us to accept immense changes, and we shall need to look with fresh eyes and with new insight at many of the aspects of life we have always taken for granted as unchanging.

This change in attitude provides huge opportunities for enterprise, because the new form of economic growth - sustainable growth - will demand new products, new methods of production, new services, new means of monitoring... in fact an entirely changed approach to business.

Many companies are already exploring ways to benefit from the new environmental enthusiasm. Some have seen a marketing opportunity for environment-friendly products. Others have realised that they have skills and techniques and expertise which can be sold to companies which

desperately need them. Yet others are realising that they cannot afford to do nothing: Tom Burke, Director of the Green Alliance is talking good business sense when he says that 'Good people don't like working for a company with a bad environmental image.'

The great challenge for the businessman is that these matters transcend the boundaries we are most familiar with... the national boundaries - does industrial development here lead to industrial pollution there?... the economic boundaries - does GNP growth here mean a reduction in total non-renewable resources everywhere?... and the time boundaries - does this quarter's growth shorten mankind's existence on earth?

This, ladies and gentlemen, is the real agenda... it is not enterprise and the Scottish environment... it is not enterprise and the European environment... it is enterprise and the global environment.

We have only one world. It is not disposable.

Nothing could be more apt than your title today... we must have enterprise and environment... or we shall surely have neither...

Thank you.

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

15 October 1989

Dear Myles.

CLIMATE CHANGE: FOREST SERVICE CHARGES FOR CARBON LOCK-UP

The Prime Minister has considered the paper enclosed with your letter of 13 October which examines the idea that Britain should take the lead in proposing that the International Commnity should pay a service charge on existing tropical forest areas in developing countries.

The Prime Minister agrees that some further work should be done on this scheme but is fairly sceptical about it. She thinks it most unlikely that we could arrive at conclusions in time for her to put forward a well thought out proposal in her speech to the United Nations General Assembly. At the most, she thinks that she may eventually be able to propose a pilot scheme for a handful of countries. The Prime MInister has noted that it will probably be a better use of money to offer to pay for forest management in a particular area.

I think, therefore, that it would be right to do further work with all due speed: and if it was possible to achieve interdepartmental agreement on a pilot project before the Prime Minister's speech to the UN General Assembly, well and good. But we should not regard the speech as a deadline by which a proposal has to be put forward at all costs.

I am copying this letter to Bob Peirce (Foreign and Commonwealth Office), Roger Bright (Department of the Environment), John Gieve (HM Treasury), Andy Lebrecht (Ministry of Agriculture, Fisheries and Food) and Trevor Woolley (Cabinet Office).

Yours sincerely,

C. D. POWELL

Myles Wickstead, Esq.
Overseas Development Administration

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PRIME MINISTER

TROPICAL FORESTS

You recall that Alan Walters came up with the idea that the industrialised countries should pay an annual rent per hectare for existing tropical forests, to give developing countries an incentive to stop deforestation.

The idea has now been examined by the Cabinet Office Climate Change Group under Richard Wilson. Their report is attached, together with a minute by Lynda Chalker, and notes by the Policy Unit and the Cabinet Office.

There are a number of practical questions:

- how do you determine the rent? The answer is that, to provide an incentive, it has to be enough to exceed the value of the land in alternative use. The upper limit would be set by reference to the cost of reducing carbon dioxide emissions by an equivalent amount by other means.

- what do you rent? The choice is between renting the entire forest area in a particular country, or only that part of it at risk of being destroyed. The cost of the former is obviously a lot more than the latter. But if you rent only selected areas, then the other areas are more likely to become a target for deforestation: and the whole business of identifying the at risk areas would be cumbersome and contentious.

- how do you avoid a rip-off? The simpler the scheme, the more likely the developing country to make hay at our expense, without doing much to control the rate of deforestation. There would have to be a system of performance contracts, with a steep rate of penalty if forests were not in fact ~~pressured~~ conserved.

- how do you monitor whether the forests are actually being conserved and there is no surreptitious deforestation?

Experience so far with satellites is not very good. Monitoring on the ground would be difficult and would raise questions of sovereignty.

- can developing countries actually control what happens anyway? Some of them - eg Zaire - would find it very difficult: they do not have much idea of what is happening in the remoter parts of their territory.

- can we afford it? It depends what we undertake. The estimate is that if we (United Kingdom) rented 7 per cent of the global area at risk, it would cost us £25 million a year. Over 7 per cent share of a scheme covering all tropical forests would cost us £500 million within a year.

- would developing countries accept a scheme? Well certainly you could not force them, and some might see it as infringing their sovereignty.

- would other industrialised countries join a Scheme? They might: but there are other ways to help eg through direct bilateral aid for forest management: and the countries with tropical rainforests are not all the most deserving in traditional aid terms.

All these are questions which need further thought. For now, the main question is: do you think there is enough merit in the idea to warrant further work, to keep open the possibility of your proposing a scheme at the forthcoming UN General Assembly?

The argument is that you could present it as a major new initiative, which would earn us a great deal of political credit. That is no doubt true. At the least you could propose a pilot scheme for a handful of countries with which we have close links - Ghana, Belize, Cameroon, Nigeria .

On the other hand:

- we have a good record on tropical forestry already, and you can make much of this in the UN speech. You don't have to have an idea.

- the scope for spending an awful lot of money, much of which would be misapplied by corrupt and/or incompetent governments, is pretty considerable.

But I would have thought it was certainly worth further work, before we reach a decision either way. We need an initiative for your UN Speech.

Agree to further work?

C.D.? Yes MT

C. D. POWELL
13 October 1989
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Prime Minister.
(i) This seems to read a lot more work. The range of potential costs is enormous
(ii) It is essential to make payments performance related. Simply paying on the area of forests is bad value. If clearance is 0.8% a year, the government of the country concerned could simply allow the trend to continue unabated and still be collected 92% of the original rent in 10 years time.

AT 13/10

The scheme could not be ready for U.N. To pay for forest management in a particular area is a much better idea MT

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OVERSEAS DEVELOPMENT ADMINISTRATION
ELAND HOUSE
STAG PLACE LONDON SW1E 5DH

Telephone 01-273 0409

From the Private Secretary

Charles Powell Esq
10 Downing Street
London SW1A 2AA

13 October 1989

Dear Charles,

As you will know the Cabinet Office Climate Change Group chaired by Richard Wilson has been considering Sir Alan Walters' ideas that Britain should take the lead in proposing that the international community should pay a service charge on existing tropical forest areas in developing countries. The objective would be to encourage the governments of those countries to take effective action to conserve forests and thereby reduce carbon dioxide emissions. The Prime Minister asked to be kept informed of progress. I enclose a copy of the latest paper prepared by ODA officials in the light of Cabinet Office discussions.

It is intended that the Prime Minister's speech at UNGA on 8 November should focus upon the environment. The FCO and DOE have been asked to coordinate the drafting of the speech. Mrs Chalker is convinced that the speech should include a substantive passage on the importance of conserving and managing tropical forests, both for limiting global climate change and achieving sustainable development in many poorer countries. She believes that we have already secured considerable credit for our forestry initiative and that we should continue to build upon it.

The issue now is whether the Prime Minister wishes further work to be done to develop Sir Alan's proposals with a view possibly to the Prime Minister including it in her UNGA speech. Ministers would need to agree collectively that a scheme were viable and how the public expenditure consequences would be handled.

Mrs Chalker has commented that Sir Alan's basic idea is disarmingly simple. It involves renting forest areas in order to give developing country governments an incentive to reduce deforestation. The incentive to conserve forests should not exceed the cost of locking up an equivalent amount of carbon dioxide through increased energy efficiency. Developing countries could decide for themselves whether the amount on offer was sufficient to compensate them for the opportunity cost of

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maintaining forest areas rather than allow them to be cleared for other, mainly agricultural, purposes.

Mrs Chalker has three main concerns. First any scheme should not involve substantial deadweight expenditure which a government would receive, even if it took little or no effective action to reduce deforestation. She observes that the simpler the scheme the greater the danger of substantial deadweight expenditure. She believes that we should learn from our recent experience, particularly in Africa, in supporting economic policy reform. We have provided balance of payments support only on the basis of strict conditionality and continued good performance.

Secondly, Mrs Chalker is concerned that in many parts of Africa and Asia it is simply not within the power of governments to reduce deforestation in the short term. As is the case with much environmental degradation deforestation is closely related to rapid population growth, putting ever increasing pressure on marginal lands, and rural poverty. In these circumstances it is difficult to see how we might achieve forest conservation without tackling the underlying problems. The answer lies in achieving progress on two fronts simultaneously: agricultural development and sustainable forest management.

Thirdly, it would be very difficult to monitor changes in forest areas in the way required under the scheme.

Mrs Chalker is anxious that the Prime Minister's speech contains something new on forestry. She is content that, if the Prime Minister wishes, officials should do further work to see if, at least for part of the developing world, Sir Alan's idea could be developed to complement longer term assistance. Mrs Chalker believes that the UNGA speech provides an ideal opportunity for the Prime Minister to put fresh political impetus behind the Tropical Forestry Action Plan and to reinforce Britain's commitment to mobilising our tropical forestry expertise which is highly regarded internationally. Mrs Chalker has suggested that the theme of this part of the Prime Minister's speech should be the recapitalising of the world's tropical forests.

I am copying this letter to Bob Peirce, to the Private Secretaries of Ministers whose departments are represented on the Cabinet Office Group on Climate Change, and to Sir Robin Butler.

Yours sincerely,

David Hope.

D J HOPE
(Private Secretary)

CLIMATE CHANGE

FOREST SERVICE CHARGES FOR CARBON LOCK-UP

A. INTRODUCTION

1. This paper develops a proposal from Sir Alan Walters to pay annual service charges to developing country governments to encourage the conservation of their tropical forests. Sir Alan Walters' proposal supercedes Sir James Goldsmith's earlier proposal involving debt: Sir James appreciates this. The objective is to reduce the build up of carbon dioxide (the main greenhouse gas) in the atmosphere by maintaining and enhancing the stabilising influence of tropical forests. The paper considers the potential costs and benefits of such a scheme and its feasibility.

2. Tropical forests are under continuous pressure from a variety of sources. Sir Alan's idea is a simple one: Britain should lead the international community in offering to pay an annual rent per hectare on existing forest areas in order to provide an incentive to developing country governments to change their policies and programmes in a way that would help conserve forest areas. A sufficient incentive should be that the rent exceeds the value of the land in an alternative use (mainly agriculture). An upper limit on what we should be prepared to pay to avoid deforestation would be the cost of reducing carbon dioxide emissions by an equivalent amount by other means.

B. DESIGN

3. The largest areas of tropical forest are concentrated in a small number of countries, including Brazil, Indonesia and Zaire. However, areas of vulnerable forest exist in virtually every tropical country. Although the individual areas may be small their aggregate impact is large. Equally, in the key countries concerned, the majority of their forests are not immediately at risk of destruction.

4. In designing any scheme based upon a rent per hectare, it will be important to decide whether we would offer to rent the entire forest area in any country, or only that part of it that is considered to be at risk of being destroyed. Those areas at greatest risk will, by definition, have a higher opportunity cost in an alternative use. Highly inaccessible areas in the middle of large forest areas are usually not at risk and for the time being have an alternative use value close to zero. If a uniform rent per hectare were adopted which was a sufficient incentive for governments to protect the areas at risk, the cost of a universal approach would be many times larger than for a targetted approach under which only areas designated as being at risk were included. Only if we could devise a scheme by which the rent per hectare reflected the opportunity cost of individual forest areas would the costs of a universal and targetted approach be similar.

5. There is likely to be a trade-off between realising the potential benefits and the degree to which a scheme is targetted. The more a scheme focussed only upon areas of high risk the greater the likelihood that other areas currently not at risk would be deforested instead.

6 The incentive to conserve forest areas would be the avoidance of a decline in rental income over time if

deforestation continues. Developing country governments would have an incentive to conserve only those forest areas whose opportunity cost in other uses (ie mainly agriculture) was less than the rent they would receive. Provided the rent was no more than the cost of locking up the equivalent amount of carbon in other ways, forest land with a higher value in another use would still be cleared, releasing rental payments that could be used to lock up carbon in other most cost effective ways.

7. Any scheme based upon renting forest by the hectare would involve making substantial payments to developing country governments, whether or not, at the margin, forests were conserved. Furthermore, if the annual incremental income loss from continued deforestation was small in comparison to the total rental income received (as might be the case with a universal scheme) not only would much of the expenditure be deadweight, but it might detract from the incentive to take effective action against deforestation.

8. One way of reducing deadweight expenditure would be to offer to rent a forest area en bloc for a given initial annual sum which could be much less than would otherwise need to be the case. The contract would provide for a reduction in the annual rent more than proportionate to the rate of deforestation, thus continuing to provide the incentive to conserve forest areas. This would still involve some deadweight expenditure.

9. While a targeted scheme may be easier to monitor it may prove more difficult to establish and administer. What constitutes an area at risk would need to be defined more clearly for operational purposes. For each participating developing country it would be necessary to delineate the forest areas at risk. Not only would there be scope for honest differences of opinion between professionals, but

there is likely to be considerable haggling between governments. Furthermore, over time, the areas at risk change. A targetted scheme would need to be tailored to the circumstances of each country, and as far as Britain is concerned this could most easily and effectively be done in countries where we have traditional links, eg Belize, Cameroon, Ghana and Nigeria.

10. The only way to eliminate deadweight expenditure would be to enter into a performance contract with a developing country government. Funds would only be paid to the extent that a country succeeded in reducing the rate of deforestation below current levels. The nature of the necessary contract may be difficult to negotiate but would be essential to provide the incentive.

11. Assuming that a scheme were successful in providing a sufficient incentive for governments to reduce or halt deforestation, it would need to continue either until such time as other non-forestry measures had been taken to reduce the threat of global climate change, or until developing countries had an alternative incentive and the means to manage their forests on a sustainable basis.

C. BENEFITS

12. The primary intended benefit of the scheme would be in reducing atmospheric carbon dioxide through sustaining carbon lock-up. Depending on tree density and other conditions the amount of carbon fixed in fast growing trees can be as high as 26 tonnes per hectare per year. When forest land is cleared (other than by commercial logging operations) much of the wood is burnt or left to rot (both of which lead to rapid emission of the carbon dioxide) rather than converted to long-lived products. Rainforest destruction at present levels contributes about 20% of

annual carbon dioxide emissions. It is therefore a significant contributor to the build up of greenhouse gases in the atmosphere. Figures on deforestation in developing countries are given in Annex 1.

13. Mature natural forests lock up substantial amounts of carbon but are not significant net absorbers of carbon from the atmosphere. Absorption by growing trees is roughly matched by emissions from decaying ones. Emissions are much reduced by harvesting mature trees and using the timber in long lived ways (in which the carbon is stored) like construction and furniture. Managing tropical forests in this way, with appropriate protection, regeneration, and planting, can turn then into net absorbers of carbon dioxide for a sustained period. Sustainable management of forests for the benefit of the local economy and the global environment is the objective of the Tropical Forestry Action Plan and ODA's Forestry Initiative.

14. There would be other potential benefits from reducing deforestation. While they do not relate to climate change directly, they are potentially important for other reasons:

a) tropical forests form a natural reservoir which contains at least half of the world's species of plants and animals, about which we know very little. Taxonomists estimate that only one-fifth of forest species have even been properly classified. Preserving forests would provide extra space within which this biodiversity could flourish. Conversely destroying forests would risk making extinct species of which we are not aware, but which could be of major scientific value. Most pharmaceuticals, for example, have natural origins.

b) forests provide a number of important resources for people living at subsistence level in developing countries. These include food, basic tools, and components for building.

c) forests provide environmental benefits to surrounding areas, including retaining soil, controlling rates at which watersheds drain, modifying local rainfall and temperature fluctuations.

15. Any scheme should therefore be seen as complementary to longer term measures to help developing countries manage their forests on a sustainable basis. Whether the potential benefits of the scheme could be realised in a shorter time frame depends crucially as to whether governments have it within their power, and have the institutional and financial capacity, to reduce deforestation within their countries prior to longer term measures taking effect. This is discussed in Section F below.

D. COSTS

16. The scheme would provide for annual retrospective service charge payments to governments, once monitoring reports had been verified. The level at which that payment might be set would require negotiation with the governments of the beneficiary countries.

17. The maximum we should pay is the cost of locking up carbon in alternative ways. This will depend upon the extent to which one seeks to reduce carbon emissions. The Department of Energy estimate that a 20% saving in energy consumption is possible in Britain with existing technologies through investments which are financially

viable and therefore involve no net cost to the economy. This is equivalent to about 35 million tonnes of carbon per year. This amount of carbon could be locked up in forests by reducing deforestation by 250,000 hectares a year. If similar levels of energy savings could be achieved globally (and there is considerable scope to increase energy efficiency in many developing countries) the reduction in the level of carbon emissions that would otherwise take place would be equivalent to about three quarters of the present level of carbon emission from forest destruction.

18. Further ways of reducing carbon emission from power generation would require incurring economic costs, and include switching further to non-thermal power generation. Department of Energy scientists have suggested that the ultimate cost of preventing emission levels increasing with economic growth would be about £20 per tonne of carbon. On this basis, sustaining one hectare of climax rain forest as an alternative would merit an annual rental in the range £160-£240. Until we have a clearer idea of what costs we would be prepared to incur domestically to reduce carbon emission, it is difficult to say how much we should be prepared to pay to conserve forests purely for carbon lock-up.

19. For a scheme to be effective in reducing deforestation the rent must exceed the opportunity cost of retaining land as forest. It is difficult to place an agricultural value on land, not least because it will vary very considerably from area to area. In some parts of the developing world there is a private market in land which provides a basis for assessing land values. Sir Alan has noted that in parts of Latin America land being cleared for agriculture has changed hands for about £30 per hectare. This would imply an annual rental of only £3 a hectare per year.

20. In many parts of the developing world, however, land is little traded, so that price data is not available. In many areas of Africa and Asia the main pressure on forests comes from increasing numbers of poor people needing forest land for largely subsistence purposes. We estimate that in the wet tropics such farmers may achieve an annual income equivalent to as little as £50-£100 per hectare, representing the return to both land and labour. One could in theory rent the land as forest for less by compensating farmers for not encroaching further into forest areas. But it is difficult to make a general estimate of the loss of income to a rural community as a result of increasing numbers of people continuing to farm the same area of land, with declining fallow periods and soil degradation.

21. We also considered what the opportunity cost of land might be under modern cash crop farming. Reliable information on actual returns to land under these conditions would require much more work. However the analysis of World Bank and other project reports provides an indication of expected, and therefore possibly optimistic, annual rental values. They range considerably from £25 per hectare (Indonesia); £38 (Ghana coaoa); £62 (Cameroon); £75 (Costa Rica); to £108 per hectare in Brazil. These high values may not only be optimistic, but will tend to reflect prospective values for that land most suited to agriculture. Less valuable land would not have been selected for agricultural development. Against these values should be set the benefit of forest land, which is tentatively put at £10 per hectare.

22. The cost of any scheme would also depend on the delineation of areas at risk. Rates of destruction vary, as shown in the Annex, but are lower in countries with the most forest. We estimate a figure of 0.8% per annum provides a reasonable approximation. The area at risk of destruction

is greater, as where one plot is protected, adjacent areas will then become at risk. A minimum estimate of the area at risk on this basis could be at least 5%, which represents at least 120 million hectares globally.

23. The maximum cost of any scheme is entirely in our hands. At only £3 per hectare, a targetted rental per hectare scheme (covering 5% of tropical forests) would cost £360 million annually. If, as part of an international effort, we rented 7% of the global area at risk, consistent with our relative economic strength in the OECD, the cost to HMG would be £25 million annually. A universal scheme (covering 100% of tropical forests) would cost the UK £500 million a year, assuming a 7% share. It is very unlikely that this rental would provide a sufficient incentive to affect rates of deforestation. Using returns to land as indicated in paragraph 21, a targetted scheme could cost in the range £2-£10 billion annually, with a cost to HMG of £140-£700 million per annum.

E. MONITORING

24. It has been proposed that satellites could be used to monitor such a scheme. The use of satellites for this purpose is unproven. They could not show areas where selective commercial logging had taken place. Nor would they necessarily detect clearance from some areas of shifting cultivation, which is widely practised. Significant advances to overcome these constraints in the near future would require a concerted effort on accelerated research into forest satellite monitoring in the tropics. In the meantime extensive ground truthing would be required to check the present position in areas at risk. We have consulted the World Bank, who agree that while satellite monitoring is a useful tool it is not sufficient on its own. A Swedish survey of forests in the Philippines using

satellites showed discrepancies of up to 50% in any given area compared to a German survey using aerial photography and ground truthing. Satellite monitoring is however expected to improve significantly over the next five years.

25. Ground truthing on a global scale would be prohibitively expensive. It would also drain scarce skills that might be better deployed in assisting forest management directly.

26. Some recipient countries might be sensitive to the use of satellite monitoring. Images taken in sufficient detail for monitoring purposes could reveal military installations. Such constraints would need to be overcome with diplomacy - but we would clearly not agree to pay a service charge to a country until it had unambiguously agreed to any satellite monitoring and ground truthing we considered necessary. Monitoring of the methods used to achieve conservation might be required to ensure that we did not reward countries which had taken extreme measures against their population to conserve forests.

F. ECONOMIC AND SOCIAL CONTEXT

27. The causes of deforestation need to be considered as part of an assessment of the feasibility of the scheme. At the simplest level it is possible to depict two broad models. In one the primary cause is population growth leading to severe pressure on forest lands. This pressure is exacerbated by the degradation of existing agricultural land which forces people to seek new land. This model applies to much of Africa and parts of Asia. For this model, it would be necessary to develop alternative livelihoods for those who would otherwise destroy forests if such a scheme were to achieve its objectives. Even if governments were able to protect those parts of their

forests which are currently at risk, it is likely that pressure would increase in other areas. It is likely that it would be more effective and cost effective to devote resources directly to activities which take the human pressures off forests rather than paying governments to guard existing forests.

28. A second model is where the primary cause of deforestation is commercial logging or ranching where governments either tolerate or in some cases positively encourage destruction intentionally or otherwise by the policies and programmes they adopt. This might apply to parts of Latin America and some areas in Asia. Here there is scope for encouraging governments to adopt policies to reduce deforestation which might be effective. However it is not clear that in all cases this approach would be cost effective.

Overseas Development Administration
October 1989

ANNEX 1

FOREST AREAS (C.1980)

	Area (Closed Forest and other Woodland) million hectares	Annual Rate of change in area per cent	Average Annual change in area thousand hectares
World	4321	- 0.3	- 12000
All developed Countries	1964	Negl	Negl
of which: UK	2.3	1.1	?
All developing countries	2356	- 0.6	- 12000
of which those where deforestation is greater than 300,000 hectares a year:			
Africa			
Cote d'Ivoire	9.8	- 5.2%	- 510
Nigeria	14.8	- 2.7%	- 400
Zaire	173	- 0.2%	- 347
Asia			
Indonesia	116.9	- 0.5%	- 620
Thailand	15.7	- 2.4%	- 379
Central and South America			
Mexico	48.4	- 1.3%	- 615
Argentina	44.5	- 3.5%	-1550
Brazil	514.4	- 0.5%	-2323
Colombia	51.7	- 1.7%	- 890
Ecuador	19.1	- 2.3%	- 340

These ten developing countries account for about two thirds of the estimated total deforestation in developing countries.

Env Affairs
Acid Rain

MR GRAY

P 03550

GLOBAL CLIMATE: FOREST SERVICE CHARGES

I understand that Mrs Chalker will be minuting the Prime Minister tonight with a progress report on the forestry aspects of climatic change.

2. Her minute will cover a paper by ODA officials which has been discussed in the interdepartmental group which I chair. The paper builds on the proposals put forward by Sir James Goldsmith and subsequently developed by Sir Alan Walters for a scheme under which developed countries would pay service charges or rents to developing countries for the preservation of their forests. The aim would be to give the Governments of the developing countries concerned an effective incentive to reduce or halt deforestation, and make a contribution to mitigating the greenhouse effect.

3. The main question at this stage is whether the Prime Minister wants more work to be done on the scheme, to keep open the possibility that it might form part of her forthcoming speech to the United Nations General Assembly. If so, the Prime Minster will want to ask Mrs Chalker to commission further work and make detailed proposals which she can consider later in the month.

NATURE OF THE SCHEME

4. The scheme which is emerging from official discussions would have the following main elements.

i. Each developed country partcipating in the scheme would identify developing countries with forests which were at risk but could realistically be protected. It would offer to enter into agreements with the Governments of those countries for the preservation of specified areas of forest.

ii. In return for preservation of the forest, the developed country would offer annual payments of "rent" or "service charge". The size of the payment needs further work but would probably be arrived at by negotiation, subject to certain rules of thumb: for example, we would not want to pay more than would be required to achieve a similar reduction in carbon emissions by a different route.

iii. The annual payments would be subject to a steep rate of penalty if the relevant forest was not in fact preserved. For example, if 5% of a forest area was believed to be at risk, 20% of the payment might be abated for each 1% of forest destroyed. This would give recipient Governments a strong incentive to take effective measures against deforestation.

iv. Compliance would be measured by an agreed programme of satellite monitoring, backed up by ground monitoring as necessary. Payments would be made in arrears for each year, when the monitoring data were available.

v. There would be a minimum of other conditions on the money. It might be necessary to impose humanitarian conditions, to ensure that recipient governments did not take repressive measures against local populations. But there would be no conditions, for example, on the use to which the payments were put: that would be a matter for the recipient.

POSSIBLE ANNOUNCEMENT

5. This scheme envisages a concerted programme by a number of developed countries. But any announcement at the United Nations would need to concentrate on what we were prepared to do. The Prime Minister might want to say that the UK proposed to seek agreements with a number of developing countries with which we

have existing relationships, and that we hoped other developed countries would follow our lead. We could not be certain of a favourable response, but a bold lead of this sort might offer the best chance of getting one and would establish us in a leading position internationally.

MAIN ISSUES

6. The Prime Minister will want to consider whether to make such an announcement part of her speech to the General Assembly. Some of the key issues are:

i. the absence of the strings, for instance on the buying of British goods, commonly associated with aid.

ii. how the scheme would relate to the existing Tropical Forestry Action Plan (TFAP). That programme provides specific aid and assistance to third world countries to develop their capacity for sustainable forest management. The new scheme might be presented as a holding measure, complementary to the longer term aims of TFAP.

iii. how third world governments might react to the scheme. The important point here is that no country would be obliged to enter into an agreement if they did not want to.

iv. how other developed countries might react.

Public expenditure implications

7. A scheme would have public expenditure implications. Some fairly substantial figures (several £100m per annum) have been mentioned in official discussions but they could be offset in part at least by reductions in other parts of the aid budget. They are anyway based on the assumption that the UK would want to enter into agreements in respect of 7% of third world forests (roughly our share of developed countries' GDP) and that we would need to pay the net economic costs of leaving potential

agricultural land under forests. These assumptions are probably too pessimistic. The real issue is what deal we could negotiate with third world Governments, and it seems likely that they would accept lower payments than have been assumed. In any case there is no need to enter agreements for a full 7% of forests at the outset.

8. The best approach might be to set aside whatever budget we could afford and seek to negotiate deals which provided the greatest possible benefit within that limit. Since payments would be made in arrears, no expenditure is now likely to be incurred before 1991/92 at the earliest. Nevertheless the costs of the scheme would probably need to be considered in next year's Survey at the latest.

CONCLUSION

9. The Prime Minister will want to consider Mrs Chalker's minute and the ODA paper in the light of these considerations and decide whether she wants further work done towards an announcement in her speech to the General Assembly. The final decision could then be taken when she gets back in the light of further work .

R T J WILSON
13 October 1989

PAUL GRAY

12 October 1989

GLOBAL WARMING - FORESTRY

We should receive a minute for the weekend box from the ODA setting out a scheme which Britain could lead. Although the timing is tight, it would appear possible for the Prime Minister to make some specific statement at her UN speech on 8 November.

The present proposal was born at a dinner conversation between James Goldsmith and Alan Walters. I introduced them in order to test out Goldsmith's idea of linking third world debt retirement to forestry conservation. Walters was opposed to identifying any specific mechanism, such as debt retirement, but agreed with Goldsmith's fundamental tennet that tropical forests have a global economic value. It is therefore appropriate for developed countries to pay something for their maintenance. Both were sceptical of the value of many present aid programmes and would prefer to see the aid budget targetted on specific objectives such as this.

The only real lever we have over the tropical forests is that over 80% of them are in countries which require first world aid in some form. Why not aim at a percentage of aid to be environmentally dependent, starting with the Walters' mechanism for tropical forests? The ODA are nervous of the proposal because it goes against their philosophy of handing out money without strings attached. The Treasury will also be concerned that this must not become some open ended commitment for additional unquantifiable funding.

A major strength of the Walters' proposal is that it recognises that there is an upper limit to the economic value of forest conservation based on the costs of other ways of fixing carbon. For example, increased fuel efficiency will reduce the amount of fossil fuels which are burnt thereby leaving unburnt carbon in the form of coal, oil or natural gas. The marginal cost of this extra efficiency defines an economic limit to the marginal value of an acre of rain forest. It is the recognition that this limit exists which makes the Walters' proposal an economically sensible market-related one. It does not espouse the views of the extreme greenists who believe that tropical forests, or indeed any form of non human life, must be preserved whatever the cost to mankind!

On the basis of GDP share, the UK might take the initiative for say 7% of rain forests. This could relate to a specific country or countries, possibly in Africa, where we have established links. The important thing is that we would announce the initiative before other countries and it would be with a time limit. There would therefore be extreme pressure on other developed countries to follow suit and establish their own rain forest initiatives. The Prime Minister would also steal a major political march by being first.

GEORGE GUISE

CS/-bcc.

Rec 6
11/10

CABINET OFFICE

Qd0019 70 Whitehall London SW1A 2AS Telephone 01-~~233~~ 270 0320

File Ref: ST 140/3

Mr J M M Vereker
Department of Education and Science
Elizabeth House
York Road
London
SE1 7PH

10 October 1989

Dear John

E(ST)(O) DISCUSSION ON EVIRONMENTAL ISSUES

I am replying to your letter of 6 October to John Fairclough. He is in the USA this week, but I have been able to speak to him.

Because your office had been in touch last week in connection with the timing of the E(ST)(O) discussion on environmental issues, before he left John reviewed the possibility of changing the meeting date but did not wish to do so. It is unsatisfactory if you or another senior colleague cannot attend due to commitments elsewhere on 9 November; and I accept there is a need to consult with the Research Concils and that this will take time. In these circumstances we could agree that the absolute deadline for receipt of a DES paper for the meeting is Friday 27 October - but this depends on other contributions arriving by the earlier date. I hope that this relaxation will give you the leeway necessary to produce your paper.

The discussion will continue the dialogue begun at the E(ST)(O) meeting on 16 January by providing an update on progress over the last year and on departments plans for the future. Account will be taken of the new Ministerial groups. It is not the intention at this stage to come to firm decisions on research priorities. Resource constraints will, of course, affect the final outcome on that score.

I am copying this letter to other members of E(ST)(O).

Yours, Roy Walker

C R WALKER

Dr. M. K. TOLBA

24/10

1/31/10

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

10 October 1989

I attach a copy of a letter the Prime Minister has received from Dr. M.K. Tolba of the United Nations Environment Programme in Nairobi.

I should be grateful if you could provide a draft reply to this letter, to reach me by 24 October, please.

I am sending a copy of this letter and enclosure to Bob Peirce (Foreign and Commonwealth Office).

(CHARLES POWELL)

Miss Kate Bush
Department of the Environment

R 9/10.

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

The Duty Clerk
10 Downing Street
LONDON
SW1A 2AA

9 October 1989

Dear Derek

As discussed with one of your colleagues yesterday, I now enclose a letter from Dr Tolba, Executive Director of the United Nations Environment Programme to the Prime Minister which was sent to this Department in error. We will of course provide any advice which the Prime Minister requires on this letter.

Yours

CE Bush

KATE BUSH
Private Secretary

CONFIDENTIAL

SECRETARY OF STATE FOR SCOTLAND

Prime Minister

ENVIRONMENTAL POLICY

I have now seen Chris Patten's minute to you of 27 September and the comments of Kenneth Baker and Nick Ridley.

I would also support his proposal for a White Paper and look forward to being involved in its preparation, particularly in respect of the programme for the future - which will inevitably be the focus for media interest.

I tend to share Kenneth Baker's reservations about the suggested "State of the Environment" report, especially if community-wide comparisons are to be made. In those circumstances there is always a danger of selective figures being taken out of context to the Government's disadvantage. I believe that this is a matter which deserves further consideration and I would suggest that no commitment be given in the statement to the Party Conference.

I am copying this minute to Cabinet colleagues and Sir Robin Butler.

MR

M R

Scottish Office
9 October 1989

EML279M5

CONFIDENTIAL

File

Cab. U.

THE RT HON JOHN WAKEHAM MP

Department of Energy
1 Palace Street
London SW1E 5HE
01 238 3290

Prime Minister

On the whole this is rather stodgy. It is worth looking at the summary (6.1-6.7) and the passages on "the market" (5.1-5.5) in particular.

CAS 13/10

Ms C E J Bush
PS/Secretary of State
Department of the Environment
2 Marsham Street
LONDON
SW1P 3EB

6 October 1989

Dear Kate

GOVERNMENT RESPONSE TO ENERGY SELECT COMMITTEE REPORT ON THE POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT

You are aware that a response is due to the Energy Select Committee's report when Parliament returns. I attach a draft, an earlier version of which was circulated for comments to interested Departments, including your own. My Secretary of State has approved the broad thrust and tone of the draft, and would now be grateful for the views of colleagues.

We would welcome comments by Monday 16 October please, to allow us to submit the final version to the Committee by the middle of that week.

I am copying this to the Private Secretaries of Cabinet Colleagues and to Trevor Woolley.

Yours
David

DAVID MURPHY
Private Secretary

GOVERNMENT OBSERVATIONS ON THE SIXTH REPORT FROM THE HOUSE OF COMMONS ENERGY SELECT COMMITTEE (SESSION 1988-89) ON THE ENERGY POLICY IMPLICATIONS OF THE GREENHOUSE EFFECT.

INTRODUCTION

1. The Government welcomes the Select Committee's report as a valuable contribution both to raising the level of public awareness of the implications of global warming and to the national and international debate on the issue itself. The Government fully endorses the view that the threat of global warming and of consequent climate change is among the most important issues facing the world today. If the changes which some have predicted come about, no individual country or region will be untouched or able to isolate itself from other countries' problems. It represents, therefore, a truly global challenge, and one in which all countries will need to co-operate more than ever before.

2. The Committee's enquiry has illustrated that, although there is a good deal of agreement about the roots of the greenhouse problem and the way it could lead to significant climate change, there remains a wide range of uncertainty about the extent and timing of that change, and almost no real information about the detailed regional climate changes which might follow rises in average global temperature. Global warming may mean changes in sea levels, in the extent and distribution of rainfall, and consequently in patterns of land use, including agriculture. These changes could, at the worst, have devastating effects on the world's geography and ecosystems, and on human economic, social, and cultural life. No single solution seems likely to solve the problem of climate change: a mixture of responses - in energy supply, energy use, and the use of other resources, will in all probability be needed.

3. It is against that background, of major scientific uncertainties, and of the need for any response to have the support of nations all round the world, that the Government must frame its policies and consider the way forward. Action is needed in a variety of areas - scientific research to resolve the uncertainties; in the political arena, international agreement on the seriousness of the problem and, eventually, agreed international action; and, in the UK's own energy sector, the pursuit of policies which will ensure that the problem is not made worse. The Government is already committed to taking those steps which are clearly sensible at the present time, and supporting research and other action which will lead to greater understanding of the problem and more soundly-based response strategies in the

future. These actions cover the responsibilities of a number of Government Departments, all of whose contributions will be needed.

4. The basis for international action will come from the activities of the Intergovernmental Panel on Climate Change (IPCC), organised under the United Nations Environment Programme and the World Meteorological Organisation. The IPCC, whose membership embraces a wide range of nations, including some from the developing world, has embarked on a wide-ranging programme, examining the causes, effects, and possible responses to global warming. The UK is playing a major role in this work, which will, amongst other things, produce better data on which to base future decisions. The UK has also independently proposed at the United Nations a Framework Convention on global warming (which the Committee has welcomed), and is taking a leading role in its preparation.

5. The Government agrees with the Committee's view (Para26 of the Report) that the UK and other developed nations should set an example to the rest of the world, to demonstrate the seriousness of its intent. On the domestic front, the Government is pursuing a number of policies in the nergy sector which will help to deal with the potential threat of global warming:

- programmes for support for energy efficiency and research into renewable sources of energy;

- new requirements for for nuclear and renewables elements in the electricity supply system, under the Non-Fossil Fuel Obligation;

- new incentives for improved efficiency of electric power generation, arising from the privatisation of that industry;

- support for research into cleaner coal combustion.

These policies are considered in more detail in the following paragraphs of the Department's response to the Committee. In addition, the Government's support for global reductions in emissions of chlorofluorocarbons (CFCs) will also have major benefits in reducing their contribution to the greenhouse effect.

DOE insert >

"In addition the Government will continue to press for the pricing of fuels to reflect

6. The Memorandum below sets out the Government's detailed response to the Committee's Report. The headings and paragraph references correspond (unless otherwise indicated) to those in the Report.

1. BACKGROUND

1.1 The Committee briefly explains the origin of the Greenhouse Effect, and its possible implications, and considers, in broad terms, some of the responses which might be made. In general, the Government agrees with the Committee (and much of the mainstream scientific community) that the subject needs urgent attention: but, in the energy sector, the priority is to pursue actions which, while justified in their own right, will also assist in dealing with the greenhouse problem.

1.2 The Government endorses the Committee's recognition of the relatively minor role of the UK in the production of greenhouse gases on the global scale (Para 4). The Committee notes (Table 1) that Carbon Dioxide (CO_2) emissions are generally thought to be responsible for about half of the postulated warming, although such estimates must be treated with caution, since there is as yet no definitive method of distinguishing man-made warming from the various natural cycles. As a later section of the Report explains, there are a number of other greenhouse gas emissions, resulting from a wide variety of human activity - commerce, industry, leisure; and some of the non-energy related ones (such as Chlorofluorocarbons - CFCs) may be more readily amenable to control without significant change to lifestyles or to economic activity than are emissions from the energy sector.

1.3 The lack of firm scientific data on the possible extent and effects of global warming makes it difficult, at this stage, to define the appropriate response to meet a problem whose scale is as yet uncertain. Much scientific work is in progress into the mechanisms and interaction of the oceans, the atmosphere, the biosphere, and the geosphere; but this will take many years to attain any degree of comprehensiveness. Clearly, it would not be right to wait for 20 years or more, until work such as the World Ocean Circulation Experiment is complete: we might then, as the Committee suggests, find ourselves beyond the point of no return. But more data is clearly needed, and it is expected that the preliminary work of the Intergovernmental Panel on Climate Change (IPCC), in which the UK plays a major role, to be reported in its interim report due in 1990, will provide further and expert assessment of impacts and possible responses to allow future policy to be more soundly based than is possible at present.

1.4 Para 12 also discusses the possibility that there may be both winners and losers among countries as a consequence of global climate change. The Government agrees with the Committee that it would not be sensible to base our approach on the possibility of some national or regional benefit for the UK.

1.5 The Committee suggests (Para 20) that much more money should be devoted to R&D into global warming, and that only governments can be expected to fund or co-ordinate this. Research in this area has moved into higher gear, and the vast bulk of the science is international. Although, within the UK, responsibility for this work lies mainly with the Department of the Environment and the Research Councils, the Department of Energy joined quickly with the Department of the Environment to find the funding necessary to help set up the IPCC's Working Group I (on the science of the effect). For such work, funds can be found at short notice, and to the extent needed - more money for this particular project, for example, would not mean any material improvement in the work produced. Much of the energy-related research being undertaken by the Department of Energy (ie renewables, nuclear, energy efficiency, and clean coal combustion) is providing the basis for future emission-curtailment systems, so that response strategies can be initiated more quickly, if they are required.

1.6 The Committee suggests that the UK and its EC partners should devote a sum equivalent to an arbitrarily specified proportion of GDP into global warming R&D (Para 22). While the Government accepts the need for developed countries to provide adequate funding for such R&D, it does not accept that such funding would necessarily be related to some arbitrary proportion of GDP. Effective research requires a bottom-up pressure of sensible ideas, and cannot simply be called into existence by allocating large R&D funds. UK expertise in global environmental research lies in well-defined areas; and it is important that research should remain focussed and goal-oriented, rather than simply expand to mop up all the funding available to it.

1.7 The Government welcomes the Committee's recognition (Para 25) of the seriousness of its intent in relation to the international community, in the proposing of a Framework Convention on global warming. The UK is setting an example to other countries in the systematic way in which it is approaching both the science and the technology of the threat: on the science front, we are supporting and expanding the relevant areas of our national expertise (eg modelling, oceanography); while on technology our continuing support of the nuclear option, extensive promotion of

renewables technologies, the push to repeal the EC Directive on gas burning, and support for tropical forestry initiatives, are all clear positive leads which we hope others would follow.

1.8 There are, as the Committee recognises, a number of difficulties with the conclusions of the Conference Statement of the Toronto Conference on the Changing Atmosphere (Paras 27-39), which proposed a 20% target for reduction in CO_2 emissions. These conclusions were arbitrary, and without substantial scientific rationale. The Conference Statement containing them was drafted with little regard to the discussion which took place during the Conference, which did not formally agree it or adopt it; and the statement was issued some time after participants had dispersed. In any event, such simple percentage targets may not be the best approach, since the circumstances and development of particular countries vary; such targets could have quite different implications for neighbouring countries, let alone those in different continents, and provide no real indication of commitment. The evidence given to the Committee illustrates the wide span of views on the technical practicability of the proposed Toronto targets; and some of the witnesses mentioned too that large social, as well as economic, changes might be required.

1.9 The Government notes the view of the Committee that targets will be a useful measure to judge progress in combatting global warming. The present difficulty is that there is no clear, agreed objective (other than the broad one of reducing the threat of global warming), and targets and intermediate "milestones" cannot properly be set. Through the work of the IPCC we may discover whether, and to what extent, emissions targets might be a useful part of a response. The work of the IPCC, with its United Nations base, its wide range of participation (including countries from the developing world), and its deliberate concentration on proper scientific appraisal, will provide a more thorough and comprehensive view of impacts and responses than was possible at a single event such as the Toronto Conference.

2. CARBON DIOXIDE AND OTHER ENERGY-RELATED GREENHOUSE GASES

Hydrocarbons

2.1 There are still great uncertainties about the quantities of hydrocarbons emitted from various sources. Restriction of such emissions, apart from methane, (ie evaporation from petrol tanks, industrial processes,and solvent evaporation) is more relevant to the control of

tropospheric ozone, and will probably be developed for that purpose. Tropospheric ozone is a minor contributor to the greenhouse effect, and will be controlled for its direct phytotoxic and health effects. Methane control measures are possible through a number of initiatives, including the use of landfill gas and coalbed gas for energy purposes.

Landfill gas

2.2 The development of the UK landfill gas resource is one of the key elements of the Department of Energy's renewable energy R&D programme. The Department has played a pivotal role in the development of this technology, through both its landfill gas R&D programme and nine demonstration projects funded under the Energy Efficiency Office's (EEO) demonstration programme, which has been particularly sucessful at stimulating commercial application of the existing technology. There are now 30 commercial projects in operation with another 28 at the planning and construction stage, utilising landfill gas for heating and electricity generation. It is expected that a significant number of other schemes will be drawn up over the next few years as awareness of the economic and environmental benefits of landfill gas extraction become more widely known.

2.3 The R&D programme is developing the technology further to extract the maximum benefit and utilise the resource to the fullest extent. 29 advanced projects (in addition to those at 2.2 above) are under way or planned, with a contractual commitment of over £5 million.

2.4 A detailed technology transfer plan is being developed for landfill gas, which will further aid the promotion and uptake of the technology. The results of the Department's R&D programme in this area are being disseminated via conferences, technical workshops, seminars etc. In addition, a comprehensive range of promotional literature is now available, directed both at lay public audiences, to raise general awareness about the prospects for landfill gas and other renewables, and at target professional audiences in particular market sectors, to stimulate greater interest in the development of these technologies. These activities will intensify over the next year or two.

2.5 The Non-Fossil Fuel Obligation (NFFO), which is an important part of the Electricity Act 1989, will also provide an enhanced opportunity for the development of landfill gas for electricity generation. There are now around 14 sites generating electricity from landfill gas, with an installed capacity of around 18MW. This is expected to increase to over 26 sites, with an installed capacity of

around 50MW, by 1991. An example of current interest in this area is that shown by NORWEB, who co-sponsored a study by ETSU of landfill gas possibilities (with the "renewables" tranche of the NFFO specifically in mind), and have initiated discussions with Local Authorities and private waste disposal companies with a view to setting up joint ventures to exploit landfill gas, which could, in time, provide perhaps 15-20 MW capacity.

Oxides of Nitrogen

2.6 While, as Para 45 notes, there are emissions of nitrous oxide (N_2O) - which is a powerful greenhouse gas in its own right - from power stations, most N_2O is believed to be of natural origin, and only a small proportion comes from energy facilities. Emissions of nitric oxide (NO) and nitrogen dioxide (NO_2) - which do come largely from power stations and transport, and are known collectively as NO_x - are only indirectly relevant to global warming, although they are involved in the formation of acid rain. Their main greenhouse impact is in the production of tropospheric ozone, and will be controlled as a secondary consideration for that purpose, the prime consideration being to reduce acid deposition. The Government recognises the need for vigorous controls in this area, and is committed to NO_x emissions standards for new generating plant, to substantial cuts in emissions from existing plant, and to a freeze on total emissions, as a result of its agreement to the EC Large Combustion Plant Directive and the UNECE NO_x Protocol.

The Carbon Cycle and Forestry

2.7 The Committee suggests (Para 49) that the Government reassess the possibility of energy forestry as a means of producing energy. On behalf of the Department, the Energy Technology Support Unit (ETSU) has recently reviewed the potential of wood as a fuel, and a report will be published shortly. The main conclusions of the report are:

- wood fuel from forestry wastes can already be supplied to small scale industrial users, predominantly in rural areas. With further development and improvement, the market could be widened;

- energy forestry, both single stem and coppice plantations, can supply wood at £2.00/GJ if developed and managed by farmers;

- simple market penetration models have been used to show that, by the year 2000, the economic potential for wood from conventional forestry could be 0.64 - 1.23 Mtce per annum;

- short rotation forestry could have a short term economic potential of 0.09 - 0.19 Mtce per annum. By the year 2050 this potential could have risen to 0.42 - 2.09 mtce per annum.

As part of the Department's biofuels R&D programme, over 35 projects with a contractual commitment of over £7 million are under way or planned on forestry. These include pilot scale trials, and projects aimed at reducing the uncertainty in the economics and potential contribution from forestry, with the R&D covering both the supply and use of wood as a fuel. The programme is being undertaken in close collaboration with the forestry industry.

2.8 A further review will be undertaken once the results of the present and planned R&D work are available. All the results of the Department's forestry programme will be widely disseminated and promoted, both to the forestry industry and to potential users of fuel wood in industry and commerce.

2.9 The impact of improvements in forestry and wood use in the UK will, however, be limited, due not least to the relatively small amount of woodland remaining here. Of far greater moment is the need to maintain tropical forests, which have a role of global importance in the recycling of CO_2 and in the maintenance of genetic diversity of plants and animals. The Overseas Development Administration (ODA) is responsible for UK policy in this area. Its aims are to support efforts to arrest the destruction of rainforests; to direct more UK overseas aid to encourage the wise and sustainable use of forest resources in developing countries; and to encourage additional forestry research. This involves assistance to many developing countries (eg Cameroon, Ghana, Indonesia, Nepal), with increasing aid expenditure on forestry as part of a new initiative announced by the Prime Minister in October 1988. The first results of this initiative include an offer of up to £40 million of new aid to India for forestry projects (and developement of CFC-free strategies) and the package of measures to assist Brazil announced by the ODA following the then Minister's visit there in July 1989.

Flue Gas Decarbonisation

2.10 Flue gas decarbonisation is a theoretical option for the reduction of airborne CO_2, by removing it from flue gases and disposing of it in some other way. As the Committee notes, this is a very difficult problem, not simply from the point of view of the technology, which has only been tried in small-scale plant; but also because of the problem of disposing of the large quantities of the CO_2, of the order of 5-6 million tonnes annually for each GW of baseload coal-fired power station. The Department has commissioned, via ETSU, studies on the costs of extracting CO_2 from flue gas with a view to using it for enhanced oil recovery and/or injection into depleted North Sea gas wells - these being options which offer reasonable prospects of low leakage back into the environment. The Department will continue to keep under review technological options in this sector.

3. CHANGING THE FUEL MIX

Greater use of Natural Gas

3.1 The Government agrees with the Committee that increased use of natural gas for power generation would help reduce the potential greenhouse problem (Para 68), and welcomes the Committee's endorsement of its stance on the EC Directive on the burning of gas for power generation.

3.2 The Committee recommends (Para 69) that the Government consider favourably any proposition for joining Great Britain to the European gas grid. Existing UK gas reserves are sufficient to take us into the next century, and the need for a European connection to allow imports in large quantities is not seen as a priority. As and when such a development is proposed, it would be considered in the usual way; but it must be for the market to come to a view as to when such a connection might be necessary.

Hydrogen

3.3 The Government accepts the recommendation of the Committee (Para 73) that the potential benefits of hydrogen be reviewed, and is undertaking such a review with ETSU which should be completed in 1990. However, for any impact on CO_2 emissions to accrue from the use of hydrogen, it must be produced (usually using electricity) from a non-fossil source, and, in the UK, these are relatively limited, apart from nuclear or the electricity-generating renewables. In

many uses, the electricity used to produce the hydrogen is likely itself to be the more versatile and efficient fuel.

3.4 The Department is aware of the the joint Canadian/German/EC initiative mentioned by the Committee (Para 73), which is intended to demonstrate the transport infrastructure needed for bulk hydrogen, and its use in vehicles. The gas is to be produced in Canada from hydroelectric sources and shipped to Germany for use in conventional power generation and a public transport bus fleet. While there may not be much new technology involved in the proposal, it should help to illustrate the economics of long-distance transport of hydrogen and its use in sectors such as transport. The Department will keep in touch with developments on the project.

Nuclear Power

3.5 The Government shares the view of the Committee that nuclear power on its own cannot provide the answer to global warming, but that it can make an important contribution to reducing CO_2 emissions from power generation (Para 82). It notes that the Committee intends to investigate fast reactor research in the light of increasing concern about CO_2 emissions and the long-term viability of traditional fission. The Department will, of course, be giving evidence to this enquiry.

Renewables

3.6 The Committee recommends (Para 90) that "the Department should undertake further thorough analysis of the renewable energy sources which could be deployed over the period to 2025 in the UK.." and that "funding of renewables should be increased substantially so that technologies are brought nearer to exploitation." The most comprehensive review of the potential of the UK renewable energy resource was undertaken in 1988, and the results published as Energy Paper 55. Existing programmes are developing the technology and enabling substantial estimates of potential to be produced on an ongoing basis. From time to time, as data become available from the programme, updated estimates will be made and published.

3.7 Energy Paper 55 also included, for the first time, a detailed breakdown of the financial resources required to develop the UK renewable energy resource over the next ten years. These estimates are being used as the basis for the Department's bid for resources for renewables R&D as part of the annual Government expenditure cycle, and will be reviewed from time to time, as more information from the

programme becomes available. For 1989/90, the provision represents a 10% increase in the budget over that for 1988/89. Over £50 million is earmarked for expenditure on renewables R&D over the next three years. It is expected that the existence of the tranche of the Non-Fossil Fuel Obligation reserved exclusively for renewables will provide further impetus to the private sector to invest in relevant R&D, and will give a considerable boost to the prospects for generation from renewable forms of energy in the UK.

3.8 The Committee also suggests (Para 90) that the analysis of renewables should take into account "the advantage of their environmentally benign nature". It should be borne in mind that no energy production is environmentally benign, or even neutral - there is always some impact, which changes the environment in some way. It is true that renewables may have some advantages in the context of the greenhouse effect: but they still have a local, or even regional, impact. The obvious local effects are visual intrusion, noise, and effect on land values: but it is less easy to be certain of the cost of such things as the long term effect of changes to bird habitats, or of the potential costs of changes to local underground water tables as a result of a Severn barrage.

3.9 Proper assessment of environmental factors associated with different energy sources is, however, an important topic, for which methodologies have not yet been fully developed. For this reason, at the request of the Department, ETSU placed in June 1989 a contract with Newcastle University to develop a methodology for assessing the external costs and benefits of energy technologies, and which can be applied across the whole spectrum of such technologies. This work follows on from the pioneering work of Olaf Hohmeyer, whose book "Social Costs of Electricity Production", published by the European Commission, was an important first step in the quantification of external costs of electricity production, covering atmospheric pollution, major accidents, land use, noise, landscape values, employment, depletion,public costs, and subsidies. The first report from Newcastle University is due at the end of 1989.

Coal

3.10 The Government welcomes the Committee's agreement (Para 93) that coal is by far the largest source of fuel resources, both in the UK and in the world, and that we cannot turn our back on that fact. The important issue, then, is to seek cleaner and more efficient ways of burning

that coal so as to reduce the amount needed to produce power, and thereby to reduce emissions of CO_2.

3.12 The Committee mentions the "Topping Cycle", which is a new development which avoids the temperature limitations of the fluidised bed process and enables full advantage to be taken of advances in gas turbine technology. The prime purpose of the "Topping Cycle" programme at Grimethorpe is to take advantage of the existing facilities to test the advanced hot gas cleaning systems which are essential if the full potential of the system is to be realised. A commercial plant would use fluidised bed combustion to consume partially reacted coal from the partial gasification stage; but for this programme, the facility will burn coal to generate hot dusty gases, and the temperature of the gases leaving the hot gas cleaning stage will be raised to the operating level for modern gas turbines by the firing of propane gas as a supplementary fuel. This high temperature gas will be fed to an experimental gas turbine through the hot gas cleaning system. In this way, the ability of the cleaning system to protect the gas turbine will be assessed under conditions similar to commercial operation.

3.13 Detailed discussions between the Department and British Coal (BC) have been taking place since January 1989, with attention focussed on the technical basis for the advanrages claimed for the Topping Cycle and the level of private sector support which might be obtained. These discussions culminated in the Government's decision to provide additional funds for this work, and the Secretary of State's announcement on 24 August of up to £8 million Government support for the £16 milliom Topping Cycle development. BC is confident is confident that the balance of the funding can be found mainly from private sector sources.

3.14 European Community support amounting to around £3.5 million has been secured by British Coal for R&D on the partial gasification stage and other components of Topping Cycle R&D being carried out at their Coal Research Establishment, and BC will seek further such support whenever the opportunity arises. The Government's assistance will help bring Topping Cycle technology to the point where support for a prototype power plant can be sought from the new Community "Thermie" programme which is expected to start in 1990.

4. ENERGY EFFICIENCY

4.1 The Government agrees that energy efficiency measures have great potential for containing CO_2 emissions (Para 102); as the Committee found, however, there are different views on how that potential can best be realised. There is evidence that energy efficiency has in the past been substantially boosted by price rises (particularly in the 1973 and 1979 fuel crises), but the related effects on the economy suggest that price rises as a means of promoting energy efficiency would have profound effects on our international competitiveness.

4.2 In this context, the Committee asked the then Secreary of State, Mr Parkinson, about the relative energy efficiency performances of the UK and Japan (Q.510). While the Report notes the difficulty of making accurate assessments of countries' comparative performances (para 106), it is instructive to consider the impact of Japanese fuel prices. Modelling the effect of such prices on UK energy consumption, using the price elasticities of demand incorporated in the Department's energy demand model, the UK's energy intensity for 1987 would fall from the 0.43 shown in Table 25 to 0.31, compared with 0.26 for Japan (this calculation excludes consequential effects on the economy of the massive price rises). It is clear, therefore, that a large part of the difference between current energy intensities in the UK and Japan is attributable to higher Japanese energy prices, which in turn are due particularly to their lack of indigenous energy resources; we have not attempted to quantify the contribution to the remaining difference of obvious factors such as ambient temperature and dwelling space per head, but they suggest that the underlying levels of energy efficiency would be much more similar if UK prices moved to Japanese levels. As a more direct and local comparison, the UK's energy ratio has improved considerably in recent years against other Member States of the EC, and has been improving twice as fast as the EC average.

4.3 The Government believes in the full market pricing of fuels as fundamental to promoting efficiency in the economy and safeguarding international competitiveness. The efficient working of the market will promote energy efficiency more effectively than Government intervention, however well intentioned. The Government's role is to stimulate the market for energy efficiency goods and services, and to tackle barriers (especially lack of information, but also institutional barriers) to the free play of market forces.

4.4 The Report refers to an apparent relegation of energy efficiency initiatives in the Department's priorities (Para 104). As Mr Parkinson made clear in his evidence to the Committee, the EEO's work has moved on to a new phase, from general advertising and subsidies to focussed dissemination of authoritative information and advice. This is not a relegation of priority; the Government's response to the 4th Report of the Committee sets out the funding changes in detail - and explains that they will not adversely affect progress towards the national improvement in energy efficiency of 20% over ten to fifteen years from 1983.

4.5. The Government agrees with the Committee's view that there are market imperfections in the energy efficiency field (para 107), and the EEO's strategy is directed to improving the operation of the market. Through the Best Practice programme, the EEO will enable people to work out how efficiently they use energy, compared with others in similar situations; it will establish what are the most effective existing and new technologies and energy management techniques in each sector, and disseminate them widely; and it will help the development of new methods of improving energy efficiency. The Government is confident that the work of the Regional Energy Efficiency Officers will ensure that the Best Practice programme reaches the right decision makers at all levels of industry and commerce. In the public sector (para 109, 112), Mr Parkinson announced on 20 July the framework for a campaign within Government Departments to achieve savings rising to £45 million per year (15% of their current energy bill) in five years; this includes the appointment in each Department of a Minister with specific responsibility for energy efficiency.

4.6 The anomalies in the new tariff structure for gas (recorded in para 110) were drawn to the attention of Ofgas who discussed it with British Gas. The Government was glad to learn that British Gas are considering a revision of their tariffs to remove this disincentive to energy efficiency.

4.7 The Report urges a review of strategy and a higher profile and pro-active stance in the promotion of energy efficiency (para 111), a mixture of regulation, penalties and incentives (para 113) including a mandatory labelling system for appliance and domestic buildings (para 115), and incentives to encourage the installation of energy efficiency measures (para 118). The Government believes that, since energy efficiency makes financial sense as well as being environmentally important, it is generally unnecessary to set regulations or to give people other

taxpayers' money to do what they know to be in their own interests. The Government has recognised, through the Homes Insulation Scheme, support for Community Insulation Projects, and its proposed new Home Improvement Scheme, the special position of low-income households, and it continues to recognise this fact.

4.8 The Government welcomes measures designed to reduce market barriers to the take up of cost-effective energy efficiency measures. Under a voluntary agreement concluded early this year, virtually all manufacturers of domestic electric appliances in Western Europe are now providing standard energy consumption information in harmonised form for those appliances which are major consumers of electricity (dishwashers, washing machines, tumble driers, refrigerators, freezers, ovens); in addition, all electrical appliances are marked with their maximum rate of consumption - for appliances such as fires or lamps this is the same as average consumption, effectively an energy label. In this context it is not apparent what benefits would be gained by a mandatory scheme. Also, the trade in domestic electrical appliances is well developed, with many major manufacturers operating from bases in different countries and selling electrical models in different markets: the energy consumption of appliances sold in the UK is generally similar to those sold elsewhere. Special high efficiency freezers are insulated to withstand periods of power failure up to 48 hours and are not cost-effective in terms of energy saving alone - it is the general reliability of electricity supply in the U.K. which makes them unmarketable. The EEO has commissioned a comprehensive survey of the energy efficiency of appliances, covering the various options for facilitating rational choice by providing energy information in various ways, including energy labelling.

4.9 As with appliance labelling, the Government supports the development of home energy audits and labels, but does not regard a mandatory regime for labelling domestic buildings as appropriate. In particular, compelling householders to spend sizeable amounts of money (up to £200) in this way is not justifiable, and a public subsidy is not an acceptable alternative. The Government is continuing to encourage the development of commercially-based home energy labels.

4.10 In relation to transport (paras 121-124), the Department of Transport is concerned with energy efficiency and has promoted improved energy efficiency in road transport by providing publicity and information about the

financial advantages of fuel saving to vehicle owners and operators. This includes:-

- twice yearly publication of official fuel consumption figures for new cars available in the UK. These booklets which are available in showrooms enable new car buyers to compare different models on the basis of results from standards tests;

- advice, included in the above booklets, on which cars can use unleaded petrol and on driving operation and maintenance techniques to enable motorists to make the most of their petrol;

- in collaboration with the EEO, publication of a booklet "Energy Efficiency in Road Transport" which gives advice to commercial vehicle operators on ways of improving fuel economy.

Account is also taken of fuel efficiency in policies on control of emission of carbon monoxide, hydrocarbons, nitrogen oxides and diesel particulates. In Europe the Government has championed an approach to regulating these emissions which would allow the most fuel efficient engines to be used. A European Community Directive now sets state-of-the-art emissions standards for new small cars. These standards will take effect in 1992, and will probably entail the use of three-way catalysts. The Government welcomes the Directive. It will pave the way for tighter standards for all sizes of car, and enable manufacturers to plan their production with those limits in mind. However, while controls involving the use of three-way catalysts will significantly reduce emissions of carbon monoxide, hydrocarbons, and the oxides of nitrogen, they will do nothing to reduce emissions of CO_2. This is a serious omission. In the development of the roads programme, and specifically in the recent Roads White Paper, one of the major objectives is to relieve traffic congestion and hence to improve road transport energy efficiency. Congestion is a major cause of poor energy efficiency, as well as costing industry and motorists dearly in terms of time lost.

4.11 A key Government objective is to investigate the options for reducing the amount of fuel burnt by vehicles. These include many of the options mentioned by the Open University in their evidence to the Committee. They have been given added significance by the concern over global warming from CO_2 emissions. The European Community is committed to looking for ways to reduce these emissions.

4.12 Fiscal incentives (Para 123), both in relation to company cars and to vehicle excise duty, are a matter for the Chancellor of the Exchequer, who bears such questions in mind.

4.13 The Government agrees that there are unresolved environmental questions concerning the burning of aviation fuel at high altitude (Para 124). High altitude pollution monitoring is very costly, but Warren Spring Laboratory is about to embark on a study of aircraft emissions which will include measurements of the greenhouse gases, CO_2 and N_2O at ground levels, and computer modelling of effects at altitude.

4.14 The Government notes the Committee's general welcome for its policy in regard to Combined Heat and Power (Paras 125-129), and will continue to encourage the economic implementation of CHP, and work towards the identification and elimination of barriers which inhibit such development. Section 47 of the Electricity Act places a duty on the Director-General of Electricity Supply to keep CHP under review.

4.15 The Committee recommends (Para 131) the development of methodology for conservation supply curves. The Government has been aware for some time of the approaches described, and the arguments for the development of such methodology. It is interesting as a concept, but in practice there are difficulties in ascribing values to the variables in any model (for example, if demand for energy falls, the exact fuel type and timing of the reduction may be as important as its volume); for this reason, it is not likely that conservation supply curves can be a reliable predictive tool.

5. THE MARKET

5.1 The Committee suggests (Para 134) that market mechanisms unaided would not produce an adequate response to global warming, and that it would like to see "..market forces in favour of moderating demand fortified by the fiscal system, regulatory measures, and incentives." The Government has made it clear (Baroness Hooper's evidence, Question 139) that it does not regard concern for the environment and the operation of free market mechanisms as incompatible. Many free markets operate within a range of given parameters which are set by government intervention, such as regulations on health or safety. But for such intervention to come about in a realistic and useful way, it is first necessary to understand quite well the problem

which is to be overcome and the appropriate means of resolving it: this is difficult, in the present state of knowledege, with the greenhouse effect.

5.2 Current and future energy prices are likely to continue to encourage the efficient use of energy. It is recognised that there are external costs associated with energy consumption which are not fully taken into account by market mechanisms; and the Department is taking steps (Paragraph 3.10 above) to provide a methodology to allow this to be done. However, when that knowledge is gained, and the parameters for appropriate action set - by regulation if that should prove necessary - it is expected that market mechanisms would provide the most efficient means through which a response to global warming can be made. The ability of market mechanisms to force innovation and to influence the behaviour of producers and consumers alike should not be underestimated.

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5.3 The Committee recommends (Para 136) "..that the environmental costs and benefits of all energy technologies should be at the forefront of the Department's thinking in future.." The need for proper analysis of environmental impact is recignised - although, as already mentioned, the methodology does not yet exist for a precise quantification of environmental impact, especially in global terms. The Department's Energy Paper 54 "Energy Technologies for the United Kingdom: 1986 Appraisal of Research,Development, and Demonstration" included an initial assessment of the environmental impact of each of the technologies considered (spelt out in detail in the Background Papers, published as ETSU-R-43). That assessment did not take account of global warming; but it will be reviewed, incorporating the new environmental impact methodology when that is available. The Department has powers under the Electricity and Pipeline Works (Assessment of Environmental Effects) Regulations 1989 to require the production of an environmental impact assessment before granting consent to new large-scale power sources: this allows due consideration of the environmental effects of new plant, but, if tighter national emissions standards are eventually to be required, that would be covered by existing (or revised) legislation on air quality.

5.4 The Committee recommends (Para 138) that "..energy saving be included in the non-fossil fuel component of electricity supply.." and that "..something akin to the non-fossil fuel requirement must be introduced to secure the full take-up potential of CHP." The primary aim of the Non-Fossil Fuel Obligation is to achieve security of supply through diversity of fuel inputs. Energy efficiency and fossil fuel CHP schemes do not fulfil this aim, and have

therefore not been included in the obligation. Electricity from CHP schemes, where the fuel source is non-fossil, contribute to diversity in supply, and will be able to count towards the obligation. As diversity has a cost, it is necessary to legislate to ensure that it is maintained. Measures which improve efficiency, however, such as CHP and energy efficiency, benefit those who implement them. There is no need to legislate for proposals which are in the consumer's own interest to implement.

5.5 The Committee accepts (Para 141) that a simple carbon tax would create problems of acceptability on the grounds that nations would be affected to different extents by virtue of their energy sources rather than their energy consumption, and recommends that the EC should examine the feasibility of fiscal measures which would reflect the costs of global pollution caused by energy production of all types. Such measures would reflect transboundary costs, and not those specific to the nation where the energy production is taking place. It may be that fiscal measures of this kind could arise out of the work that the IPCC is carrying out at present, and which ranges much wider than the EC. The Government will give serious consideration to any recommendations from that forum on this aspect, taking into account both internal and transboundary effects.

6. CONCLUSIONS

6.1 The Committee says (Para 146) that it would be inexcusable if pusillanimity and the inability of governments to plan long term allowed irreversible global warming to occur. The Government fully agrees: the question is what, at the present state of knowledge and international consensus, are the sensible courses of action. The Government has already been able to settle on a number of policies which will help with the problem. Further information, eg from the IPCC, will allow this process to continue.

6.2 The Committee accepts (Para 147) that the present uncertainties surrounding the scale, pace, and consequences of global warming are such as render unjustifiable the immediate introduction of expensive or draconian penalties for CO_2 emissions. It recommends the setting of emissions targets because the "insurance premia" required to achieve them are so modest - although much of the evidence presented to the Committee suggested that the Toronto target of 20% reduction, used for illustrative purposes, would be very difficult indeed to achieve and would even then take many years. The Government believes that, at this stage, the

adoption of targets would be premature, in the absence of adequate information.

6.3 The Committee acknowledges that the Government had been in the forefront of UN activity on climate change (Para 149), and looks for early action to accelerate the adoption of energy supply and demand measures which are inherently economic and which would reduce CO_2 emissions. The Government is pursuing a number of such measures already. To go beyond this, at significant cost to the UK, in the absence of agreed international action, would be both economically punitive and unlikely to have any significant global impact.

6.4 The Committee expresses concern at changes in the Department's R&D budget, and recommends that this should be substantially increased. Recent developments in the Department's budget have been explained to the Committee. The Committee is to conduct a separate enquiry into the fast reactor. Expenditure on renewables is rising, and the Govrnment has announced, as already noted, a substantial increase in expenditure on clean coal combustion research. These areas of research are both ones which carry large potential benefits in terms of global warming.

6.6 Against a background at the time of media speculation and rumour, the Committee recommends (Para 154) the retention of the Department of Energy, to provide a coherent overview across all sectors so as to deal with the likely problems ahead. The Prime Minister has announced that the Department will continue as a separate entity at least for the life of the current Parliament. It should, however, be borne in mind that the Department of Energy is only one of a number of Departments in this particular area: other important roles are played by the Department of the Environment, the Ministry of Defence (via the Meteorologiocal Office), the Foreign and Commonwealth Office and the Overseas Development Administration, and the Ministry of Agriculture, Fisheries, and Food.

6.7 As noted at the beginning of this Memorandum, the Committee's enquiry and Report have performed a valuable service in helping to expose the debate on the greenhouse effect to a wide audience. It is encouraging to note that, overall, the Report agrees that the Government is generally doing the right things; and that the Department's programmes - in their support of nuclear power, renewables, and clean coal combustion - are aimed in the right directions to help combat the threat of global warming. In an area beset with so much uncertainty, there is clearly room for some divergence of views on how quickly and how far to react.

Both the Committee and the Government recognise the great importance of this issue, and the Government will continue, through its support for work via the IPCC and elsewhere, to devote great attention to resolving the uncertainties and developing policies to combat the problem.

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Ministry of Agriculture, Fisheries and Food
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From the Minister

Prime Minister
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PRIME MINSTER

ENVIRONMENT POLICY

Chris Patten copied to me his minute to you of 27 September seeking your agreement to publishing a White Paper on the Environment in the early Autumn of next year and to announce this at the Party Conference.

There is a clear need for the Government to continue and indeed reinforce its publicity on the very real progress we have made in this area. I shall certainly be making this an important element of my own publicity campaign over the coming months. There is of course, a close inter-relationship between many of the policies which are of concern to DoE with those of my own Department. I therefore welcome Chris Patten's assurance that there will be close consultation should the decision be taken to proceed with the White Paper when we shall no doubt have some points to make. It would also be helpful for there to be similar consultation on any announcement that might be made at the Party Conference.

/I must say ...

CONFIDENTIAL

CONFIDENTIAL

I must say that I do share Ken Baker's hesitations about a periodic "State of the Environment" report. I have no objections to issuing such reports as and when they may suit our purposes. But a firm commitment to issuing them on a regular basis could lead us into difficulties which it might be wise to avoid. Should any such report be issued, however it would be important that my Department should be fully involved in the preparation.

I am copying this letter to Cabinet colleagues and Sir Robin Butler.

JOHN GUMMER

Minister of Agriculture
Fisheries and Food
6 October 1989

CONFIDENTIAL

Env Aff – Acid Rain

Rue SLH

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

MR. WOOLLEY
CABINET OFFICE

ENVIRONMENTAL POLICY

The Prime Minister was grateful for Sir Robin Butler's note of 3 October about Mr. Patten's minute of 27 September. You will have seen the letter I have sent to DOE recording the Prime Minister's reactions to the Secretary of State's proposals and her wish to establish a Ministerial group. I also circulated the list of members which was proposed by Sir Robin. You will also wish to know that she has confirmed that she would like the official interdepartmental group chaired by Richard Wilson to continue to support ministers in identifying issues on Government policy.

CRS

CAROLINE SLOCOCK
6 October 1989

chex.jp/mw/4

CONFIDENTIAL

cc Mr Wilson
Cabinet Office
CCPU
ADS

Treasury Chambers, Parliament Street, SW1P 3AG
01-270 3000

6 October 1989

Rt Hon Christopher Patten MP
Secretary of State for the
Environment
Department of the Environment
2 Marsham Street
LONDON
SW1P 3EB

CF
Done
Please ask DOE what they plan to reply / note PM if they wish to send a reply
Done.
7/11

Dear Secretary of State,

I undertook at our meeting on 7 September to let you have some comments in writing on Professor Pearce's report on sustainable development. I attach a note by my officials.

The Report - and some of the material which accompanied its release - conveys the impression that sustainable development is an operational concept. Regrettably, this does not stand up. As parts of the Report honestly admit, there are severe difficulties in the valuation of environmental resources and impacts; often, they cannot even be quantified. This means that laudable-sounding objectives such as measuring sustainable income and taking account of it in decisions are, in practice, unlikely to be achievable in the foreseeable future.

A related point is that the so-called "integration" of environmental concerns into economic decision-making may be much more difficult than the Pearce Report appears to imply. We have to be very careful not to raise false expectations. I fully endorse taking account of environmental concerns; I also endorse making use of market mechanisms wherever these are possible, feasible and consistent with our policy on other issues such as taxation. But far-reaching integration of many aspects of environmental and economic decision making is likely to prove impossible.

The references to taxation, although in general terms, raise very difficult issues, both practical and political. It is very important not to encourage any assumption that future policy is directed towards the introduction of pollution taxes. For one thing, that simply is not the case at present. And although I should be happy to consider any specific proposals put to me, I have to say that there would need to be very forceful arguments for going down this road to offset its potential disadvantages. For introducing necessarily arbitrary pollution taxes would represent a considerable departure from our taxation policy hitherto. And, of course, to introduce any pollution tax unilaterally would merely disadvantage UK industry vis a vis its overseas competitors, without making any significant difference to the greenhouse effect. I am grateful that you have avoided giving credence to such speculation in your comments on the Report. That said, I agree it would be useful for your officials to do some work on marketable permits and pollution charges.

I understand that you and your officials are currently considering how to take forward Professor Pearce's work, beyond a recognition that the issues raised need to be pursued in the OECD and UN contexts. It will be important that the Treasury and indeed other interested departments are fully involved in this. Before further work is undertaken I should like there to be a thorough discussion between our officials, and then for you and I to agree on any future work programme. And it goes without saying that, if colleagues agree to your proposed White Paper, I should expect the Treasury to be fully involved in that too.

I am copying this letter to the Prime Minister.

Yours sincerely,

Moira Wallace

pp NIGEL LAWSON

(Approved by the Chancellor and signed in his absence.)

OFFICIALS' COMMENT ON THE PEARCE REPORT

The Pearce report has raised awareness of the need for incorporating environmental factors in economic decision-making. It puts a helpful case for conducting careful analyses of environmental factors and ensuring that they are put in an economic context. It is also a useful review of the available techniques for the monetary estimation of environmental values.

However, the Report's conclusions underplay the substantial practical difficulties in valuing environmental resources and integrating environmental and economic statistics. The text does acknowledge a number of the problems of valuation - for example, those entailed in environmental accounting, such as the arbitrariness of quality standards. But the Report is over-optimistic about problems such as measuring welfare losses due to pollution and depreciation in the natural resource base. Such statistical exercises can absorb considerable amounts of skilled resources, to little practical benefit. A related cause for concern is the wide range of answers likely to be generated in an attempt to value such environmental resources as forests and wetlands - reflecting probably inevitable difficulties with such techniques as contingent valuation. In this regard, the authors note that "much more work is required to adequately explain" the variability between willingness-to-pay and willingness-to-accept valuations. The Report points to our relative ignorance in these areas.

Perhaps inevitably for a report with such a wide sweep, there is little that appears to be operationally useful for policy formulation. This is implicitly recognised in the recommendations, which are mainly for further research.

Turning to the recommendations themselves, the high priority ones for the preparation of statistics are unpromising. "Sustainable income" is an elusive concept, and it is not clear which of various alternative definitions, if any, should be adopted. Yet

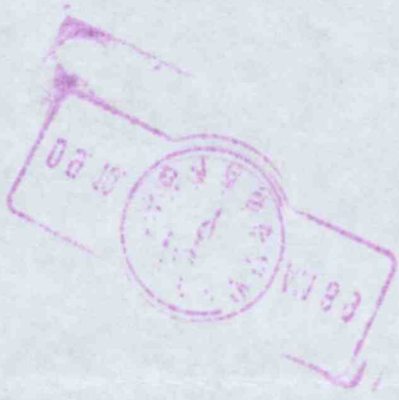
they have radically different implications. "Integrated economy-environment statistics" would be very costly to produce and of doubtful value in practice, given the enormous margins of error to which they would be subject. It is likely to be more productive to focus on major environmental problems (such as global warming and acid rain) case by case, and work through their particular economic linkages.

A second group of recommendations proposes feasibility studies of the use of charges, taxes and marketable permits in selected areas of pollution control. While it might be useful for the Government to do some work on marketable permits and pollution charges, along the lines suggested by Professor Pearce, no encouragement should be given to the presumption that future policy is somehow already directed towards the introduction of pollution taxes.

The remaining recommendations are unlikely to have major economic implications in the short term. Some of these (eg work on how past growth has affected the environment, and on the idea of 'importing sustainability') are for academic research rather than for Government action. Some, such as investigating the effects of the energy and agriculture sectors on the environment, or revising Treasury guidelines, are activities which are in any case in hand to some degree. And some are simply not workable. For example, the recommendation that, for each public expenditure "programme" (not defined) "environment capital in the aggregate" should not be reduced, turns on there being an operational measure of environmental capital. Even if this were the case, which it is not, it is far from clear that this recommendation would be desirable.

To conclude, there is clearly a case for paying more attention to environmental costs and benefits and the Report is helpful in raising awareness of environmental issues and their link with economic decision making. It is a useful contribution to a developing debate. But however theoretically sound many of the Report's arguments may be, it is preferable for Government to

support work which is likely to generate outcomes which are useful in practice. The most cost-effective approach is likely to be to tackle specific environmental issues on their own merits rather than look for new comprehensive policies based on some overall philosophy of "sustainable development".



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10 DOWNING STREET

LONDON SW1A 2AA

6 October 1989

From the Private Secretary

CONFIDENTIAL

Dear Roger,

ENVIRONMENT POLICY

The Prime Minister was grateful for your Secretary of State's minute of 27 September. She has also seen the Chancellor of the Duchy of Lancaster's minute of 3 October, the Secretary of State for Trade and Industry's minute of 4 October and the Secretary of State for Energy's minute of 5 October.

The Prime Minister welcomes the proposal to publish a White Paper on the environment, which she notes he would like to publish in the autumn of next year; and she agrees that the Secretary of State should announce this at the Conservative Party Conference. The Prime Minister considers it important that the White Paper should be eminently readable and should have a strong scientific base. She thinks that it should be accompanied by updated version of the environmental leaflets issued by your Department, which she notes have been well received.

To coordinate the work of Departments in developing future policy towards the environment, the Prime Minister plans to set up and chair a Ministerial Group, details of which are attached. She suggests that Mr Patten should now circulate a more detailed policy paper to colleagues in advance of further work.

Your Secretary of State also suggested that a periodic "State of the Environment" report should be launched next year with the White Paper. The Prime Minister would not want any public commitment to do so to be given before we have a clearer idea of what such a report would look like. She would not therefore wish this to be announced at the Conservative Party Conference, as your Secretary of State proposes.

I am copying this letter to the private secretaries of members of Cabinet and to Trevor Woolley (Cabinet Office).

Yours sincerely,

Caroline

CAROLINE SLOCOCK

Roger Bright Esq.
Department of Environment

CONFIDENTIAL

PM

MINISTERIAL SUB-COMMITTEE ON THE ENVIRONMENT COMPOSITION

Prime Minister
Chancellor of the Exchequer
Secretary of State for Foreign and Commonwealth Affairs
Secretary of State for Trade and Industry
Secretary of State for Health
Secretary of State for Education and Science
Secretary of State for Transport
Secretary of State for Energy
Secretary of State for the Environment
Minister of Agriculture, Fisheries and Food

Terms of Reference:

"To develop future policy towards the environment."

Prime Minister

ENVIRONMENT POLICY

I have seen Chris Patten's minute of 27 September. I agree entirely with him that publication of a White Paper along the lines he proposes will enable us to present all our environmental achievements and policies in a coherent and convincing fashion. Publication in time for the World Climate Conference in October next year will establish our credentials for influencing the direction of that Conference's thinking.

I welcome Chris's offer of consultation over the content of the White Paper. Many aspects will be of direct interest to my Department, including the successful promotion of unleaded petrol and the question of nuclear waste. It will be particularly important to ensure that no damaging uncertainties are raised in the minds of investors in the run-up to flotation of the new electricity companies.

I am copying this to Chris Patten and recipients of his minute.

Secretary of State for Energy

5th October 1989

Jonathon PORRITT

~~30~~/10
18

(1) 2a/10

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

4 October 1989

I enclose a copy of a letter the Prime Minister has received from Jonathon Porritt of Friends of the Earth.

I would be grateful for your Secretary of State's views on what response the Prime Minister should make to this invitation, which she will want to consider at our next diary meeting on 30 October.

(CAROLINE SLOCOCK)

Miss Kate Bush,
Department of the Environment.

dti

the department for Enterprise

PRIME MINISTER

ENVIRONMENTAL POLICY

In his minute to you of 27 September Chris Patten proposes publication of a White Paper on the Environment in the early autumn of next year and, to coincide with this, publication of the first of periodic "State of the Environment" reports.

I support the proposal and the suggestion of an announcement at the Party Conference. As Chris says we need to ensure that our good record on the environment is better understood and appreciated nationally and internationally. We need to demonstrate our commitment to the environment and how, for example, as a Government, we are acting on the need for the environment to be integrated in economic and industrial policies consistent with Brundtland.

A White Paper next year would help, building on the recent efforts to which Chris refers and the presentation of our policies and record during the passage of the Environment Protection Bill. It would also help my department in its efforts to encourage increased business awareness and action on the environment, in particular in setting environmental

Recycled Paper

dti

the department for Enterprise

policy in a forward-looking framework. This will help businesses plan their own responses to the increasing pressures for higher standards.

I am copying this letter to Cabinet colleagues and Sir Robin Butler.

N R

4 October 1989

DEPARTMENT OF TRADE AND INDUSTRY

PE2ACM

Recycled Paper

PRIME MINISTER

ENVIRONMENTAL POLICY

You agreed yesterday that Mr Patten could announce the publication of a White Paper at the Party conference; and noted that he was keen that there should be real drive in all departments to contribute to new thinking. A Ministerial group which you would chair was suggested. You commented that you thought that this was not necessary but said that you would set one up if Mr Patten wishes. I have relayed this message to Mr Patten, who confirms that he thinks it would be useful to have a Ministerial Group, particularly if you would chair it. As Sir Robin Butler mentioned in his minute to you, Mr Patten would also like Mr Wilson in the Cabinet Office to continue to chair an interdepartmental group of officials to support Ministers.

Sir Robin suggested membership of the Ministerial Group as attached. He proposed that other Ministers with an interest might be called on an ad hoc basis. He also thought you would want to consider whether the Lord President and the Chancellor of the Duchy of Lancaster should be included.

We have now received further letters of support for the idea of a White Paper from the Secretary of the Energy and Trade and Industry (attached).

Content:

- to chair a Ministerial group on the environment; Yes
- to the membership proposed by Sir Robin; or do you want to also involve the Lord President and Mr Baker? No
- to retaining the official inter-departmental group chaired by Richard Wilson? Yes

CAS

Caroline Slocock

4 October 1989

BB

Ref. A089/2512

PRIME MINISTER

In his minute of 27 September the Secretary of State for the Environment proposes that the Government should issue a White Paper on environment policy in about a year's time together with a "State of the Environment" report; and that he should make an early announcement, probably at the Party Conference, of the intention to do so.

2. This proposal stems from your discussion with Mr Patten on 14 September. You will probably wish to agree, perhaps making the point that the White Paper would need to have a strong scientific base, be eminently readable and be accompanied by updated versions of the various environmental booklets which the Government has published.

3. Mr Patten raised with me last week the machinery for carrying out this work. He is concerned that there should be a real drive in all departments to contribute new thinking to environmental policy and wonders whether you would be prepared to chair a Ministerial group to keep progress under review. I promised to put this to you.

4. In case you wish to constitute a formal Ministerial group I attach a list of possible members and terms of reference. Other departments with an interest (for instance the Department of Employment) could be invited to attend as necessary. You would also need to consider whether the Lord President and the

Chancellor of the Duchy of Lancaster should be members.

5. Whether you wish to convene a Ministerial group or proceed by ad-hoc meetings, you might wish to invite Mr Patten to circulate a paper setting out in more detail the areas where he thinks policy might be developed. This could form the basis for a Second Reading discussion before work is put in hand.

6. Mr Patten also told me that he would welcome it if the Cabinet Office were to continue to co-ordinate a group of officials to support Ministers in identifying the issues on environment policy. If you agree I will ask Mr Wilson to continue with his group.

R.E.R.B.

ROBIN BUTLER

3 October 1989

KB066

CONFIDENTIAL

Chancellor of the Duchy of Lancaster

PRIME MINISTER

ENVIRONMENT POLICY

I have seen Chris Patten's minute to you of 27th September in which he recommends publishing a White Paper on the Environment in the early autumn of next year. I would strongly support this, it seems to me to be well timed and I think he will need several months in order to get this into good shape.

It is important to pull together all the various initiatives that we have taken in such a complicated area so that the public are much more aware of what we have achieved in the last ten years. In addition to this, there will be measures that we will take in the forthcoming Bill, and no doubt other proposals for further developments in the future. The White Paper should also cover the extensive research into environmental matters by the various Research Councils.

I hope that the White Paper will be presented in a really attractive way, so that it can get a very wide coverage.

I am a little less enthusiastic about a periodic 'State of the Environment' report. We must ensure that this does not become a rod to be laid heavily on our backs. I have in mind the annual report of the HMI on the state of Education. Certainly the White Paper could itself be a 'State of the Environment' report, but I think we should be very wary of announcing any regular series of publications. This may well enflame expectations, some of which we might have some difficulty in meeting.

I am copying this minute to Cabinet colleagues and Sir Robin Butler.

KB

3rd October 1989

CONFIDENTIAL

E.R.

PRIME MINISTER

ENVIRONMENTAL POLICY

The Secretary of State has minuted you (Flag A) proposing:

- that he should announce at the Party Conference the publication of a white paper on the environment in the autumn of 1990;

- that he should also announce an intention to launch next year a periodic "State of the Environment" report.

He also mentions in passing the follow up to the Pearce report and the need to update the Government's environmental leaflets.

I also attach a minute from Sir Robin Butler (Flag B) suggesting:

- that you should stress that the White Paper should have a strong scientific base, be eminently readable and accompanied by updated versions of the environmental leaflets;

- that the Secretary of State should circulate a paper setting out the policy in more detail before further work is set in hand;

- that the Secretary of State would like there to be machinery to ensure there is a real drive in Departments to contribute to new thinking; and proposing the membership of a Ministerial group if you thought that appropriate.

Mr Baker has minuted you (Flag C) giving strong support to a White Paper but expressing doubts about a regular State of the Environment report, lest it become a hostage to fortune. He

would prefer the White Paper itself to be such a report.

Carolyn Sinclair also advises (Flag D) caution on the State of the Environment report. She suggests that a public commitment should not be given until it is clearer what would be involved. But she doubts whether EC pressures for the annual publication of statistics would in any case be easy to resist. Carolyn also helpfully sounds a note of caution about the follow-up to the Pearce Report, which raises complex issues which need to be explored across Departments.

Do you agree:

- to an announcement of a White Paper at the Party Conference for publication in the autumn of the next year;

- to stressing that it should be eminently readable, have a strong scientific base, and should be accompanied by updated leaflets;

- to asking Mr Patten to issue a more detailed policy paper in advance of further work;

- to setting up a Ministerial Group with the membership proposed by Sir Robin (and calling on other Ministers as required but not including the Lord President and Mr Baker);

- and stressing the need for this group to look particularly carefully at the follow up to the Pearce report;

- to expressing caution about the "State of the Environment" report and giving no commitment to publishing one annually until this has been looked into further.

Caroline Slocock
3 October 1989

1

CABINET OFFICE

70 Whitehall London SW1A 2AS Telephone 01-270 0259

From John W Fairclough FEng
Chief Scientific Adviser

W0240

Dr D J Fisk
Chief Scientist
Dept of the Environment
Room A 314
Romney House
43 Marsham Street
London SW1P 3PY

2 October 1989

Dear David,

E(ST)(O) DISCUSSION ON ENVIRONMENTAL ISSUES

A year ago the Prime Minister's speech to the Royal Society signalled Government concern about 'green' issues. In April, the Prime Minister's seminar on Climate Change confirmed the importance of this area of research and indicated that we should build on existing organisations and research strengths. Since then there has been a developing public and political awareness of a broad range of environmental matters and I believe that it is timely for E(ST)(O) to again consider overall activity on environmental issues and Departments' future plans. I would like to do this at the meeting on 9 November.

You will recall that in January the Committee took a look across the board at Departments' interests in environmental issues, and the science and technology aspects of their developing plans and priorities. The aim then was for the Committee:

- to satisfy itself that a coherent approach was being developed;

- to determine the need, if any, for greater coordination at national level;

- to agree the UK input to EC and other international programmes.

I believe that we all found that exercise helpful and I would now like E(ST)(O) to review the progress over the last year. In the light of the conclusions of the Prime Minister's seminar I feel that the above three headings are still important and that we should use these as a basis for gathering information.

Accordingly I am inviting you and copy recipients, in particular John Rae, Ron Bell, John Vereker - on behalf of the Research Councils - and Geoffrey Pope to submit papers (no more than four pages if possible) to the meeting, highlighting progress over the last year on environmental matters and outlining plans in hand for future work. I should be particularly interested to learn of progress made in achieving greater coordination at both Departmental and Research Council level.

Other Departments are welcome to submit papers if they wish to do so. All contributions should reach the Secretariat by Wednesday 18 October.

Yours sincerely,

JOHN W FAIRCLOUGH

Circulation: full E(ST)(O)

cc PS/MOS
PS/PUS
MR GUINNESS
MR PRIDDLE
MR DAVIES
DR FINER
DR HEATHCOTE
MR E PRICE
MR WILCOCK
MR PREMANTLE
DR EVANS
MR MOULD
MR DUXBERRY
MR CANNON
J. RAE

THE RT HON JOHN WAKEHAM MP

Department of Energy
1 Palace Street
London SW1E 5HE
01 238 3149

Dominic Morris Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 0PW

2 October 1989

Dear Dominic

ENERGY POLICY EFFECTS OF GREENHOUSE EFFECT: DRAFT PAPER FOR IPCC

My Secretary of State's predecessor minuted the Prime Minister on 19 May to describe the work which the UK had proposed should be carried out within the work programme of the Intergovernmental Panel on Climate Change (IPCC) on practical options for limiting the emissions of energy related greenhouse gases. This work will be a contribution to the major report on the consequences of the greenhouse effect which will be prepared by IPCC towards the end of next year.

The relevant IPCC working group has asked for an interim report from countries and I attach a summary of the working document my Secretary of State approved for submission. Final reports from countries are expected to be submitted towards the end of the year and the intention is for this Department to improve the analysis and extend it to cover other cases (eg in renewables).

I am copying this to the Private Secretaries to those Ministers who received copies of the minute of 19 May.

Yours
David

DAVID MURPHY
Private Secretary

WORKING DRAFT: SEPTEMBER 1989

REPORT FOR IPCC ENERGY AND INDUSTRY SUBGROUP

UK COUNTRY STUDY

SUMMARY

1.1 This report responds to the remit agreed at the May meeting of the subgroup for countries to prepare reports on possible options which they consider relevant to reducing emissions of energy related greenhouse gases in the period up to 2020, and the costs associated with such options.

1.2 After reviewing the past pattern on CO2 emissions in the UK (Chapter 3) it develops energy scenarios for the UK's energy sectors based on assumptions about possible economic growth and world energy prices provided by the IEA for use in all participating country studies (Chapter 4). These scenarios are used to provide the basis for examination of the impact of different options for reducing CO2 emissions.

1.3 The report then considers (in Chapter 5) some examples from a range of different options to assess their impact on CO2 emissions and possible costs:-

i. energy efficiency concentrating on the domestic sector and CHP

ii. nuclear power

iii. renewable energy (concentrating on wind)

iv. removal of CO2 from flue gases

v. the increased use of gas in electricity generation.

It also considers the effects of increases in cost of energy and the contribution of methane emissions in the UK to the greenhouse effect and options for reduction of this (Chapter 6).

1.4 As the report is interim and incomplete, we are able at this stage only to draw partial conclusions:-

i. energy efficiency can play a major role in reducing CO2 emissions without additional cost, but the achievement of the savings depends on the actions of a large number of individual consumers which the Government's influence is limited;

ii. expanded nuclear power programmes could also reduce CO2 emissions without very great economic penalty - but of course there are other non-economic difficulties;

iii. renewables can play a cost effective role in reducing CO2 but their contribution is likely to be limited to only a very small proportion of total CO2 emissions;

iv. the removal of CO2 from conventional coal fired power stations could also play some role in reducing CO2 emissions, but the costs are very high and the need to build up experience of such plant could limit the scale of its contribution.

v. there is considerable scope for saving CO2 emissions in the early years by a rapid increase in the use of gas for electricity generation. Towards the end of the period, the scope is less as the system may well have developed into increased reliance on gas (dependent on its price) and thus reducing the headroom for further CO2 savings.

Friends of the Earth

The Right. Hon. Margaret Thatcher MP
10 Downing Street
London
SW1

29th September 1989

Dear Mrs Thatcher,

It was a great privilege to meet you on Monday at the Good Housekeeping Awards Ceremony, and I felt immensely honoured to be in such distinguished company. Thank you too for your own kind words.

I hope you don't mind me seizing the opportunity to ask whether it might in any way be possible to snatch half an hour of your time to hear more of your thoughts on how best to address some of today's environmental issues.

Your contribution to this crucial debate has been very significant, and we are greatly encouraged by your own personal efforts to keep environmental issues so high up the political agenda.

I would much appreciate the chance to share some ideas with you.

Yours sincerely

Jonathon Porritt
Director

HELP THE EARTH FIGHT BACK

26-28 Underwood Street London N1 7JQ Telephone 01 490 1555 Fax 01 490 0881

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D

D

PRIME MINISTER

28 September 1989

ENVIRONMENT POLICY

1. Chris Patten has minuted to you proposing

(i) to publish a White Paper on the Environment in the early autumn of 1990; and at the same time

(ii) to issue the first of a series of reports on the "State of the Environment" in the UK.

He would like to announce both publications at this year's Party Conference.

White Paper

This would include:

(a) a statement of the Government's overall philosophy on environmental matters;

(b) factual material including success stories and problem areas;

(c) a list of the Government's actions (eg Wildlife and Countryside Act, creation of a single Pollution Inspectorate);

(d) pointers to the future, including global issues such as climate change, the Government's ideas on economics and market mechanisms, and the need to integrate environmental considerations into economic and industrial policy.

Comment

The idea of a White Paper which would spell out the Government's approach to the environment and list its achievements is a good one. Because the subject is diffuse, and the many environmental pressure groups so active in their criticisms, a comprehensive statement of the Government's actions and views is badly needed. The Department of the Environment's excellent booklets "Environment in Trust" go some way to meeting this need, but they do not have the authority of a White Paper.

There is one point to note on the proposed scope of the White Paper. Chris Patten suggests setting out the Government's ideas on economics and the environment. This is Pearce Report territory.

The messages in the Pearce Report need very careful thought eg

- Pearce argues that the Brundtland Commission view that it is not necessary to trade off environment and development is simplistic. Some trade-offs will need to be made.

- He also argues that if we value the environment, we must be prepared to see prices adjusted to reflect the environmental costs of production.

- Environment policy is going to cost more if we are really serious about controlling acid rain and global warming.

These messages raise two questions:

(a) Are we - and other countries - prepared to pay the higher prices implied by the Pearce proposals?

(b) Even if we are, can we work out acceptable ways of "pricing" the environment; and would we be prepared to accept mechanisms such pollution taxes and tradeable pollution permits?

Policy on these matters cannot be made by the Department of the Environment alone. They must draw in others - particularly the Treasury - at an early stage in formulating the Government's views (let alone setting them out in a White Paper).

State of the Environment Report

Chris Patten appears to have in mind a jazzier presentation of the kind of material we publish in the "Digest of Environmental and Water Statistics".

Comment

Chris Patten's proposal could be useful. It would show that the Government felt that it had nothing to hide. As with all regularly published statistics, there is a risk that the figures could at times be a rod for the Government's own back. Against this

- the figures are mostly published already, albeit obscurely;

- the pressures to collate and publish environmental statistics in the EC will be hard to resist (Chris Patten does not think we should even try).

Timing

But though the benefits of periodic reports (probably annual) on the environment will almost certainly outweigh the risks,

you may not want Chris Patten to announce the decision to launch "State of the Environment" reports until we have a clearer idea of what they would look like. Announcing the White Paper alone should make quite an impact at the Party Conference.

Conclusion and Recommendations

- Agree that Chris Patten should publish a White Paper on the Environment in about a year's time;

- But stress that the line on environment and economic policy will need to be considered and developed collectively;

- Agree that Chris Patten should prepare "State of the Environment" reports; but

- Ask him to delay announcing this until we have some idea of what such a report would look like.

CAROLYN SINCLAIR

CONFIDENTIAL

PRIME MINISTER

ENVIRONMENT POLICY

I seek your agreement to the Government publishing a White Paper on the Environment in the early autumn of next year; and to my announcing this at the Party Conference.

The environment is now prominent in both the UK and on the international political agenda. We are under heavy pressure to do more, in an area where it is clearly impossible to satisfy the extremists. Contrary to much public opinion both here and abroad our record is a good one, and great efforts have been made in recent months to publicise it - for example through the 'Saving the Ozone Layer' Conference and the 'Environment in Trust' leaflets. But inevitably our commitment to sound science and economic sense can all too readily - though wrongly - be represented as foot dragging.

In the short term I am confident that the general policies we are pursuing will enable us to get our message across effectively. I have in mind particularly the forthcoming Environment Protection Bill, which will give us a good Parliamentary platform; the follow-up to Professor Pearce's report on the economics of the environment; and our global activities especially on climate change. We must also, in the coming year, keep our environmental leaflets - which have been well received - updated.

But having now taken stock of where we have got to, I am convinced that we must work towards a more comprehensive presentation of our policies if we are not to be unnecessarily upstaged by our opponents. I believe that we must make a rational and coherent statement of policy, which would enable us both to set out our achievements and to develop a programme for the future. Such a statement would be an effective Parliamentary instrument, would spike one of the Green lobby's guns and might serve - depending on how things develop and subject to other legislative priorities - as a precursor to further legislation.

CONFIDENTIAL

I would see a White Paper setting out:-

a. the overall philosophy of the Government on environmental policy (sound science, good economics, precautionary approach where necessary, polluter pays principle, sustainable development, separation of regulator from regulated, wish to build on existing institutions);

b. factual material on the current state of the environment, with particular reference to success stories and problem areas;

c. a clear account of our achievements so far (eg. Wildlife and Countryside Act, Her Majesty's Inspectorate of Pollution, North Sea Conference, Large Plants Directive, cleaning up car exhausts, integrated pollution control, waste policy, litter, water privatisation, National Rivers Authority);

d. some pointers to the future (eg. global issues such as ozone layer and climate change, commitments already in European Directives, our ideas on economics and market mechanisms, the need to integrate the environment into economic and industrial policy, the role of the consumer and of the individual).

In terms of timing, there is a lot of work to do if this is to be the substantive document I have in mind. It would be sensible to give ourselves time for policy development and consultation with the many colleagues who, I recognise, are closely interested. This points to publication about this time next year, which would also fit well with completion of the passage of the Environment Protection Bill through Parliament. But I believe that I should make an early announcement of our intention to issue a White Paper in order to maintain the political initiative, although of course I would want to do it in such a way so as not to pre-judge or

CONFIDENTIAL

pre-empt decisions which are the prime responsibility of other colleagues. The Party Conference is the obvious platform from which to make such a statement of intent.

I suggest that at the same time it would be right to announce an intention to launch next year - probably for publication at the same time as the White Paper - a periodic "State of the Environment" report. This will fit in well with the current EEC discussion on a European Environment Agency to collate Environmental information on all the member states. (In my view we have nothing to lose and much to gain from a comparison of community-wide environmental data which we would insist should be collected on a strictly uniform basis.) In preparing our own Environmental statement, we could build upon the excellent but low key annual Departmental "Digest of Environmental and Water Statistics", perhaps expanded to provide an appropriate science base for the assessment. We would of course need to look closely at the balance between a White Paper and a first environmental report.

I am copying this minute to Cabinet colleagues and Sir Robin Butler.

CHRIS PATTEN

27 September 1989

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

25 September 1989

Dear Roger,

PUBLICATIONS ON INTERNATIONAL ENVIRONMENTAL ISSUES

The Prime Minister was most grateful for your Secretary of State's minute of 21 September and for a sight of the two publications being published to coincide with the United Nations/Economic Commission for Europe Workshop.

I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), John Gieve (HM Treasury), Neil Thornton (Department of Trade and Industry), Stephen Haddrill (Department of Energy), Clive Norris (Department of Employment), Stephen Crowne (Department of Education and Science), Brian Hawtin (Ministry of Defence), Roy Griffins (Department of Transport), Shirley Stagg (Ministry of Agriculture, Fisheries and Food), David Crawley (Scottish Office), Stephen Williams (Welsh Office), Stephen Leach (Northern Ireland Office), Myles Wickstead (Overseas Development Administration), Malcolm Buckler (Paymaster General's Office) and Trevor Woolley (Cabinet Office).

Yours,
Paul

PAUL GRAY

Roger Bright, Esq.
Department of the Environment

SECRETARY OF STATE FOR THE ENVIRONMENT

PRIME MINISTER

I enclose two useful publications on international environmental issues. We are putting them out this week to coincide with a United Nations/Economic Commission for Europe Workshop we are hosting at Selsdon Park which will examine public awareness of environmental issues. The Workshop, which will be attended by representatives of some 30 Economic Commission for Europe countries as well as organisations like the OECD, is planned to make an important contribution to the Ministerial Conference on Sustainable Development that the Norwegian Government is to hold in Bergen next May.

The leaflet 'One World' is part of our successful Environment in Trust series. It will be widely circulated in this country, particularly to schools, and of course abroad.

"Sustaining our Common Future" is a report on the progress made in the UK towards implementing the recommendations of the World Commission on Environment and Development in the Brundtland Report. It demontrates clearly the many concrete steps we are taking towards putting the environment and in particular sustainable development at the heart of our policies.

Copies of the letter and enclosures go to John Major, Nigel Lawson, Nicholas Ridley, John Wakeham, Norman Fowler, John MacGregor, Tom King, Cecil Parkinson, John Selwyn Gummer, Malcolm Rifkind, Peter Walker, Peter Brooke, Lynda Chalker and also to Malcolm Caithness (who played a major part in the preparation of these documents) and Sir Robin Butler.

CP

21 September 1989

UNITED NATIONS ENVIRONMENT PROGRAMME
PROGRAMME DES NATIONS UNIES POUR L'ENVIRONNEMENT

UNITERRA NAIROBI
333930 or 520600
Fax (2542) 520711
Tx 22068 UNEP KE

P.O. Box 30552
Nairobi, Kenya

Your Reference

Our Reference

14 Septemebr 1989

Dear Mr. Permanent Representative,

As Dr. Tolba told you during the meeting he held with you and affirmed during the Permanent Representatives meeting, he has now written to the Summit leadership, and the letter for your Head of Government is attached.

Dr. Tolba would be most grateful if you could transmit it.

Yours sincerely,

DKaniaru

Donald W. Kaniaru
Chief, Office of the
Executive Director

Sir John R. Johnson, KCMG
High Commissioner
Permanent Representative
Permanent Mission of the United Kingdom
of Great Britain and Northern Ireland to UNEP
Bruce House
Standard Street
Nairobi

575/9

UNITED NATIONS ENVIRONMENT PROGRAMME

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333930 or 520600
Fax (2542) 520711
Tx 22068 UNEP KE

P.O. Box 30552
Nairobi, Kenya

Your Reference

Our Reference

14 September 1989

Your Excellency,

I have the honour to refer to the Economic Summit held in July 1989 in Paris and the Economic Declaration resulting therefrom.

I congratulate most warmly the Summit leadership for devoting so much time to global environmental issues. Your wisdom and vision in this regard, which we trust will be translated into action soon, will go a long way to save our human environment for present and future generations.

UNEP has been and continues to be deeply involved in most of the environmental issues the Summit Declaration addressed, and we are at the service of the Summit countries and the world at large to attain the goals outlined in the Declaration.

While I am not immediately familiar with the mechanisms the Summit countries will use to carry out the Declaration's proposals, it seems clear that the Economic Summit countries have a unique opportunity to contribute substantially to resolving the critical environmental issues before the world community.

I would like to propose that the Seven Summit countries and the EEC convene soon (preferably before the end of November 1989) a meeting of their Ministers of Environment, preferably in conjunction with Ministers of Foreign Assistance, to develop specific measures to translate the words of the Declaration into effective action, as appropriate, at the national and the international level.

I would suggest that meeting might take up in the first instance the issues of climate change, ozone layer depletion, biological diversity and tropical forests. In addition to specific actions that industrialized countries might take jointly to address critical problems, the Ministers might also consider how to assist developing countries to play their role in addressing these problems.

H.E. Mrs. Margaret Thacher
The Prime Minister
United Kingdom

Could the Summit governments working together plot new directions for the world, for example, in achieving energy efficiency, reducing carbon dioxide emissions, developing alternative sources of energy and transferring technologies to developing countries?

The international community would benefit immensely if the Summit countries with their tremendous economic weight in the world moved swiftly to shape the Economic Summit Declaration into concrete action programmes.

On our part, I pledge UNEP's readiness to co-operate closely in the above exercise.

Accept, Your Excellency, the assurances of my highest consideration.

Mostafa K. Tolba
Executive Director

RESTRICTED

FCO
SL2AWY

cc PC

10 DOWNING STREET

LONDON SW1A 2AA

11 September 1989

From the Private Secretary

Dear Stephen,

PRIME MINISTER'S SPEECH AT THE UN GENERAL ASSEMBLY

Thank you for your letter of 7 September about the arrangements for the Prime Minister to address the UN General Assembly in the autumn. I think that the Prime Minister would be content with what you propose, although it is difficult to make firm plans until we have a date for the State Opening.

Yours ever

Charles

C. D. POWELL

J. S. Wall, Esq.,
Foreign and Commonwealth Office

RESTRICTED

Prime Minister

RESTRICTED

cc PM (1)

we cannot fix a date until we know about the State Opening.

If State Opening on Wednesday there will be no Questions on Thursday. Can I leave H of Commons after my own speech, fly to N. York and speak on Thursday morning.

But you might go over by Concorde after engagements on a Tuesday, do the Reception that evening, speech & lunch on the Wednesday morning, then on to Washington in the afternoon

Foreign and Commonwealth Office
London SW1A 2AH

7 September 1989

Dear Charles,

Prime Minister's speech at the UN General Assembly

Your letter of 25 August to Kate Bush recorded the Prime Minister's willingness in principle to address the General Assembly this autumn on environmental issues, subject to our finding a convenient date after the Lord Mayor's Banquet (13 November) and the State Opening of Parliament (7 or 14 November). The Environment Secretary has undertaken to provide an outline for the speech and Sir Crispin Tickell will make a substantial contribution to the draft.

Drop

Contact with the outline CDP 7/9

We have consulted our mission in New York about dates and what other functions the Prime Minister might undertake while she is there. Their advice is:

- that the Prime Minister can address a plenary session of the General Assembly at a time of her choosing. Such a speech would, however, normally be delivered in the morning (which is also best for the British media - but might require the Prime Minister to fly over the night before). It should also, if possible, take place soon after 14 November (when environmental discussions in the Assembly will still be at an early stage) and between Tuesday and Thursday when attendance is likely to be fuller;

- the normal protocol is that the Prime Minister would also pay calls on the President of the Assembly and the Secretary General. The latter (to whom Sir Crispin has spoken about all this) has offered to give a lunch in her honour afterwards;

- Sir Crispin suggests that it would be a nice touch if (assuming she spoke in the morning) the Prime Minister could attend a brief working meeting of the Ambassadors of the Five Permanent Members of the Council. This would underline very clearly the importance we attach to the work of the Five. He has also offered to give a reception in her honour in the evening, or on the evening before if she arrives then, including prominent UN figures and leading members of the UN environmental and scientific community.

I would be grateful for your reaction to all this. It would be particularly helpful to fix a date for the speech soon so that we can begin making detailed arrangements.

Yours, Stephen Wall

(J S Wall)
Private Secretary

C D Powell Esq

CABINET OFFICE

70 Whitehall London SW1A 2AS Telephone 01-270

RESTRICTED

W0207

MR POWELL - No. 10 8 September 1989

INTERNATIONAL ENVIRONMENTAL ISSUES.

Having seen your minute of 28 July to Stephen Wall, I warmly welcome both the Prime Minister's continuing interest in this most important international issue and the proposal that she might make a speech to the UN in November.

2. With respect to the requirements for environmental research, you will be aware of cases made for extra money in the PES advice from the Advisory Board for the Research Councils and in DoE's PES bid. In addition, the recent ACOST advice on National Priorities endorsed current activities on monitoring, data collection and modelling but emphasised the need for more basic science to provide better information in the chemical and biological mechanisms. Indeed, the public awareness and concern about global environmental issues has derived largely from scientific discoveries.

3. I support the cases for ERS2, a climate change centre and the World Ocean Circulation Experiment which should be funded through re-prioritisation of other less important research. However, in addition to these new expenditures, it might be opportune to reconsider our overall financial support for environmental research across Departments.

4. The suggestions on the economic side are sensible but actions need to be dovetailed with scientific research and opportunities. The latter of course range further than environmental research, covering such areas as alternative energy sources, energy efficiency and substitution of products such as chlorofluorocarbons.

5. I am copying this minute to the recipients of yours.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

GJU AFFAIRS : Acad Learn Pt II

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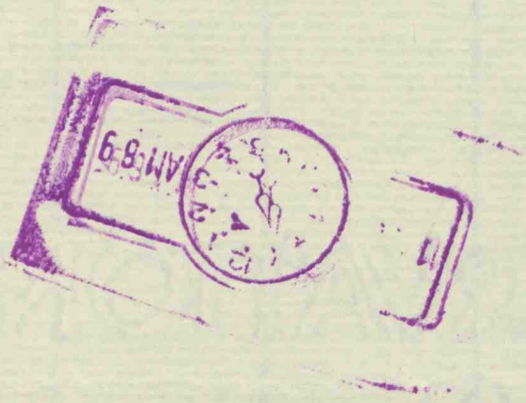

RESTRICTED

Prime Minister

Foreign and Commonwealth Office
London SW1A 2AH

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I would be grateful for your reaction to all this. It would be particularly helpful to fix a date for the speech soon so that we can begin making detailed arrangements.

Yours, Stephen Wall

(J S Wall)
Private Secretary

C D Powell Esq
10 Downing Street

RESTRICTED

cc/ (1)

We cannot fix a date until we know about the State Opening.
But you might go over by Concorde after speaking on a Tuesday, do the Reception that evening, speech & lunch on the Wednesday morning, then on to Washington in the afternoon

Contact with that outline?

CDP 7/9

If State Opening is on a Wednesday there will be no Cabinet on Thursday

Could I leave the House of Lords' own speech, fly to New York, speak on Thursday morning and

ENV AFFAIRS : Acid Rain Pt II

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UNCLASSIFIED

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street SW1P 3AG

Miss Kate Bush
Private Secretary to the
Secretary of State for the Environment
Department of the Environment
2 Marsham Street
London
SW1P 3EB

31 August 1989

Dear Kate

NEW POLLUTION CONTROLS - PUBLIC ACCESS TO INFORMATION

Thank you for copying to me your letter of 18 August to Caroline Slocock enclosing a copy of the draft consultation paper on public access to pollution control information, which your Secretary of State intends to publish this week.

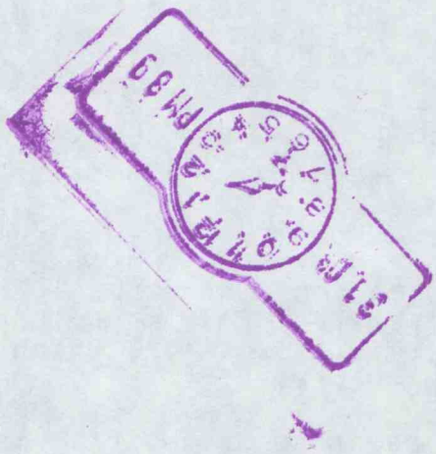
We are content for the paper to issue, but wish to register a few points on the resource implications section (paragraphs 24 and 25). This says that the proposal should add little to the costs of those firms which are subject to IPC. You may need to prepare a compliance cost assessment to inform Ministers' decisions. On the resource implications for the enforcing authorities arising from maintenance of registers, we note that the costs will be reflected in the proposed system of charging operators for authorisations. We are satisfied that charging a reasonable fee to a member of the public for a copy of a register qualifies as negative public expenditure and can therefore be offset against the cost. But it is less certain if income from charging operators for authorisation will in practice be treated as revenue or negative public expenditure, and this may need to be considered further before firm proposals are put to Ministers.

Copies of this letter go to the Private Secretaries to members of E(A), to Bob Peirce (Foreign and Commonwealth Office), Colin Walters (Home Office), John Colston (Defence) and Trevor Woolley (Cabinet Office).

Yours
Carys Evans

MISS C EVANS
Private Secretary

ENV AFFAIRS: Acid Rain Pt II



dti

the department for Enterprise

The Rt. Hon. Nicholas Ridley MP
Secretary of State for Trade and Industry

Ms Kate Bush
Private Secretary to the
Secretary of State
Department of the Environment
2 Marsham Street
LONDON SW1P 3EB

Department of Trade and Industry

1-19 Victoria Street
London SW1H 0ET

Enquiries
01-215 5000

Telex 8811074/5 DTHQ G
Fax 01-222 2629

NBPM CAB 20/8

Direct line 215 5622
Our ref PB4AAH
Your ref
Date 29 August 1989

Dear Kate

NEW POLLUTION CONTROLS : PUBLIC ACCESS TO INFORMATION - CONSULTATION PAPER

Thank you for sending me a copy of your letter of 18 August to Caroline Slocock.

I can confirm that my Secretary of State is content for the consultation paper to issue.

Copies go to the recipients of your letter.

Yours ever

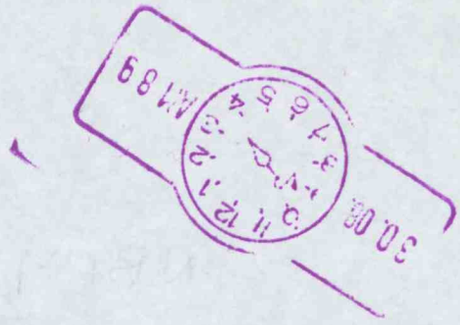
R Slocock.

ROSALIND COLE
Private Secretary

the Enterprise initiative

Recycled Paper

ENV ARKAIR1: Acid Rain A11



(2)

UNITED KINGDOM MISSION
TO THE UNITED NATIONS
845 THIRD AVENUE
NEW YORK, N.Y. 10022

28 August 1989

Duncan Slater Esq CMG
Assistant Under-Secretary
WH 331
FCO

Prime Minister

You may be interested to see this which Crispin Tickell has sent me. CDP 30/8

Dear Duncan,

CLIMATE CHANGE: A SORT OF US/USSR SUMMIT

You may remember that I wrote to you on 25 May about the US/Soviet Sundance Summit, now re-christened the Greenhouse Glasnost Symposium, about the problems of global climate change. The Symposium took place at Sundance near Salt Lake City from 23 to 26 August. The initiator and patron was the actor Robert Redford, who presided over what turned out to be a remarkable event: I enclose a press report in yesterday's New York Times which gives something of its flavour.

2. Most remarkable of all was the participation. As you will see from the list I enclose, the participants came from a spectrum which included US and Soviet scientists at one end, and high ranking politicians, think-tankers and senior business representatives at the other. There was also a thick envelopment of media-persons, who followed us round, even into the working groups, with notebooks, microphones and trailing television equipment. It thus became a substantial media event with good coverage on national radio and television throughout. The outcome was a letter to President Bush and President Gorbachev, and a report on the conference with recommendations for future action. The final touches were being given to both the letter and the report at the end, and none of us received them before we left. But I will let you have copies in due course.

3. As in most American symposiums of this kind, the participants looked as much to the media as to the substance of the issues. The Symposium was poorly organized, wasted a lot of time, dodged most of the hard issues, and failed to intermesh with current concerns, difficulties and continuing work of governments. The speakers were often self-congratulatory, prolix, self-important and sentimental. Throughout I thought the Soviet participants were somewhat harder headed than their US counterparts. Yet the bringing together of all these diverse people and their opinions made it an interesting and valuable occasion, and the three foreigners present (Maurice Strong of Canada, Noel Brown of UNEP and I) all felt honoured to have been present.

4. If the purpose of the Symposium was to raise consciousness of the problems of global climate change, it more than achieved this result. Of the US scientists, Carl Sagan (of Cornell University), Jim Hansen (NASA) and Stephen Schneider (of the National Center for Atmospheric Research) were the stars. Politicians included Senators Bradley, Wirth and Heinz, and Congresswoman Claudine Schneider came from the House of Representatives. The US Government was poorly represented by Michael Deland (Chairman of the Council on Environmental Quality in the White House) who, although sensible and skilful, is only two or three weeks into his job; and by Bruce Gelb (the Director of the United States Information Agency) who knew little about the subject or its international implications. On the Soviet side, the stars were Roald Sagdeev (of the Soviet Academy of Sciences and a People's Deputy), and Kakimbek Salykov (Chairman of the Supreme Committee on Ecology and Rational Use of Natural Resources, and also a People's Deputy). They were well supported by the Soviet Consul-General in San Francisco (representing the Ambassador in Washington), and Elvira Orlova (from the Space Research Institute in the Soviet Academy of Sciences). A refreshing aspect of the Symposium was that the Russians as well as the Americans spoke with many voices, most of them irreverent. If Salykov was the somewhat stiff bureaucrat, Sagdeev ranged freely in all directions, and Boris Grushin (of the National Public Opinion Research Center of Social Economical Issues) was almost embarrassingly frank about Soviet shortcomings.

5. It is not easy to generalize from three days pretty intensive discussions, but I will make a brief attempt. On the American side, there was a general feeling that although President Bush was amiably inclined to take action on environmental problems (in line with his campaign commitments), he needed galvanizing, and that this Symposium, with public opinion to be mobilized behind it, represented the best way of doing so. There was a marked tendency for the Americans to see the world as divided into two: the Americans and their new found friends the Russians; and the non-industrial countries who needed to be understood, educated and brought up to the mark. There were lots of calls for US/Soviet leadership, and an astonishing measure of ignorance of what was being done by other industrial countries and the international community generally through the United Nations. Much emphasis was laid on common US/Soviet interests, the attachment of each country to land, sea and space, and their future role in world management. Much sentiment but little practical thought was expressed about the problems of the non-industrial world, and how to bring along such countries as India, China and Brazil.

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6. The Russians responded rather than initiated throughout. American generosity can be overwhelming, and I think the Russians felt it to be so. They also spoke about common interests, attachment to the land and the rest, but they were notably realistic about the difficulties, and their commitment to action at home to cope with environmental problems was muted and non-committal. I have little doubt that they were more conscious than most Americans that, by most reckonings, the Soviet Union is, in terms of its industrial base, the most polluted and polluting country in the world. Bruce Gelb (USIA) showed me privately a report from the US Embassy in Moscow about the state of the Soviet environment, which made dismaying, if not horrifying reading. I should be most interested to see the report the Soviet participants make to their own Government! When I referred in the winding-up speech of the Symposium to the need for both the United States and Soviet Union to get the right inter-agency mechanisms in place at the top of their respective Administrations, I got strong and evidently heartfelt support from the Soviet participants in the debate which followed.

7. You may well wonder about my own role at this US/Soviet junket. I should first say that British influence was evident throughout: from copious reference to the British scientific contribution from such bodies as the University of East Anglia to a video message to the Symposium, listened to with much respect, from Jim Lovelock in Britain. It fell to me to chair a plenary session on the international aspects of the problem, to make the final winding up speech, to remind the Symposium at regular intervals that the United States and the Soviet Union did not and should not run the world between them, and to help with the drafting of the final documents (at least I think I eliminated some of the nonsense although I have yet to see the final result). I also took the opportunity to put across the British point of view to the thronging media-persons, including the BBC, and you may see the result before long in Britain.

8. Obviously one of the most interesting aspects of the Symposium was the opportunity it gave in a spectacularly beautiful place in the Rocky Mountains, to chat over meals and elsewhere with a lot of interesting people. I will not bother you with a lot of records, but you may find the attached note of my discussion with Roald Sagdeev worth reading. I found him a fascinating and many sided person. I gather that I just missed him during my visit to Moscow in early July. As Rodric Braithwaite well knows, he is one of the most productive Soviet scientists

/with

with wide knowledge of the West, and now, through his election as a People's Deputy, with a voice in national affairs. After hearing him I cannot help wondering whether the Soviet Union really counts as a super power except in the military sense: as someone recently said to me, Moscow is Lusaka with a nuclear capability.

9. One final reflection. Having chaired the plenary session on the international aspects, I felt not for the first time what a strong position we as British occupy in this debate. There was the Prime Minister's speech to the Royal Society, the London Conference on the ozone layer, the Prime Minister's seminar of 26 April, our role in the Intergovernmental Panel on Climate Change, and the proposals which fell to me to put in New York on 8 May. In short we are right at the front of this debate. If we are, as I hope to stay there, we must continue to have ideas, work out the implications at home, push things along internationally, and generally retain the initiative. Let boldness be our friend.

Yours ever

Crispin

Crispin Tickell

cc: Sir Antony Acland GCMG KCVO
WASHINGTON

Sir Rodric Braithwaite KCMG
MOSCOW

with all enclosures

Sir Terence Heiser KCB
Permanent Secretary, Dept of the Environment

T P Lankester Esq
Permanent Secretary, Overseas Development Administration

bcc: Charles Powell Esq
10 Downing Street

ANNEX: BREAKFAST WITH ROALD SAGDEEV AT SUNDANCE, UTAH ON 26 AUGUST 1989

I had breakfast with Roald Sagdeev (of the Soviet Academy of Sciences and a People's Deputy) on 26 August.

2. Sagdeev said that the Soviet Union had such horrendous internal problems that we could virtually rule out its full participation in the world economic system for decades. The country had been going in the wrong direction for so long that no-one knew what the right direction was. Communism no longer had the support of most of the population. The difference was that now people realized there were alternatives. But how to go for them was beyond people's knowledge and experience.

3. We discussed the situation in Europe. Sagdeev said that he feared a kind of Soviet slide towards a special relationship with the Federal Republic. Apart from the current Soviet fascination with the United States, the Germans loomed largest in the Soviet mind, and were now doing more than any other country to invest, trade and otherwise take interest in the Soviet Union. This could not but affect the position of East Germany, and he saw an evolution towards German reunification. This would cause a major upset in the balance of power not only in Europe but in the world at large. For these reasons Sagdeev said that he thought it important that both the United States and the Soviet Union should retain troops in Europe, perhaps of symbolic rather than practical size, to help maintain political stability. We then discussed the role of the European Community in helping to anchor West Germany in the Western economic system, and the possible destabilizing effects of the Eastern European countries, with their various mutual antagonisms, recovering genuine independence.

4. Sagdeev's view of the world was bleak. We were heading for a major environmental catastrophe, above all in his own country, and he did not think that anyone had yet got the measure of the problems facing us. But cheerfulness would keep breaking in. He told a good story about how one of the leading Soviet climatologists Budyko had asked him to sign a joint letter to President Gorbachev to point out that global warming might benefit the Soviet Union by opening up the frozen northern tundra to cultivation. Apparently Sagdeev expressed deep scepticism, and then asked: "What about the United States?" Budyko replied that it would become like the Sahel. To which Sagdeev replied: "Then where would we get our grain?" Significantly he refused to sign the letter.

28 August 1989

Crispin Tickell

New York Times: 27 August 1989

Summit of Sorts on Global Warming

A partial accord is reached on the environment and the future.

By ROBERT REINHOLD
Special to The New York Times

SUNDANCE, Utah, Aug. 26 — Top Soviet and American scientists, environmentalists, policymakers, industry leaders and artists today urged President Bush and President Mikhail S. Gorbachev of the Soviet Union to form an "environmental security alliance" to reverse what they fear could be a catastrophic warming of the planet.

The gathering urged that the superpowers promote energy-efficient technologies and phase out production and use of chlorofluorocarbons no later than the year 2000. The group said the countries should "substantially reduce" carbon dioxide emissions, reduce the loss of forests and promote tree planting worldwide. Participants asked that the two leaders appeal directly to their citizens to help.

The joint letter avoided specific goals to achieve a compromise between the Soviet and American participants and within the American contingent, even though some participants had wanted specific numerical and time goals on cutting emissions. But it represented the most concerted Soviet-American action yet over fears that the emission of industrial chemicals into the atmosphere is causing a worldwide warming trend, or "greenhouse effect."

Meeting Has Festive Side

"Soviet and U.S. scientists agreed that continued buildup of greenhouse gases at present rates will insure that global temperatures rise before the middle of the next century above anything in human history," an accompanying report stated. The report said disruptions in agriculture and rising sea levels would cause "massive refugee problems."

The recommendations came at the end of an unusual meeting of 11 Soviet and nearly 200 American conferees at this remote ski resort, where the issues of global demise were debated in rustic elegance over racks of fire-cooked salmon and barbecued chicken. It was the largest direct meeting between Americans and Russians on the warming trend.

"The issue of global survival should be elevated to the level of nuclear survival," said Roald Z. Sagdeev, a powerful Soviet academician with the Space Research Institute in Moscow.

A growing number of scientists share the opinion that the gases, mainly carbon dioxide, methane, nitrous oxides, and the inert industrial gases known as chlorofluorocarbons, trap sunlight reflected by the earth and will raise average temperatures worldwide from 3 to 8 degrees Fahrenheit. Some scientists fear that this greenhouse effect will cause flooding of major cities and catastrophic loss of forests.

For three days in the rarefied atmosphere of Robert Redford's Sundance resort in a spectacular central Utah canyon, the air hung heavy with talk of environmental refugees and of nations turned into "ecological hostages."

The meeting, dubbed "greenhouse glasnost" by its sponsors, was the Sundance Symposium on Global Climate Change. It was organized by the Soviet Academy of Sciences and the Institute for Resource Management, founded by Mr. Redford, the actor who has long been interested in environmental issues.

Little Skepticism on Trend

While some scientists remain skeptical that the earth is really warming, few participants here share that view. Mr. Redford said the time for study was over, and that the conference was meant to be a way of "passing the baton from data base to action."

"We are not here to debate the phenomenon," said Terrell Minger, president of the institute. "We are here to debate the response to it."

Whatever the climatic implications of the greenhouse effect, it has spawned a growth industry for hardened regulars of the conference circuit. This was already the fifth major global climate symposium this summer in the United States alone. Just last month, the Aspen Institute held a conference on "The Global Commons," featuring many of the same players. And even as they repaired to this alpine resort, far from smog-ridden cities, there was a competing conference sponsored by the singer John Denver in Aspen. Some of the participants shuttled by private airplanes between the two meetings.

"Until two years ago, you could almost be at all of the conferences — now it's impossible," said one veteran, Dean Abrahamson of the Humphrey Institute of Public Affairs at the University of Minnesota. "Ours will be the last generation that gets to generate a ton of carbon dioxide going to meetings

Associated Press

Soviet and American participants in a meeting in Sundance, Utah, earlier this week urged President Bush and President Mikhail S. Gorbachev of the Soviet Union to form a Soviet-American "environmental security alliance" to reverse what they fear could be a catastrophic warming of the planet. Roald Z. Sagdeev, left, a Soviet academician with the Space Research Institute in Moscow, and Terrell Minger, the president of the Institute for Resource Management, which was founded by Robert Redford, the actor, who is interested in environmental issues, spoke at the seminar's final session.

to talk about global warming."

Such irreverence aside, many thought the conference offered strong evidence that a remarkable degree of political consensus was forming.

Among the Soviet representatives were Georgii S. Golitsyn, a member of the presidium of the Soviet Academy of Sciences and chief of the Climate Institute of Atmospheric Physics; Kakimbek A. Salykov, a People's Deputy who is chairman of the Supreme Committee on Ecology and Rational Use of Natural Resources, and Mr. Sagdeev.

The American contingent included such leading proponents of warming theory as Stephen Schneider of the national Center for Atmospheric Research in Boulder, Colo.; James E. Hansen of the NASA Goddard Institutue for Space Studies and Carl Sagan of Cornell University; environmentalists like John Adams, executive director of the Natural Resources Defense Council, and Frederic Krupp, executive director of the Environmental Defense Fund; Senators Bill Bradley of New Jersey and Timothy Wirth of Colorado, Democrats, and John Heinz, a Pennsylvania Republican; Jane Pauley and Tom Brokaw of NBC News, the cartoonist Garry Trudeau and American Indian chiefs and businessmen.

Nearly all agreed the solution involved reducing gas emissions, more efficient energy use, reforestation and population control. While the two superpowers could not do this alone, Michael Oppenheimer of the Environmental Defense Fund said it was up to them to "jump start" the process.

Mr. Adams said the Soviet-American political thaw opened the way to a "new age" of "global ecological alliances" in which the "primary international issue will be protection of the environment instead of military confrontation."

Obstacles Are Seen

But others saw major impediments. Alan Hecht, the new deputy assistant administrator for international affairs at the Environmental Protection Agency, said in an interview that Soviet economic difficulties clashed with their best intentions. "The Russians want to cut emissions, but we will have to give or sell them the technology," he said.

In an interview, Mr. Sagdeev conceded there were impediments, not least that some Soviet experts believed that global warming could actually help their country by turning frozen tundra into farmland. But he said that Mr. Gorbachev was "ready to accept the fact that future ecological disaster could be as dangerous as nuclear ones." He added that a powerful "grass roots" environmental movement was emerging in the Soviet Union.

Mr. Salykov pointed out that his Government recently created an agency like the E.P.A. and said Soviet-American cooperation was "not only possible but necessary."

While many agreed with Senator Wirth that the American public believes environmental threats have replaced nuclear threats, there were doubts, too, that American society was prepared to act on global warming. Thomas G. Lambrix, director of governmental relations for the Phillips Petroleum Company, said more incentives rather than penalties were needed to help industry cooperate.

And Kenneth J. Barr, president of the Cyprus Minerals Company, a coal producer in Englewood, Colo., complained that the American public was being sold "panic" on the issue before the evidence was in and without consideration of the costs and lost competitiveness.

Hanging ominously over the conference was the fact that the largest growth in emissions over the next few decades will come from underdeveloped countries as they industrialize. If more modern countries do not help them develop efficiently, Mr. Sagdeev said, "we are going to become ecological hostages of the third world."

There were few voices here from third world countries. Noel Brown, a Jamaican representing the United Nations Environmental Program, said Soviet-American cooperation "can only be beneficial," but that in the interest of "equity" for the third world the superpowers must reduce their own emissions.

The chairman of President Bush's Council on Environmental Quality, Michael Deland, said the two superpowers must first "cleanse our hands" before preaching to the Third World — by cooling our "love affair" with the automobile, for example.

With the compliments of

The Permanent Representative

United Kingdom Mission
to the United Nations,
845 Third Avenue,
New York, N.Y. 10022

GREENHOUSE GLASNOST

THE SUNDANCE SYMPOSIUM
on
Global Climate Change

AGENDA

WEDNESDAY - AUGUST 23

Afternoon	Check-in and registration of conference participants
6:00 pm	Reception, Outside Deck, Rehearsal Hall
	Welcome to Sundance - *Robert Redford, Founder, Institute for Resource Management* US/USSR Relations in the Era of Glasnost - *Bill Bradley, U.S. Senator, New Jersey*
7:00 pm	Dinner, Rehearsal Hall
8:30 pm	Opening Ceremony - *Oren Lyons, Chief, Onondaga Nation* *Leon Shenandoah, Chief, Six Nations of the Iroquois*
	Concert, Sundance Outdoor Theatre - *The Paul Winter Consort*

THURSDAY - AUGUST 24

7:00 am	Coffee, Creekside
7:30 - 8:45 am	Breakfast, Creekside
9:00 am	**CONFERENCE WELCOME AND OPENING REMARKS**, Rehearsal Hall
	Robert Redford, IRM Founder, Honorary Symposium Co-Chairman *Howard Allen, IRM Chairman; Chairman of the Board, Southern California Edison Company* *Valentin Kamenev, USSR Consul General, Honorary Symposium Co-Chairman* *William Mansfield III, Deputy Executive Director, United Nations Environment Programme*

Keynote Address - *Roald Sagdeev, Academician; Member, Peoples Congress*
Keynote Address - *Carl Sagan, Professor, Cornell University; President, Planetary Society*

10:30 am **INTRODUCTION TO SYMPOSIUM**

Terrell Minger, President, IRM
Symposium Chairman Roger Rosenblatt, Editor, U.S. News & World Report

Visual Presentation: Images of Glob. Climate Change - *Payson Stevens, President, InterNetwork, Inc.*

GLOBAL CLIMATE CHANGE AND WHAT IT MEANS

Moderator: *Walter Orr Roberts, President Emeritus, University Corporation for Atmospheric Research*

Presentors: *James Hansen, Director, NASA Goddard Institute for Space Studies*
Georgii Golitsyn, Member, Presidium of the USSR Academy of Sciences; Chief of the Climate Institute of Atmospheric Physics
Steve Schneider, Head, Interdisciplinary Climate Systems Section, Center for Atmospheric Research

Response: *George Woodwell, Director, The Woods Hole Research Center*
Justin Lancaster, Scripps Institution of Oceanography
Daniel Botkin, Professor of Biology and Environmental Studies, University of California Santa Barbara
Igor Mokhov, Senior Scientist, Institute of Atmospheric Physics, USSR Academy of Sciences
Peter Gleick, Pacific Institute for Studies in Development, Environment and Security
Stephen Leatherman, Director, Center for Global Change

12:00 Noon Lunch, Creekside

1:00 pm Rehearsal Hall:

Speaker: *Gilbert Grosvenor, President and Chairman of the Board, National Geographic Society*

1:15 pm **POLICY RESPONSES: WHAT CAN THE US AND USSR DO INDIVIDUALLY AND COOPERATIVELY?**

Moderator: *Tim Wirth, U.S. Senator, Colorado*

Presentors:
Richard Morgenstern, Director, Office of Policy Analysis, EPA
Kakimbek Salykov, People's Deputy; Chairman, Supreme Soviet's Committee on Ecology and Rational Use of Natural Resources
William Mansfield III, Deputy Executive Director, UN Environment Programme

Response:
Dean Abrahamson, Professor of Public Affairs, Humphrey Institute of Public Affairs
John Adams, Executive Director, Natural Resources Defense Council
Michael Deland, Chairman Council on Environment Quality
Michael Oppenheimer, Senior Scientist, Environmental Defense Fund
Tom Lovejoy, Assistant Secretary for External Affairs, Smithsonian Institution
Tom Lambrix, Chairman, Global Climate Coalition; Director, Government Relations, Phillips Petroleum Company

2:45 pm **WHAT ARE THE BARRIERS TO US/ USSR POLICY ACTION?**

Moderator: *Cecil Andrus, Governor, Idaho*

Presentors:
Boris Grushin, Deputy Director, National Public Opinion Research Center of Social Economical Issues
Paul Ehrlich, Professor of Biology, Stanford University
Alan Hecht, Director, National Climate Program Office, National Oceanic and Atmospheric Administration

Response:
Kenneth Barr, President and Chief Executive Officer, Cyprus Minerals Company
Joe DeCola, Producer for Special Segments, NBC Nightly News
Jay Hair, President, National Wildlife Federation
Eugene Tracy, Chairman of the Board and Chief Executive Officer, Peoples Energy Corporation
Charles Imbrecht, Chairman, California Energy Commission

4:15 pm **BARRIER I:** What are the Technological, Industrial, and Economic Constraints?

Moderator: *John Heinz, U.S. Senator, Pennsylvania*

Presentors:
Irving Mintzer, Senior Associate, World Resources Institute
Howard Allen, IRM Chairman; Chairman of the Board, Southern California Edison Company
Igor Bashmakov, Head of Laboratory, Energy Research Institute, State Committee for Science and Technology, USSR Academy of Sciences

Response:
Amory Lovins, Director of Research, Rocky Mountain Institute
Joe Cannon, President and Chief Executive Officer, Geneva Steel
Jim Lents, Executive Director, South Coast Air Quality Management District
Ross Stevens, Environmental Affairs Manager, Du Pont El de Nemours & Co.
Fred Krupp, Executive Director, Environmental Defense Fund
Hugh Faulkner, Secretary General, International Chamber of Commerce

6:15 pm Summary of Conclusions - *Symposium Chairman Roger Rosenblatt*

7:00 pm Reception and Salmon Bake, Creekside

Presented by the Confederated Tribes of the Warm Springs Indian Reservation, Warm Springs Oregon

8:30 pm Film Screening, Screening Room: "Bells of Chernobyl"

FRIDAY - AUGUST 25

7:00 am Coffee, Creekside

8:00 am Breakfast, Creekside

9:00 am Rehearsal Hall:

Special Video Tape Message from *Dr. James Lovelock* to Conference Participants

BARRIER II: Impacts upon Citizens, Consumers, and the Role of Media, Art and Public Education, Rehearsal Hall

Moderator: *Roger Rosenblatt, Editor, U.S. News and World Report*

Presentors: *Tom Brokaw, Anchor and Managing Editor, NBC Nightly News*
Claudine Schneider, U.S. Congresswoman, Rhode Island
Tom Mathews, Partner, Craver, Mathews, Smith & Co. Inc.
Marina Goldovskaya, Producer

Response: *Boris Grushin, Deputy Director, National Public Opinion Research Center of Social Economic Issues*
Stanislav Govorukhin, Producer; Script Writer; Publicist; Actor
Mino Damato, Piazza Belle Arti
Bill Aldridge, Executive Director, National Science Teachers Association
Garry Trudeau, Author, Cartoonist
Barbara Pyle, Environmental Editor, Cable News Network
Robert Ornstein, President, Institute for the Study of Human Knowledge

11:00 am **BARRIER III:** International Policy Consensus and Cooperation

Moderator: *Sir Crispin Tickell, Ambassador/Permanent Representative of the United Kingdom to the United Nations*

Presentors: *Valentin Kamenev, USSR Consul General*
Noel Brown, Regional Office, Special Representative of the Executive Director, United Nations Environment Programme
Bruce Gelb, Director, U.S. Information Agency

Response: *Maurice Strong, President, Strovest Holdings*
George Keller, Former Chairman of the Board, Chevron Corporation
Susan Eisenhower, President, Eisenhower Group, Inc.
Hedrick Smith, Author

12:30 pm — Film Screening, Screening Room: "Yosemite: The Fate of Heaven

1:45 pm — Lunch - Pick up Bag Lunches outside Screening Room and Proceed to Small Group Working Sessions Locations

1:45 - 5:30 pm — Small Group Working Sessions

US/USSR POLICY RESPONSES
Co-Chairs - Michael Deland
Kakimbek Salykov

US/USSR RESEARCH PRIORITIES
Co-Chairs - Richard Anthes
Georgii S. Golitsyn

US/USSR PUBLIC EDUCATION
Co-Chairs - Claudine Schneider
Boris Grushin

DEVELOPING INTERNATIONAL POLICY CONSENSUS AND COOPERATION
Co-Chairs - Noel Brown
Hugh Faulkner

US/USSR COOPERATIVE FILM ON GLOBAL CLIMATE CHANGE
Co-Chairs - Suzanne Weil
Marina Goldovskaya

CLIMATE ACTION PROJECT
Co-Chairs - Guy Brasseur
Terrell Minger

7:00 pm — Barbeque, Creekside

8:30 pm — Screening Room:

Speaker - *Russell Schweickart, President, Association of Space Explorers*

Neptune Unveiled: Images from Voyager 2

Film Screening: "For All Mankind"

SATURDAY - AUGUST 26

7:00 am	Coffee, Creekside
8:00 am	Breakfast, Creekside
9:00 am	Rehearsal Hall:
	Speaker: *Sir Crispin Tickell, Ambassador Extraordinary and Plentipotentiary, Permanent Representative of the United Kingdom to the United Nations*
9:15 am	*Roger Rosenblatt* Recommendations from the small groups will be presented and discussed

- Report to President Bush and USSR Secretary General Gorbachev
- US/USSR Global Climate Change Initiatives
- US/USSR Cooperative Film Project
- Other Recommendations

Closing Statements
Valentin Kamenev
Roald Sagdeev
Robert Redford

Conference Adjourns

12:00 Noon	Lunch, Creekside
7:00 pm	Reception and Dinner, Rehearsal Hall

SUNDAY - AUGUST 27

6:30 am	Continental Breakfast, Guest Check-out/Reception Cottage

CC

NBPM 18 29/8

SCOTTISH OFFICE
WHITEHALL. LONDON SW1A 2AU

Kate Bush
Private Secretary
Department of the Environment
2 Marsham Street
LONDON
SW1P 3EB

25 August 1989

NEW POLLUTION CONTROLS: PUBLIC ACCESS TO INFORMATION PUBLICATION OF CONSULTATION PAPER

I refer to your letter of ~~18 August~~ 17 to the Prime Minister's Private Secretary in which you sought comments on the draft consultation paper on public access to the information which will be held by the pollution control authorities under the new pollution control systems to be introduced by the Environmental Protection Bill.

We have no comments on what is proposed in the draft consultation paper but suggest that an additional paragraph on the following lines be added to the press notice, in the section "Notes to Editors", to indicate that the proposals in the consultation paper relate to England and Wales only.

> "The proposals in the consultation paper relate to England and Wales only. Proposals for changes in the system of pollution control in Scotland have been published separately and the Scottish Office will shortly publish its own proposals for public access to information".

Copies go to Caroline Slocock, Private Secretaries to members of E(A), to the Foreign and Home Secretaries, the Secretary of State for Defence and Sir Robin Butler.

Jim Revill.

pp **DAVID CRAWLEY**
Private Secretary

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ENV. AFFAIRES : Audrain Pt II

ECIC

Foreign and Commonwealth Office

London SW1A 2AH

25 August 1989

Crossed with my letter. Await further advice CDP 29/8.

Dear Charles

International Environmental Issues

Thank you for your letters of 28 July and 2 August about the Prime Minister's talks with Sir Crispin Tickell. This letter deals with the proposal that the Prime Minister should make a speech on environmental issues at the UN in November. The Private Secretaries at the Department of the Environment and the ODA are writing about the other issues which you raised.

The Foreign Secretary welcomes the suggestion that the Prime Minister should address the General Assembly. It would be an excellent opportunity to re-state the British Government's environmental policies. Most Foreign Ministers leave New York after the first couple of weeks so the Prime Minister would be likely to be addressing mainly Permanent Representatives and Delegates. But a speech by a Head of Government always attracts a great deal of attention, as was demonstrated when President Gorbachev addressed the General Assembly late last year.

The ideal timing would be for the Prime Minister's speech to come before the Second Committee Debate on the environment in the second half of October. If the diary does not permit this, we would hope that time might be found before the international Ministerial Conference on Climate Change which the Dutch are hosting on 6/7 November.

If the Prime Minister agrees, I should be grateful if you suggest dates that we might put to the United Nations, who are accustomed to accommodating Heads of Government at almost any stage in the General Assembly. We, the DOE and the ODA will then begin urgent work on a draft.

I am copying this letter to Roger Bright (DOE), Alex Allan (HM Treasury), Stephen Crowne (Department of Education and Science), Myles Wickstead (ODA) and Trevor Woolley (Cabinet Office).

Yours ever

(R N Peirce)
Private Secretary

C D Powell Esq
10 Downing Street

Env Affairs. Act

Ran Pt 11

MRM

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

25 August 1989

Dear Kate,

Thank you for your letter of 17 August, about the relationship between OECD's work on the Environment and the proposed European Environment Agency. The Prime Minister has noted this.

yours sincerely

CHARLES POWELL

Miss Kate Bush,
Department of the Environment

MRM

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cc PC

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

25 August 1989

Dear Kate,

INTERNATIONAL ENVIRONMENTAL ISSUES

Thank you for your very full letter of 23 August covering a range of international environmental issues. I have discussed further with the Prime Minister the possibility of her addressing the United Nations General Assembly on environmental issues this autumn, and she has expressed her readiness in principle to do so, subject to:

- being able to find a convenient date. If possible she would want this to be after the Lord Mayor's Banquet and the State Opening of Parliament.

- an assurance that others - notably your Secretary of State, Professor Pearce and Sir Crispin Tickell - will be able to make a substantial contribution to a draft. She would find it helpful to see an outline as soon as possible.

I should be grateful for further advice.

I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), Alex Allan (HM Treasury), Stephen Craine (Department of Education and Science) and Trevor Woolley (Cabinet Office).

Yours sincerely,

Charles Powell

CHARLES POWELL

Miss Kate Bush,
Department of the Environment

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10 DOWNING STREET

LONDON SW1A 2AA

24 August 1989

From the Private Secretary

Dear Kate,

NEW POLLUTION CONTROLS: PUBLIC ACCESS TO INFORMATION

Thank you for your letter of 18 August attaching the draft consultation document your Secretary of State would like to publish next week.

The Prime Minister has seen this and is content that he should go ahead with publication.

I am copying this to the private secretaries of the members of EA, to Bob Peirce (Foreign and Commonwealth Office), John Colston (Defence) and Trevor Woolley (Cabinet Office).

Yours sincerely,

Caroline Slocock

CAROLINE SLOCOCK

Ms Kate Bush
Department of Environment

KK

(1)

10 DOWNING STREET

Prime Minister

If you decide to do the UN speech, we should be able to look to Chris Patten, Crispin Tickell & Professor David Pearce for a good draft. I rather favour the idea, & think it would be helpful politically here.

C.D.P.

RESTRICTED

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Prime Minister

A useful round-up of action being taken on points covered in your talk with Crispin Tickell. You will recall that Mr. Patten strongly suggested that you should address the environmental issues on this occasion.

C D Powell Esq
10 Downing Street
LONDON
SW1A 2AA

23 August 1989

Dear Charles

INTERNATIONAL ENVIRONMENTAL ISSUES

Thank you for sending me copies of your letters of 28 July and 2 August about the Prime Minister's talks with Sir Crispin Tickell.

The Secretary of State is keen that the UK should whenever and wherever possible take the credit which the Prime Minister has gained for us for advancing the international debate on global climate change. Our early support for working through UNEP and the Inter-Governmental Panel on Climate Change (IPCC) has paid off handsomely. The IPCC has established itself as the major international forum and it is now well supported by both developed and developing countries: the UK's Chairmanship of the Science Group should ensure a firm basis for the World Climate Conference next year; our announcement of support for a framework convention has proved critical within the Response Strategy Working Group. There are thus ample opportunities to take forward the points in your letters and the Secretary of State is planning to talk to Sir Crispin when he is in the UK in early September.

Economic Aspects of the Environment

As you know, the Secretary of State has appointed Professor David Pearce as his Special Adviser and we are delighted by the response to his report on Sustainable Development which we launched this week. We are asking Professor Pearce to consider whether the interdepartmental paper which was the basis for our successful initiative at the Paris Summit could be expanded into a publication of more general interest, possibly as one of our Environment in Trust leaflets. We will also be developing proposals for taking the work forward in the OECD, in the IPCC and (as stressed at the Summit) as an input to the 1992 UN Conference on Environment and Development. The Treasury, as well as other interested Departments, will of course be closely involved.

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Funds for Environmental Research

Following the Prime Minister's meetings, the Department's commitment to research on global climate change has been thoroughly reviewed. In the context of this year's Survey, the Secretary of State will be proposing a substantial increase in resources, partly for work on effects but also to set up a new Climate Change Centre at the Met Office in order to maintain our world lead in modelling. The balance of priorities is of course a matter for the Research Councils, but the Department's Chief Scientist will be pressing hard for greater priority for environmental research. We are pleased to see from John Fairclough's letter of 8 August that he too is arguing along these lines.

UN General Assembly

The Secretary of State warmly supports the idea of the Prime Minister attending the General Assembly. This was floated informally by our delegation on their return from UNEP's Governing Council where it became clear that this year's environment debate in New York would be of crucial importance. Since UNGA will be used to promote the themes of The Hague Declaration the Secretary of State believes that a Prime Ministerial speech would offer a strong and positive counterbalance. He would not expect it to concentrate solely on climate change: it could cover other areas where the UK has a better track record than many other Western countries - our high commitment on tropical forests; our initiatives on the ozone layer; our lead on the economics of sustainable development; our work on energy efficiency; and our wholehearted financial and political support for strengthening UNEP. The Secretary of State has however commented that to make a major impact the speech would need to announce some new and concrete steps, possibly aimed at better tackling the environmental problems of developing countries.

Population Growth

The Secretary of State agrees on the need for fuller account to be taken of the implications of population growth. Indeed, if population growth were greatly to exceed 10 billion at the end of the next century it might not be possible to contain man-made climate change. However, the issue requires great sensitivity and is undoubtedly best conducted in the overall framework of sustainable development. Next year's Ministerial meeting in Bergen on the Brundtland Report could be a promising forum in which to develop our ideas. Sir Crispin's immediate concern on the effects of climate change on human habitation should be well covered in the IPCC Impacts Group under Soviet chairmanship.

Our Own Forests and Woodlands

The Secretary of State is familiar with UK's good record on forest management. He is not persuaded that further home based initiatives in a temperate climate would have any great impact on those facing quite different problems in conserving tropical rain forests. Nevertheless our efforts in this sector could be presented more positively.

International Environmental Institutions

The Secretary of State has read Sir Crispin's speech and is looking forward to seeing the assessment being prepared by this Department and the FCO on strengthening UNEP and improving the UN's response to global environmental problems. He is concerned that the UK should continue to take a constructive role in preparing for the 1992 UN Conference, on which a good start was made at UNEP's Governing Council. It will be essential to build up good will with developing countries and to convince them of the need for co-operation in achieving sustainable development. Vigilance will be needed to avoid the twin dangers of environmental dictatorship from the industrialised countries and confrontational demands from developing countries for more aid, debt forgiveness, a new international economic order and so on.

Energy Conservation Paper

After the Prime Minister's seminar Ministers concluded that it would not be appropriate to publish the individual papers, although as Dr Currie's paper has been deposited in Parliament we have no objection to its being in the public domain. The ideas of the paper are however being carried forward by the Department of Energy who have taken the lead in the IPCC in proposing to draw up a country case study.

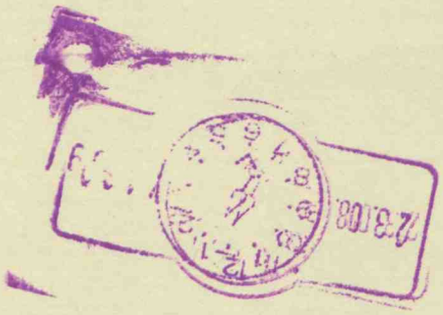
I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), Alex Allan (HM Treasury), Stephen Craine (Department of Education and Science) and Trevor Woolly (Cabinet Office)

Yours

CEJ Bush

KATE BUSH
Private Secretary

ENV AFFAIRS and Rur PT II



PRIME MINISTER

THE PEARCE REPORT

Referred to obliquely in the personal note from Chris Patten (also in your box tonight) is the report to Government by Professor Pearce (who is now Chris Patten's Special Adviser) on sustainable development. This report caused a favourable stir in the media when it came out whilst you were in Austria.

I attach the executive summary of the report which you might like to glance through so that you are familiar with it if Chris Patten refers to it when you next meet. I have a copy of the full report which I have read but I would not recommend your doing so: it is in the tradition of learned economic tracts - fairly turgid and repetitive. Its philosophical basis is right: price must be a better mechanism than armies of regulators to secure a sound environment. But for the rest I think the media stir was over done. The report addresses the common - though never easy - question of how to put a price (or how to create a market) in a public good like the atmosphere or the environment's "waste sink" capacity. Some of the detailed methodology in his report will be of interest to the Treasury group which is charged with following up and developing the G7 paper on economics and the environment. But Pearce's conclusions are weak. He proposes simply looking further into fiscal incentives (e.g a carbon tax) or transferable permits to pollute (which Nick Ridley made reference to in your earlier Ministerial meetings and, while they introduce a greater market discipline, are still a variant on the command and control means of enforcing environmental standards).

DOMINIC MORRIS
22 August 1989

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RETURN TO C/E

EXECUTIVE SUMMARY

from the report of the

LONDON ENVIRONMENTAL ECONOMICS CENTRE

IIED
INTERNATIONAL INSTITUTE FOR ENVIRONMENT AND DEVELOPMENT

LONDON ENVIRONMENTAL ECONOMICS CENTRE

UNIVERSITY COLLEGE LONDON
UCL

SUSTAINABLE DEVELOPMENT, RESOURCE ACCOUNTING AND PROJECT APPRAISAL; STATE OF THE ART REVIEW

EXECUTIVE SUMMARY

from the report of the

London Environmental Economics Centre

June 1989

1. The terms of reference for the authors of this report was:

> 'to review the state of the art on the relationship between the sustainable development concept, national accounting, resource accounting, satellite accounting and project appraisal procedures' and 'to provide an authoritative position statement drawing on national and international experience, where relevant, as a background to developing a UK programme of work in this area.'

2. The Bruntland Commission firmly established the concept of 'sustainable development' as the basis for an approach to economic policy in which the maintenance and improvement of environmental quality play a fundamental role[1].

3. In this report it is shown that sustainable development does have implications for the way economic progress is recorded (resource accounting), for project appraisal, for the pricing of inputs and outputs of goods and services in a free market economy and for macroeconomic policy relating to growth, trade, foreign investment and foreign aid. Conversely, the economic analysis of sustainable development sheds some useful light on the concept itself and provides a framework for implementing it.

(Preface)

4. Sustainable development involves a substantially increased emphasis on the value of natural, built and cultural environments. Furthermore it involves a concern with the longer time horizon than is conventionally looked at in economic analysis. In this way it places an emphasis on intergenerational equity and on the fair treatment of future generations.

5. The issue of intergenerational equity is at the heart of sustainable development. Future generations should not be left worse off as a result of present policies. To ensure this does not happen they must be left with at least as much capital wealth as the present generation. Moreover, the form of this wealth may be important. A distinction is made between man-made capital wealth and environmental capital wealth. Whereas some economists have argued that sustainable development can be achieved by ensuring that total capital wealth does not decline over time, others have taken the position that, in addition, environmental

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[1] World Commission on Environment and Development, Our Common future, Oxford university Press, London, 1987.

Future generations have the right to the fair treatment that we look for ourselves

capital must also be transferred in its entirety to future generations to ensure sustainable development.

6. Sustainable development emphasises the interaction between the economy and the environment. The way the economy is managed impacts on the environment and environmental quality impacts on the performance of the economy. This interaction is absolutely fundamental to sustainable development thinking.

7. If these concerns are to permeate practical decision-making and policy analysis, resources and environments have to be valued in terms of their economic functions. Moreover these values have to be correct, credible and integrated into economic policy.

8. The policy pursued with regard to the environment can be viewed as either anticipatory or as reactive. As the terms suggest, the former involves anticipating problems and incurring costs in advance of the problems occurring, whereas the latter involves waiting until the problem has surfaced before taking a decision as to what to do. The philosophy of sustainable development tends to favour strongly the anticipatory approach to environmental policy. But reactive policy is not wholly bad. It can sometimes be justified by reference to the expected gains in information and improved policy effectiveness. However, delay is only justified if the benefits outweigh the costs: good scientific research needs to accompany delay.

9. The essential issue here is one of uncertainty. There are really no rules for choosing which policy to undertake in the face of uncertainty. However considerations of risk aversion, and the fact that current environmental problems could involve very large losses, mean that, in many cases, an anticipatory policy is likely to be favoured over a reactive one.

10. One area where environmental effects could entail large losses is with regard to global pollution. This presents a special problem for several reasons. If its worst effects are realised, some countries will experience catastrophic damage. No one country acting alone can do much to prevent or contain these impacts. Only coordinated international action can be effective. However, the costs of such action are high and it is not in the interests of all countries to participate in such action; some countries may even gain from some developments such as global warming.

11. Global warming, or climate change in general raises issues of uncertainty at the scientific and socio-behavioural level. It is not known what the average global temperature change and sea level rise will be, nor what the spatial and regional distribution of these impacts is likely to be. The effects of these changes will, in turn, depend on how people respond to climate warming and sea level rise and on the kinds of actions that governments take. All this suggests strongly that there has to be a great deal more scientific and socio-economic research on climate change.

12. International cooperation to contain greenhouse effects to an 'acceptable level' is vital and urgent. The urgency arises because of the nature of the risks if the worst outcome occurs; because the longer the delay the more the world is 'committed' to increased warming and hence increased damage; because future adjustment is likely to be expensive; and because the only form of containment is through international cooperation which will be complex and difficult to secure. Global pollution problems underline the need for anticipatory policy.

13. Apart from formulating policy in the context of specific environmental issues, sustainable development contributes to the major debates on the future course of economic development. One such debate, which was initiated in the 1970s is the one on growth versus the environment. Reviewing this debate in the light of this concept reveals that a number of the initial premises were false. Sustainable development tells us that environmental quality frequently improves economic growth. Hence the two are not always in conflict as was originally suggested. Secondly sustainable development shifts the focus from economic growth as narrowly construed in traditional attitudes to economic policy. It speaks of development rather than growth, of the quality of life rather than real incomes alone. Thirdly it recognises that where there is a real trade-off between economic growth and environmental quality it can be resolved by valuing the environment properly. In other words the choice is not between higher or lower rates of growth but between different ways of attaining growth in the economy.

(Chapter 1)

14. If the sustainable development is to be useful it needs to be defined carefully. It is important to define the term development first. Here it means something much wider than economic growth. It includes all factors that lead to increases in well-being and the preservation of existing freedoms, self-esteem and self-respect. Hence development and growth are not the same and so sustainable development and sustainable growth will not be the same.

15. Nevertheless economic growth, being a major source of increases in welfare or well-being, is an important component of economic development. In this regard it is important to note that, on the basis of historical experience, environmental protection has been comparatively 'cheap' in terms of forgone economic growth. If this remains true in the future, the implication is that, to the extent environmental quality is a vital feature of economic development, the objectives of growth and development can be compatible.

16. In the phrase sustainable development this then leaves the definition of the word sustainable. The term has been used in a variety of ways, which are reviewed in this report. However, it is defined here in two ways: either as meaning a non-declining welfare, or 'utility' for a society or as meaning a non-declining set of 'development indicators' over time. The distinction is

essentially one between the use of a single indicator of welfare and the use of a multi-dimensional indicator of that welfare.

17. Whichever of these definitions is chosen, there are a number of key implications of the term that need to be spelt out. First, if development is to be sustainable it must encompass a full appreciation of the value of the natural and built environments in terms of their contributions to people's well being. Second is its implication for intergenerational equity. As stated above sustainable development requires future generations to be left with at least as much capital as the present generation. Here, however, there is a distinction between those who define this to mean that the total value of capital must not decline over time and those who interpret it to mean that both environmental and man-made capital must each be non-decreasing over time.

18. Whichever definition is used one thing is clear: the valuation of environmental capital must be undertaken correctly so that the full value of the services provided by it are recognised. But, even if this is done, there are strong reasons for thinking that sustainable development will require environmental capital not to decline over time. This is the interpretation of sustainable development adopted in this report.

19. There are, however, a number of theoretical issues and problems of measurement which need to be addressed if the notion of the constancy of the capital stock is to be translated into practical terms.

20. Finally there is one direct implication of the definition of sustainable development that is often ignored. This is to do with the region over which the definition is applied. It may be that the industrialised countries are following a sustainable development path in the sense defined above, but that this path is sustained only because they are importing goods from poorer countries where the development is clearly non-sustainable. This suggests that some attention needs to be paid to the implications of the country's trade and aid policies on the sustainable development of its partners.

(Chapter 2)

21. If sustainable development is to be attained there is a critical need for the environment to be valued correctly. The difficulty with this is that many of the services provided by the environment are not valued through the marketplace. Although this makes the process of valuation more difficult, it by no means renders it impossible.

22. At its simplest what is being sought in the valuation of these services is some expression of how much people are willing to pay for them. Such measures automatically express not just the fact of preference for the environment but also the intensity of that preference. Instead of 'one man one vote', monetization quite explicitly reflects the depth of feeling contained in that

vote. It also permits comparison of those benefits with other benefits and other costs.

23. The framework within which such a valuation is carried out is referred to as cost-benefit analysis. Cost benefit analysis (or CBA for short) makes operational the very simple, and rational idea that decisions should be based on some weighing up of the advantages and disadvantages of an action.

24. There are several techniques for valuing environmental goods and services when these are not directly provided through the marketplace. This report reviews them and provides examples of their application in the valuation of particular environmental facilities. Although the numbers obtained can be criticised, and are often no more than orders of magnitude, there are extremely useful in a policy context. First they establish that environmental services are not free. Second, by trying to value the environment, the policy maker is forced to think in terms of gains and losses. This provides a rational framework for decision making. In this context the environmental values can be important in determining the scope and design of certain key investments.

25. The process of valuing the environment also makes one aware that some items cannot be valued in money terms. However, that is altogether different from saying that they are 'priceless' or have infinite worth.

(Chapter 3)

26. Two key sources of information for recording economic progress and evaluating sustainable development are the national accounts and the environmental statistics. In UK the former are reported in the United Kingdom National Income Accounts which measure GNP and its constituent parts. These accounts say little or nothing, however, about the environment. The latter are surveyed in the Department's Digest of Environmental Protection and Water Statistics. Although these statistics are very useful as guides to some of the trends in the environment, they say little or nothing about the economy.

27. Since sustainable development is about integrating the environment and the economy, it is noteworthy, therefore, that the two main sources of information in this country fail to develop the important linkages between the two. In chapter 4 the ways in which these linkages might be presented are discussed.

28. Adjusting the national accounts would mean constructing a measure of sustainable income. This would require the careful measurement of : (a) the 'defensive' expenditures undertaken by households and firms to mitigate the consequences of environmental pollution, and not treated as intermediate expenditures in the construction of the national accounts, (b) the costs of the pollution that exists but is not mitigated and (c) the depreciation that has taken place in the environmental and natural resource base but not accounted for. Such a measure

measure of sustainable income is worth pursuing, to be calculated and presented alongside the conventional measures on net national income. Attempts to do this have been made, in one form or another for the United states, Japan, and Indonesia. The exercises are all interesting and show, in some cases a significant difference between the 'sustainable' income measure and the normal net national income measure.

29. There are, however, a number of theoretical and empirical issues regarding the measurement of defensive expenditures and of depreciation that are still not fully resolved. Hence any attempt to measure sustainable income would have to take a position on these questions before such an exercise can be undertaken.

29. An alternative approach to presenting the environment-economy linkage is to construct a system of physical environmental accounts. This has been done in France, Norway and, to some extent, in Canada, and presents stocks and flows of environmental variables in physical units. Developing such a system of accounts in this country would require considerable resources. Although the outcome could be of considerable benefit in forecasting environmental pollution and natural resource use, it is unclear, on the basis of the experience of the countries cited above, whether it would be worth the cost involved.

30. Supplementing the existing environmental statistics, to show more clearly the linkages between the economy and the environment, could achieve to a considerable extent what a system of physical accounts would do. Some recommendations in this regard are made in Chapter 4.

(Chapter 4)

31. As far as project appraisal is concerned, the implications of sustainable development are fairly straightforward. The first implication repeats the message that environmental economists have been familiar with for a long time and which has been carried forward to a sophisticated level in the USA. This is that environmental costs and benefits must be included in all project appraisals and that a major effort be made to place monetary values on environmental services and damage.

32. In fact this recommendation is not that novel and appears to have been assimilated in a modest way in various public agencies. It would, however, be advisable for the Treasury to update its guidelines with more explicit advice on ways in which monetary valuation techniques can be used to assist project appraisal.

33. The second implication of sustainable development is not so clear. Recall that sustainable development is to do with maintaining a constant environmental capital stock over time. To ensure that project appraisal is consistent with this objective one should proceed in two stages. First a project is acceptable if it passes the standard 'cost-benefit' test (i.e. that benefits exceed costs). Second, the programme of which the project is a

part should itself be subject to a constraint that it does not, overall, produce a net reduction in the value of the stock of environmental capital. At the policy level it means altering the balance of investments so that, included in the programme of investments, are some that compensate for any environmental loss caused by the others. Note that this requirement is additional to the first one that the project be properly valued and that it satisfy the cost-benefit test. Both requirements are needed if the sustainability objective is to be honoured. How such a double requirement would work should be the subject of further work.

(Chapter 5)

34. No discussion of sustainable development would be complete without mention of the discount rate. The discount rate seems to discriminate against future generations, yet it is their interests that are to be protected in a sustainable development approach to economic policy. This has given rise to many proposals to lower discount rates on environmentally beneficial projects (e.g.afforestation) and on projects where there high potential future environmental costs (nuclear waste storage, climatic effects of coal-fired power stations etc.). Although these concerns have considerable validity, adjusting the discount rate is probably not the best way of meeting them.
Lowering discount rates for all investments could encourage more overall investment compared to current consumption. This might seem to satisfy the desire to leave future generations a higher total capital stock, but it will also 'drag through' more materials and energy in the economy, causing more environmental degradation.

35. An alternative solution that has been proposed is to have one discount rate for environmentally beneficial or damaging projects, and another for projects without significant environmental consequences. In this case, however, there are formidable problems of deciding which projects to select. More seriously, how much of a change should take place would be horrendously difficult to decide.

36. In Chapter 6 it shown that neither of these alternatives is desirable. Furthermore, altering discount rates should not be necessary as long as the valuation and sustainability conditions are honoured in project appraisal. If, for reasons of practicality or otherwise, that can not be the case, then a further investigation into the practical ways in which discount rate policy might be modified is the second best option. However, at a time when there are other arguments for raising discount rates (i.e. the higher private rate of return on capital now being enjoyed) the preference to opt for the valuation and sustainability approach to project appraisal remains strong.

(Chapter 6)

37. Finally, this report addresses the issue of incentives for sustainable development. If sustainable development is about safeguarding environmental quality, then there is a case for making a stronger commitment to the setting of stricter environmental standards. That is already taking place as the concerns about acid rain, CO_2, ocean pollution and loss of habitat growth.

38. The UK approach to standards setting is, somewhat incorrectly, described as 'command-and-control'. This is unfair because in the UK there is a regular interchange of views and advice between polluter and regulator, whereas command and control tends to imply a somewhat more severe approach to offenders.

39. However, very little use is made of economic incentives in the UK, which stands in contrast to the particular virtues that markets have in environmental policy. In particular, using the market means reaching the ultimate polluters - the consumer. For in a market economy it is the consumer who dictates what is produced. The rise of the 'green consumer' indicates just what power the consumer has to influence the polluter to curtail pollution. But consumer cannot always be easily informed about the 'pollution content' of the goods and services he or she buys. The best way to signal that to the consumer is to make the polluter pay which means setting charges on products and resources so that their social cost is reflected in the price. Clearly designing 'optimal' taxes of this kind is complex and controversial, but progress in this area of market-based incentives is long overdue. Ideally such changes should relate to the monetary value of the damage done, but even if that cannot be estimated reliably, charges still have another vital use: they may be cheaper than the approach which sets standards and then tries to regulate the polluter.

40. One such tax that is discussed in some detail in the report is a carbon tax as a means of combatting global warming through the release of greenhouse gases. There are several complex issues to consider with such a tax and the ideas involved are new in the area of public policy. However, they need to be given careful consideration, in view of the potential seriousness of the problem.

41. The 'cheapness' of charges is a potential feature of market-based incentives which is shared by another approach: marketable permits'. Here the polluter is granted a permit to pollute and the number of permits is related to the environmental standard set. The particular feature of such permits is that they are cost-effective. They keep down the cost of complying with environmental standards. There are powerful reasons for being concerned about this cost-effectiveness attribute in respect of sustainable development. Future environmental problems threaten to be more costly to resolve than past ones. The prospect of costly clean-up and preventative measures could readily mobilise legitimate concern about those measures, constraining environmental policy and preventing it from being effective. Yet

if it is possible to secure environmental quality objectives, while at the same time minimising the cost of achieving them, much of the potential objection to improved quality could be removed. For this reason alone a much more serious consideration of market-based incentives, as an additional approach to achieving future environmental quality, is recommended.

(Chapter 7)

CCRC/ PU?

OVERSEAS DEVELOPMENT ADMINISTRATION
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From the Minister

18 August 1989

C D Powell Esq
Private Secretary
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LONDON SW1A 2AA

COP o/r

CDO 24/8

Dear Charles,

INTERNATIONAL ENVIRONMENTAL ISSUES

File with PM

In your letters of 28 July and 2 August to Stephen Wall about the Prime Minister's talks with Sir Crispin Tickell, you invited views and advice from Departments concerned.

Stephen Wall is responding on the idea of a speech on environmental issues by the Prime Minister at the United Nations General Assembly in the autumn.

We have the following comments on other points which concern the Overseas Development Administration:-

Your letter of 28 July: First Point

We agree that more should be made of work on environmental economics. ODA has commissioned, and plans to have ready by the middle of next year, a practical manual on how environmental concerns are incorporated into the economic appraisal of aid projects. A workshop of interested economists hosted by the Overseas Development Institute is planned for the turn of the year to discuss progress. This will help to identify gaps in current research work, and highlight any new areas worth considering.

The ODA is paying for a study to identify and quantify the causes of environmental degradation in Nepal, to estimate their costs and suggest policy approaches to alleviate future damage. This study is already proving useful to the Nepalese in their planning. Mrs Chalker wants to consider similar studies in other developing countries.

/Second Point

Second Point

Earmarking funds for environmental research can have a perverse effect if it discourages environmental work within existing disciplines. That said, ODA is currently examining areas for further research, subject to resources being available, most obviously in relation to climate change. ODA's primary focus has been on forestry. Spending on centrally funded research in 1988-89 was £840,000 and will exceed £1.25 million this year. Many of our bilateral forestry projects also have a research component. Subject to resources being available, we also plan £3.3 million of additional forestry research over a three year period.

The ODA is exploring with the Meteorological Office and the DoE the possibilities for increasing developing country participation in climate research.

Fourth Point

We agree that more work is needed on the enviromental implications of population growth. The link between environment and population growth should be looked at as part of the IPCC process, although none of the working groups have yet done so. There is a limited amount of work in hand elsewhere on the subject, but there is no overall agenda. The World Bank may be best placed to set it up at present in conjunction with the UN Population Fund (UNFPA) and UNEP. We might want to consider whether, as part of the process to strengthen UNEP, we should encourage them to take the lead, in due course.

Bilaterally, we are arranging an international conference here on Flooding in Bangladesh, for December.

Your letter of 2 August: First Point

It is certainly true that positive domestic action strengthens our hand when promoting international and developing country activity.

Second Point

Ministers agreed a paper just before the Paris Summit on the UK Position on an International Climate Fund, which was forwarded to 10 Downing Street by Myles Wickstead on 12 July. A further copy is enclosed. The paper and annexes set out the case for using and developing existing institutions and so resist pressure for a separate fund.

I am copying this letter to recipients of yours.

Yours sincerely,

David Hope.

(D J Hope)
Private Secretary

UK POSITION ON AN INTERNATIONAL CLIMATE FUND

Problem

Following his attendance at the Helsinki Meeting to review the Montreal Protocol on CFCs and in the light of the PM's seminar on climate change, the Secretary of State for the Environment wrote to the Prime Minister making certain proposals. In reply the Prime Minister agreed that we should develop "a robust and defensible position for ourselves, and as far as possible an agreed position with other donor countries, on proposals which are increasingly coming forward from elsewhere for climate funds to help developing countries".

2. The proposition of a CFC fund is already under review following the Helsinki meeting in May. The Intergovernmental Panel on Climate Change (IPCC) is tasked with looking at response strategies, and has called for papers to be submitted by 15 August on the financial implications. President Mitterand is likely to raise the issue of a climate/environment fund during the Paris Economic Summit.

Proposed UK line

3. The UK should say publicly that we

- accept in principle that developing countries do not have sufficient resources to solve their own local and regional environmental problems let alone to contribute to solving global environmental problems at the speed or on the scale likely to be necessary;

- accept in principle that developing countries may have different priorities (reflecting their own economic and environmental circumstances and objectives) from those of developed countries which can afford to take action now to deal with concerns about global environmental matters;

- reject the notion that developed countries should make financial amends to developing countries for past global environmental pollution, but accept that developed countries will need to be prepared to channel additional resources (private and public) to developing countries. External resources are needed in order to reinforce the latter's ability to address environmental issues and to ensure that the priorities for action include things of global as well as local importance;

- reject the notion that additional institutions are needed and instead press for help normally to be channelled through existing multilateral and bilateral funding arrangements. Any action needed to adapt existing machinery should be taken within the framework of the agreed protocols to be negotiated under the Climate Convention proposed by the UK in May;

- will determine the scale of the UK's own contribution to a global effort in the light of;-

  our domestic public expenditure priorities,
  the response of other developed countries,
  the evolution the further scientific and economic work which is in train
  and our bilateral relations with key developing countries.

(Ministers should bear in mind that, if the UK is to play a lead role in the formation of policy and decisions on action, it will need not only to be skilful in its presentation, but will also have to be prepared to make a fairly substantial contribution on top of anything that the private sector will be willing to contribute through its own investment strategies. The Secretary of State for Foreign and Commonwealth Affairs has accordingly included an element for this in his PES bid.)

Rationale

4. The issues arising from concern about global climate change present a new challenge to the world community. The challenge is made much more complicated by the high degree of uncertainty which surrounds predictions about the effects, especially at the regional level. However, it is apparent that action only by countries already convinced of the need, will not be sufficient to slow down the build-up in greenhouse gases and the destruction of trees and other organisms which absorb and lock up carbon for long periods. The predictions of the existing global climate models show that responses are needed even before the models have been perfected if unacceptable levels of warming are to be avoided. Thus worldwide cooperation is required to confront a truly global environmental issue - one where the costs and benefits of action do not respect national or regional frontiers.

Argument

Summary

5. This paper looks at the developing countries' capacity to join in that cooperative action and at their likely willingness to do so in view of their other priorities for their limited resources. It concludes that additional external resources will be required to ensure that developing countries take action within the time frame required. Those resources will need to be spread over a wide range of environmental problems. Calls for "compensation" (the notion that developed countries should make financial amends to developing countries for past environmental pollution which has reduced future development options) should be rejected. The paper makes the case that resources should be applied not only to climate change but to the related global environmental issues; depletion of the ozone layer and loss of genetic resources. It looks at possible sources for external finance and concludes both the public and private sectors have roles to play. It goes on to examine the existing aid channels for tackling environmental problems. It looks at the possibilities for strengthening and adapting these to make a more effective contribution to resolving the full range of problems. It

reaches the view that existing institutions should be able to cope. It thus rejects the case for a new general global environmental (or climate change) fund administered by a new institution.

Constraints on developing countries

6. Developing countries are characterised by heavy reliance on natural resources, poverty and burgeoning population pressure. The resource base is often fragile. Poverty and population pressure are themselves causes of local environmental degradation which in turn exacerbates both. Where population pressures are increasing faster than peoples' ability to adopt new resource use patterns, marginal lands are often made unproductive. Poverty limits peoples' capacity to invest in change or to take the risks inherent in doing so. Developing countries' ability to grow out of this vicious spiral is often restricted by foreign exchange shortages and heavy debt burdens. They even find it difficult to finance investments with obvious short-term national benefits. To the extent that immediate national priorities, for example reafforestation and rational energy policies, have spin-offs for climate change, developing countries can be expected to play their part in global action. However, the global good will not be a primary motivation for their decisions.

Differences in perception and developing countries willingness to tackle global climate change

7. Developed countries view the possible dangers posed by global climate change with the greatest concern. They have the resources required to take the action on their own behalf which is justified by the current state of scientific knowledge. They are conscious that policy decisions need to be taken early if the full impact of possible adverse climate change is to be avoided. They recognise the need to reduce the scientific uncertainties as rapidly as possible and have put considerable effort into the Intergovernmental Panel on Climate Change (IPCC) where Britain is playing a leading role. Other industrial countries are likely to welcome the work on environmental economics we will be advocating at the Paris Summit as another important step in tackling uncertainty.

8. Conversely, developing countries view unwelcome changes in the global climate as the result of action by the industrialised countries who have become rich in the process. Developing countries tend to believe that industrialised countries should pay for solving the problem. They are particularly suspicious of any solutions which appear to block their own pathway to development through traditional industrialisation and economic growth. Most developing countries do not consider global climate change as a current priority and regard uncertainty as a reason for delaying action. They have not shown much enthusiasm for the IPCC. They are much more preoccupied with the present economic difficulties facing them and with more immediate threats to their environment. These latter include urban and industrial pollution (particularly in Asia and Latin America), toxic waste (a political problem in Africa), deforestation and soil erosion. Even where developing countries concede that the potential cost of global climate change to their populations will be enormous, they are unwilling or unable to invest heavily in precautionary action. This may be perfectly rational if they believe they can generate sufficiently rapid growth today more easily to afford action tomorrow.

9. The division between industrialised and developing countries is not clear cut. To the extent that they are known the views of individual countries are in Annex A.

Encouraging cooperation

10. Given the different view-points and stages of development it is apparent that precautionary action to minimise risks will be acceptable to industrialised states but not to developing countries. To achieve the worldwide action required in the face of scientific uncertainty, industrial countries must expect to contribute to the costs involved for developing countries. Such external help will need to be additional to existing aid flows which are used to finance investments which countries regard as a higher priority for creating wealth or reducing poverty. In any case, the solutions to their central development priorities-such as poverty, excessive population growth and lack of economic growth-can contribute to the reduction of global warming.

11. Respect for the priorities of developing countries does not mean that the industrial world must concern itself with the whole of the developing countries' agenda. A skilful combination of help with local environmental concerns and resources for global environmental programmes, could provide the basis for constructive partnership between developed and developing countries. Such a partnership should minimise the risk of prompting the developing countries to press for some kind of compensation for the consequences of past pollution caused by the developed countries. In essence the advocates of compensation are seeking agreement to a retrospective version of the 'polluter pays' principle. Acceptance of their case would have wide ranging and unwelcome implications.

Scope of Cooperative Action: Climate or Global Environment Focus?

12. The arguments for help with respect to one global environment issue, climate change, apply equally to others where environmental costs and benefits do not respect national or regional frontiers. There are two other current issues of this kind. One is depletion of the ozone layer by CFCs, which has effects not only on climate but which could be successfully tackled as part of a programme to prevent climate change. The other is loss of genetic diversity through the destruction of genetically rich areas such as tropical forests, wetlands and coral reefs. Conserving all three would help to lock up carbon, and, in the case of mangroves, would help protect low lying areas from more frequent storms expected through global warming, so again a climate connection can be adduced. Nevertheless, both ozone depletion and genetic diversity are important global environmental issues in their own right. Those wanting a new environmental funding mechanism will pray them in aid. By recognising their importance from the outset, the UK can enhance its "green" credentials and ensure that the debate about funding mechanisms is not side-tracked by arguments about the scope of the issues to be covered.

Sources of External Finance

13. Four possible sources are available; private sector investment, international taxes and levies, the proceeds of "debt-for-nature" swaps and aid programmes.

14. The private sector is unlikely to opt voluntarily, to use more expensive technology for investments in developing countries, especially if the environmental reasons for so doing remain unproven. Similarly, developing countries will be reluctant to bring in and enforce the legislation required to compel private sector action unless it can be made financially attractive for them. Nevertheless, there is scope for persuading industry that offering environmentally friendly technology to developing countries will allow companies to gain an advantage in markets of future significance.

15. Internationally agreed earmarked taxes or levies are a possible funding source which is already under discussion for tropical timber. More generally, however, the UK has traditionally been against hypothecating revenue and international agreement would in any event be extremely difficult.

16. The Prime Minister's meeting on 19 April considered the possible role of debt-for-nature swaps and concluded that voluntary swaps might have a role to play, but that it would be wrong for the taxpayers of developed countries to bear the costs of writing off commercial debt.

17. The remaining source of additional external resources is international aid. This has the advantage of being able to tackle village level projects which are unlikely to be of interest to international investors.

Development aid channels

18. Any additional public resources to be mobilised by the developed countries must be effectively delivered. There are essentially three options;

greater use of existing mechanisms,
a new fund covering all environmental issues,
or a new fund limited to problems not covered by existing institutions.

The choice between them depends on their likely success in persuading developing countries to join international action, their acceptability to donors, the range of issues to be tackled and the coverage and effectiveness

19. Annex B lists the key underlying issues in developing countries, global environment problems and the local environmental concerns of the third world. It describes current efforts being made to deal with them. It also identifies work not at present being handled by existing institutions. The most notable deficiencies identified are:

- consideration of the global environmental implications of energy choices.

- consideration of the national and global environmental implications of transport and industrial sector policies;

- developing country scientists are insufficiently involved in research on climate change which makes it unlikely that their Governments will take the conclusions seriously;

- efforts to conserve genetic resources are very modest and are split amongst a number of agencies;

- no research is underway on the methane implications of different agricultural systems;

- environmental monitoring is in its infancy in developing countries;

- no work has yet begun on helping countries investigate strategies for avoiding CFCs although financial resources have been offered for this.

However, we judge existing bilateral or multilateral institutions as capable of being strengthened or adapted to handle these deficiencies.

20. Use of multilateral channels for some of the additional funds will require agreement by other donors and by recipients, but is essential for significant coordinated action. In any case, only multilateral channels can provide sufficient political visibility to ensure developing countries accept that additional resources are being made available. Agreement to alter existing mandates or create new ones could most easily be reached

under the umbrella of a Climate Change Convention. Where the remits of weaker multilateral institutions require adaptation or extension, careful work will be needed to ensure that they could realistically be expected to handle the tasks satisfactorily.

21. Use of existing channels will avoid the delays and additional overheads inherent in the establishment of new institutions. It is also likely to make best use of the scarce analytic expertise available for environmental problems. Nevertheless, increasing their tasks does imply re-examination of the general donor approach of severely restricting the increase in the administrative budgets of multilaterals.

22. Those who favour a new environmental funding mechanism do so because of a political assessment that it is the best way to convince countries that resources are truly additional. A new Fund would presumably aim to supplement the relevant activities of existing organisations and fund new types of programme. However, its supposed additionally could be largely illusory if existing aid institutions responded by running down their own spending on programmes which could be picked up by the new body. Forestry and energy efficiency are obvious examples. The net result might even be an overall switch of emphasis away from environmental concerns. Thus a wide-ranging Fund might not meet the political requirement.

23. A new Fund has the grave disadvantage that it could be seen as acceptance of the 'compensation' argument. If it were handled by a new institution, that would add to the complexities of the international aid machinery and to the difficulties of coordination. Moreover, depending on voting arrangements, a new institution might well reduce donor's influence over the handling of multilateral aid.

24. If, after consideration, there were found to be some highly specialised activity or concern not capable of being handled satisfactorily by present institutions, then some limited new funding mechanism might be required. This could be negotiated in the framework of individual protocols to a Climate Change Convention.

Scale of UK Contribution

25. The UK must be prepared to contribute additional resources itself if proponents of an environment/climate change fund are not to win the day. The size of that contribution will depend on domestic public expenditure priorities, the response of other developed countries, the evolution of the further scientific and economic work which is in train and our bilateral relations with key developing countries. There are initial signs that some countries, certainly including the Japanese, Dutch and Norwegians, are prepared to produce additional resources for these purposes.

26. ODA's existing multilateral and bilateral programmes already include a good deal of expenditure which serves these environmental objectives, along with others. Because it is multi-purpose, it is not possible to quantify precisely the amounts dealing with issues related to climate change. More will be needed to help implement our forestry initiative and do more in energy efficiency and CFC substitution. The Foreign Secretary has included a bid for £15 million, £40 million and £90 million in the three Survey years among his other Public Expenditure bids. Such expenditure would be justified in its own right, but would also help to fend off pressure for a less cost-effective UK contribution to a Climate Change Fund as part of our overall effort.

ANNEX A (MAED)

CLIMATE CHANGE: VIEWS ON THE NEED FOR FINANCIAL ASSISTANCE

1. At the London Ozone Layer Conference in April, China proposed a global fund to supply technology and assistance to developing countries to enable them to phase out the use of CFCs. India supported this proposal. The need for financial assistance to developing countries was further discussed at the first meeting of Parties to the Vienna Convention for the Protection of the Ozone Layer (and its Montreal Protocol) in Helsinki in early May. A Working Group was established at that meeting "to develop modalities for [international, financial and other] mechanisms, including adequate international funding mechanisms which do not exclude the possibility of an international fund." The Working Group will report to the second meeting of the Parties, in London in 1990. Norway's offer at the Helsinki meeting to contribute to a world climate fund (see below) probably provided the stimulus for calls in subsequent international meetings for a climate fund rather than a fund linked directly to CFCs and the Ozone Layer.

2. The following have made public offers to contribute to a world climate fund:

Norway

At the Helsinki meeting of Montreal Protocol Parties in May, Norway offered to contribute 0.1% of GNP (approx $100m) a year to an international climate fund under the auspices of the UN, provided matching contributions are made by other industrialised countries. This position was repeated at an OECD DAC meeting on the environment in June in a statement which stressed the need for others to match the offer.

Netherlands

At the UNEP Governing Council in May, the Netherlands announced she was ready to contribute up to 250m Guilders £72 million to a world climate fund, when such a fund is established. We understand the aid Minister would prefer to spend these resources which are already in the aid budget through existing mechanisms. The resources were provided for projects to help developing countries avoid contributing to the greenhouse effect.

3. At the UNEP Governing Council in May, the following countries commented on proposals for a world climate fund:

Mexico

Bilateral transfers were not enough. Financial resources should be channelled through the UN.

FRG

A working group should be established to consider the matter, as in the case of financial assistance under the Montreal Protocol on Substances that Deplete the Ozone Layer.

Brazil

Technology should be transferred at cost.

France

Low key call for financial resources to compensate affected countries.

India

Not concerned about the mechanism for the transfer of financial resources; the main problem was to ensure the transfer took place.

Paris Economic Summit

4. We understand Japan will announce a contribution of up to $150 million over three years for forestry projects to be channelled through the International Tropical Timber Organisation.

5. Papers prepared for the Paris Summit include:-

A. Canadian paper

"Environment and the Economic Summit: a Canadian Perspective" does not mention the proposal for a climate change fund but suggests the Summit could

> "call upon international financial institutions to develop new and innovative ways to help developing countries and strengthen their capacity to achieve environmentally sound development".

In private discussions Canadian aid officials have explained they would prefer to work through existing institutions but that the Foreign Ministry is making provision to contribute to a fund for political reasons.

B. French Thematic Paper III

Refering to the emission of greenhouse gases, the Thematic Paper notes reduction in CO emissions

> "would obviously call for far-reaching global measures in the energy and other industrial measures... Economic inducements should be developed to facilitate these evolutions."

In a reference to The Hague Declaration the Thematic Paper notes the Declaration signatories

> "emphasised the need to provide some assistance to those countries on which decisions taken to protect the atmosphere would prove to impose a special burden, in view of the level of their development and actual part in the deterioration of atmosphere."

C. German Paper

A German paper on "Protection of the Earthly Atmosphere" makes no mention of a climate change fund. The paper is primarily concerned with tropical forests. It advocates a "new institution" along the lines of The Hague Declaration and notes

> "In view of the global threats to the earth's atmosphere and their causes, the summit countries bear special responsibility vis-a-vis the international community. Acting in solidarity with developing countries and in collaboration with international institutions, they must take the decisions and measures needed to protect the earth's climate and atmosphere."

In recent private discussions aid officials have confirmed they would prefer to work through existing mechanisms rather than a climate fund. The call for a new institution seems to be aimed at giving political impetus to the Tropical Forestry Action Plan which is at present informal process.

6. OECD

The Communique issued at the conclusion of the Ministerial Council held on 31 May and 1 June states

> "Ministers agree that cooperation with developing countries is essential for the solution of global environmental problems. The OECD will evaluate relevant policy experience in Member countries. On the basis

of the information, the Organisation will seek to co-ordinate policies among member countries with a view to ..... the design of innovative approaches by development assistance institutions to environmental protection and natural resources management; and the integration of environmental considerations into development programmes taking into account the legitimate interests and needs of developing countries in sustaining the growth of their economies and the financial and technological requirements to meet environmental challenges."

7. Other soundings

Representatives of both the Swedish and American aid agencies have indicated they do not favour a separate climate fund. The Americans were noticibly non-committal when the subject arose at the UNEP Governing Council.

ANNEX B

ENVIRONMENTAL PROBLEMS, ACTIVITY BY EXISTING INSTITUTIONS AND FUNDING GAPS

SUMMARY

ENVIRONMENTAL PROBLEMS AND EXISTING AND POTENTIAL FUNDING MECHANISMS

UNDERLYING CAUSES

POPULATION: UNICEF, UNFPA, IPPF and many multilateral and bilateral aid agencies.

POVERTY: All aid programmes.

DEBT AND FOREIGN EXCHANGE CONSTRAINTS: IMF, World Bank, London and Paris Clubs.

GLOBAL ISSUES

CLIMATE CHANGE:

Carbon dioxide	Most existing aid agencies. Coordination by World Bank
Nitrous oxide	Most existing aid agencies.
CFCs	World Bank, ODA and other bilaterals.
Methane	Agricultural research institutions, and aid donors.
Monitoring	UNEP, WMO, World Bank.
LDC participation in research	IPCC, UNEP.

DEPLETION OF THE OZONE LAYER: World Bank, ODA and other agencies.

LOSS OF GENETIC DIVERSITY: FAO, World Bank, IUCN, UNESCO and other UN agencies CITES, IBPGR.

DEFORESTATION: TFAP, ITTO, existing donors.

LOCAL ISSUES

DEGRADATION: Existing aid agencies.

POLLUTION: Existing aid agencies, Basle Convention, FAO, UNEP.

INSTITUTIONAL CAPACITY: Existing aid agencies.

UNDERLYING PROBLEMS

POPULATION: The global population is currently 5 billion and is expected to stabilise somewhere between 8 and 14 billion depending on success in persuading the people of developing countries to adopt family planning. Success will depend on acceptance of individuals that they do not need large numbers of children to provide security in old age and is therefore closely tied to progress in poverty alleviation and sustainable economic growth. Thus all aid programmes may be said to contribute to slowing population growth. International programmes specifically targetted on the objective include those of the UNICEF, the UN Fund for Population Activities and the International Planned Parenthood Federation and most bilateral donors also contribute. There are no gaps to fill but programmes could be increased in scale.

POVERTY: The poor lack access to sufficient resources. They cannot invest the time and capital required for long-term sustainability and frequently live off environmental capital, which results in increasing degradation of sensitive areas. All aid programmes have poverty alleviation objectives so again the question is one of scale rather than gap filling.

DEBT AND FOREIGN EXCHANGE CONSTRAINTS: affect some countries' abilities to use their own resources for environmental protection though there is no guaranteed link between the relief of debt or foreign exchange shortages and positive environmental action. In some cases, notably in Africa countries have mined their forests on a short-term basis to earn the foreign exchange needed for debt servicing and the initial stages of structural adjustment. Carefully targetted structural adjustment programmes, international debt initiatives and negotiations in the London and Paris Clubs provide adequate mechanisms for dealing with the debt burden, although Latin American countries would argue that inadequate resources have been made available.

GLOBAL PROBLEMS

CLIMATE CHANGE: The cause of global warming is greenhouse gas emissions whose effects are made worse by the loss of carbon sinks particularly through deforestation, loss of forests and changing land use patterns are of special significance in developing countries and are dealt with below.

Greenhouse gases come from a number of sources. In developing countries the following gases are important:

Carbon dioxide. Net emissions and their sources are unknown but apart from burning of fuelwood (the primary heat source in the third world) and destruction of forests as land is cleared emissions must come from the same sources as in the developed world - thermal power generation, industry and transport. All 3 sectors receive large amounts of bilateral and multilateral aid but so far little thought has been given to greenhouse gas emissions in the environmental appraisal of projects although donors and recipient governments are increasingly concerned about energy efficiency.

The Energy Sector Management Assessment Programme (ESMAP) of the World Bank provides a framework for the assessment of energy policies at the national level and for encouraging efficient generation transmission and distribution of electricity. ESMAP does not at present include global environmental aspects in its analysis. ESMAP assessments can influence all donor agencies via ESMAP coordination meetings and individual recipients via World Bank participation in aid consultative groups. To the extent that efficient systems save resources, increased emphasis on carbon efficiency should be welcome to developing countries. However energy sector projects are a cause of much commercial competition amongst donors so strengthening the ESMAP process should be accompanied by donor agreement, probably in the Development Assessment Committee of the OECD, to environmental standards for energy projects. While the mechanisms exist, the scale of investment needed to make developing countries power sectors as efficient as those of industrialised countries or to encourage switching to fuels producing less carbon dioxide would be enormous.

In the UK 20% of carbon dioxide emissions are the result of industrial uses of fossil fuels and a further 20% comes from the transport sector. We are not aware of any analysis having been done for developing countries but both sectors are of increasing importance especially in Asia and Latin America. Nor are we aware of any international policy analysis of the sectors similar to the World Bank's ESMAP, although again donors provide significant sums for both transport and industrial development. While mechanisms do not currently exist there seems little reason why the World Bank, which is not only the biggest lender but also the centre of donor environmental expertise, should not be encouraged to look at the global environmental

impacts of current developing country transport and industrial policies. The UN Industrial Development Organisation (UNIDO) might also have a role to play. Again commercial pressures would require donors to reach agreement on guidelines for aid. Investments in greater combustion efficiency in industry and transport might be expected to pay for themselves but the initial costs could well be unacceptable to capital starved developing countries who might require additional aid to adopt green technology.

Nitrous oxide: To the extent this is a product of thermal energy generation, industry and transport, reductions in output growth could be achieved in the same way as for carbon dioxide as well as by specific mitigation measures such as the gas scrubbers and catalytic converters. Halting deforestation would also help to reduce nitrous oxide emissions. Thus multilateral and bilateral agencies are tackling the problem.

CFCs: Present use of CFCs by developing countries is not well understood but it seems likely that the major use is in refrigeration rather than in aerosols, packaging or as solvents. Donors including the World Bank and the ODA, have already offered aid for drawing up CFC substitute strategies for developing countries and for their implementation. The Helsinki Meeting of the parties to the Montreal Protocol agreed to look at all possible funding mechanisms to help developing countries meet present and future Protocol requirements. Industry will need to be involved in efforts to help developing countries but it is not obvious that additional mechanisms are needed. However, if substitutes for refrigerants (which will not be commercially available until the late 1990s) prove more expensive than domestic production of CFCs, developing countries may need additional aid to make the switch.

Methane: The rice paddies of tropical countries are a major source of global methane production as are increasing populations of livestock. Given the difficulties faced in increasing agricultural yields in line with population growth in many countries, there seems little point in trying to tackle tropical agriculture early in global efforts to reduce greenhouse gas emissions. Nevertheless there is scope for research to compare methane emissions from agricultural intensification and extensification. UK and existing international research institutions have the potential to undertake this work which could be financed by the donor community who are heavily involved in agricultural development. To the extent that livestock projects

are often aimed at increasing quality rather than quantity they may help to curb emission growth. Programmes aimed at using methane produced from biomass (particularly solid waste and night soil) for domestic energy generation also have a role to play and could be stepped up using existing mechanisms.

Climate Change Monitoring: Global environmental monitoring already takes place through the Global Environmental Monitoring System programme of the UN Environment Programme (UNEP) though coverage in developing countries is poor. Current international research based on remote sensing of the atmosphere and new research studying the oceans will provide information on climate of value to all countries. Nevertheless climate modellers may need more data from the overstretched meteorological services of developing countries. Discussions aimed at strengthening the African system are already taking place. They involve the World Meteorological Organisation (WHO) and are being coordinated by the World Bank. Existing mechanisms could be used to channel the resources required.

Developing Countries Participation in Research: The Intergovernmental Panel on Climate Change is concerned at the inadequate participation of developing countries in the Panel's work to date. A meeting will be held in Nairobi in late June to identify and overcome the barriers to such participation and funds should be available from the recently expanded UNEP budget. If these prove inadequate bilateral aid programmes could be used.

DEPLETION OF THE OZONE LAYER: Measures needed to encourage developing countries to avoid the use of CFCs have been considered above.

LOSS OF GENETIC DIVERSITY: The major cause is the loss of tropical forests which are home to at least half the world's species. It has been estimated that fully protecting 0.2% of the earth's land surface in 10 'hot spot' regions of primary forest would save from extinction 7% of the earth's plants and at least a similar proportion of the animals. Other areas of high diversity include wetlands (notably mangroves) and coral reefs. Combatting deforestation in general is considered below. For climate change and local environmental degradation through soil erosion and loss of soil fertility there is no reason to pay particular attention to areas of high diversity. In fact such areas are likely to be of more value to northern pharmaceutical companies, who do not at present pay royalties on the plants

extracted, than to the developing countries in which they are situated. Current discussions in the FAO aimed at recognising the rights of people to benefit from their contribution to the exploitation of genetic diversity might alter the equation. So might assessments of tourist potential but access often needs to be limited to avoid unacceptable species loss.

At present the international systems charged with identifying or encouraging protection of key areas in developing countries are the Ramsar Convention which covers wetlands of importance to birds, UNESCO's World Heritage Convention which covers unique natural and cultural areas and UNESCOs Man and the Biosphere (MAB) Programme which is establishing a global network of ecologically important areas which are intended to demonstrate mans interdependence with his surroundings. All three have modest funding mechanisms and the MAB programme is sufficiently well regarded that ODA continues to contribute to it through NERC.

The International Union for the Conservation of Nature and Natural Resources (IUCN), a union of conservation expertise, participates in all three programmes and could step up efforts to involve developing countries as fully as possible. IUCN could also be used to identify key forest areas and indeed will be making a special assessment of currently protected areas as part of the FAOs world wide tropical forest assessment in 1990. IUCN has produced a draft for a global convention on all aspects of genetic diversity which could provide a framework for reaching international agreement on protecting particular areas while respecting national sovereignty. In view of the sensitivities it might be better to channel any aid needed for the establishment of protected areas through an international body. The IUCN has a small project implementation branch which could be strengthened but in view of the voting structures in IUCN (which give a substantial voice to very unrepresentative NGOs) donors might prefer to channel funds through the World Bank or a UN agency.

International efforts to protect endangered species rather than habitats are organised through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Conservation of Migratory Species of Wild Animals (Bonn Convention). The International Board for Plant Genetic Resources (IBPGR) is an internationally funded organisation which seeks to promote the collection, documentation, evaluation, conservation and utilisation of genetic resources of important

evaluation, conservation and utilisation of genetic resources of important plant species especially where traditional varieties are under threat. The IBPGR funds research carried out by others and could be strengthened by the donor community. There is a need for a system similar to IBPGR for the conservation of animal genetic resources. The FAO recognises this and is addressing the problem notably by beginning to set up regional gene banks.

DEFORESTATION: is both a global problem through its effects on climate change and genetic diversity, and a local problem contributing to soil erosion, loss of soil fertility and flooding through rapid water run off. Efforts to counter deforestation are being made in most developing countries with more or less enthusiasm and almost all donor agencies contribute funding. International efforts are coordinated through the Tropical Forestry Action Plan which operates country by country and starts with a review of forestry policies to ensure that the framework for projects encourages a sustainable approach. The TFAP has succeeded in increasing donor and recipient funding for the forestry sector as a whole. The international community is now turning its attention to giving greater priority to forestry research and to agroforestry (the integration of trees in crop and livestock farming systems). A shortage of forestry expertise is emerging as a possible brake on greater assistance for the sector but there is no doubt additional sums could be spent productively.

Recently the International Tropical Timber Organisation has emerged as another channel for forestry assistance. The UK has tried hard to get ITTO agreement to a work programme concentrating on international issues such as the structure of trade and guidelines for commercial forestry which would complement the national focus of the TFAP. In the light of major Japanese funding provided to ITTO, whose headquarters are in Yokoha, care eill need to be taken to avoid duplication.

LOCAL ENVIRONMENTAL PROBLEMS IN DEVELOPING COUNTRIES

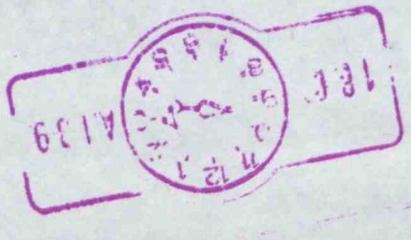
These include both problems of degradation (loss of quality in the natural resource base) and pollution (introduction of undesirable substances into the environment).

ENV AFFAIRS: Acid Rain
Pt 11

DEGRADATION PROBLEMS include dryland degradation (desertification) soil erosion, overgrazing, salinisation of soil due to poor irrigation practices and loss of soil fertility due to the removal of nutrients. All are being tackled with varying levels of commitment and success by local governments and donor agencies. More resources would undoubtedly help to combat degradation providing countries adopted sensible resource management policies. Donors and African countries are already working together to improve the policy framework. Problems are generally site specific and remedies depend on options for intensifying resource use elsewhere to reduce pressure on sensitive areas or finding appropriate technical solutions. There would be little to be gained from creating new mechanisms to deal with the problems.

POLLUTION PROBLEMS include pollution of land air and water through for example, industrial pollution, agro chemical contamination and over-rapid urbanisation. Again donors and recipients have programmes in place, are increasingly coordinating their efforts at the national level and could do more with greater resources. International mechanisms such as the Basle Convention on toxic wastes contain specific provisions for assisting developing countries. The FAO Code of Conduct on the distribution and use of pesticides and the UNEP Code on other toxic chemicals provide frameworks for assistance. New institutions would not make programmes more effective.

INSTITUTIONAL CAPACITY: Developing countries lack the legal framework, baseline data, monitoring ability and expertise to understand and address environmental problems whether global or national. Where environmental protection agencies exist they are underfunded and lack credibility or power. They are still regarded as a costly irritant by ministries planning development who fail to grasp the need for environmental sensitivity if long term sustainability is to be assured. Donors can and do use existing aid mechanisms to help increase public awareness in developing countries and to train local staff. These efforts could be strengthened. Local non-governmental organisations can provide an effective channel for increasing environmental concern and the public participation necessary for good decision making. However donors who operate largely through government to government channels are often reluctant to be seen to be funding southern environmental lobbies.



Prime Minister

Content for DOE to publish this consultation document?

Prime Minister!
Content to publish? CCPH
CDS 23/8

SECRETARY OF STATE FOR THE ENVIRONMENT

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Yes

The Government has already accepted the principle of access. This covers the scope and mechanics of access - and how to deal with sensitive information. It is proposed that costs will be covered in the charges to the operators. There will be no charge to the public.

Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

18 August 1989

I do not think you need to read through the document - although I attach it in case you wish to. I am not sure what the significance of paras 26-27 is, but they seem rather "throwaway" for such sensitive areas.

Dear Caroline

CDS
22/8

NEW POLLUTION CONTROLS: PUBLIC ACCESS TO INFORMATION
PUBLICATION OF CONSULTATION PAPER

I enclose a draft consultation paper on public access to the information which will be held by the pollution control authorities under the new pollution control systems to be introduced by the Environmental Protection Bill. An earlier draft has been circulated around Whitehall at official level, and the enclosed version takes account of the comments that were made. I am circulating it for final clearance to the private offices of E(A) members and other Ministers with an interest.

My Secretary of State intends to publish the consultation paper in the week beginning 28 August, together with the enclosed press notice. It is important to go out to consultation soon, in order to allow a reasonable opportunity for comments before the introduction of the Environmental Protection Bill. I would be grateful, therefore, to hear by the morning of Monday 28 August whether colleagues are content with what is proposed.

Copies go to Private Secretaries to members of E(A), to the Foreign and Home Secretaries, the Secretary of State for Defence and Sir Robin Butler.

Yours

CEJ Bush

KATE BUSH
Private Secretary

DRAFT PRESS NOTICE

PUBLIC TO HAVE NEW RIGHTS OF ACCESS TO INFORMATION ABOUT THE ENVIRONMENT

Mr Chris Patten, Secretary of State for the Environment, today announced that members of the public would have important rights of access to information held by the authorities under new pollution control systems.

The new rights of access are described in a consultation paper issued today. It is proposed that the enforcing authorities will maintain public registers setting out information about the operation of the new controls.

Mr Patten said today:

> "We are introducing two important new systems of pollution control - a national, integrated system for the most polluting industrial processes, and local authority controls over emissions to the air from less polluting processes. It is essential that the public should have confidence in these controls. The best way to achieve this is to have public access to the information held by the enforcing authorities.
>
> "The authorities will maintain registers setting out all the important information about the operation of the new controls. Members of the public will have a right to inspect the registers free of charge and to take copies.
>
> "I am publishing a consultation paper setting out detailed proposals about the information to be included on the registers. Comments are requested by [two months from date of publication].
>
> "I hope that we will receive as many comments as possible. It is very important that on issues like this there is a wide and open public discussion."

NOTES FOR EDITORS

1. In 1986 and 1988 the Government issued consultation papers proposing two new pollution control systems: a system of Integrated Pollution Control operated by Her Majesty's Inspectorate of Pollution, controlling emissions to all three environmental media (air, water and land) from the industrial processes which have the greatest polluting potential; and a system of local authority controls over emissions to the air from less polluting processes. The Government has announced that these proposals will be implemented at the earliest legislative opportunity, and certainly during the lifetime of this Parliament.

2. The operators of processes which are scheduled for control will apply for authorisations to the appropriate enforcing authority (HMIP or the local authority). The authority will examine and, where appropriate, authorise the process technology and methods of operation. Conditions will be imposed to ensure that emissions of harmful substances are prevented or minimised and that people and the environment are protected.

3. The consultation paper published today sets out proposals for public registers which will be maintained by the enforcing authorities. Information on the registers will include copies of applications for authorisations: copies of the authorisations that are issued; and details of the record of operators in complying with authorisations, including details of any enforcement action taken by the authorities.

4. Comments are requested by [two months from date of publication], and should be sent to:

Mr M Gardiner
Department of the Environment
Room A302
Romney House
LONDON
SW1P 3PY

INTEGRATED POLLUTION CONTROL AND LOCAL AUTHORITY AIR POLLUTION CONTROLS: PUBLIC ACCESS TO INFORMATION

CONSULTATION PAPER

Purpose of consultation

1. This consultation paper sets out proposals for establishing and maintaining registers to allow public access to information held by Her Majesty's Inspectorate of Pollution in connection with the new system of Integrated Pollution Control and by local authorities in connection with the new system of air pollution control. The paper seeks views on detailed proposals regarding the scope and content of the registers and measures to safeguard confidential and sensitive information.

Background: the new pollution control systems

2. The Government has announced that it intends to introduce two new pollution control systems in England and Wales: a system of Integrated Pollution Control (IPC) for certain types of industrial processes which have a significant potential for pollution; and a system of control over emissions to air from certain less polluting processes. Consultation papers on these new systems were issued in December 1986 and December 1988 (local authority controls) and July 1988 (IPC). Her Majesty's Inspectorate of Pollution (HMIP) will be the enforcing authority for processes subject to IPC control, while local authorities will have responsibility in respect of the air pollution controls.

3. The processes to be controlled under each system will be prescribed by the Secretary of State. The appropriate enforcing authority will examine and, where appropriate, authorise the process technology and methods of operation to be adopted by the operator of a scheduled process and the levels of discharges to the environment. Authorisations will be subject to whatever conditions are thought necessary to protect people and the environment.

4. Legislation to implement these proposals will be introduced at the earliest available opportunity.

Background: public access to environmental information

5. The Government has demonstrated its commitment to the principle that the public should have a right of access to information held by pollution control authorities. In 1984 it accepted a recommendation by the Royal Commission on Environmental Pollution that "there should be a presumption in favour of unrestricted access for the public to information which the pollution control authorities obtain or receive by virtue of their statutory powers, with provision for secrecy only in those circumstances where a genuine case for it can be substantiated". In 1986 the Department of the Environment published the report of an Interdepartmental Working Party (Pollution Paper No.23) on the measures necessary to implement the Royal Commission's recommendations.

6. The Water Act 1989, replacing similar provisions in the Control of Pollution Act 1974, provides for the maintenance of registers containing information arising from the control of water pollution, details of which are set down in the Control of Pollution (Registers) Regulations 1989 (SI 1989/1160). The 1974 Act also provides for registers of waste disposal licences. The Environment and Safety Information Act 1988 provides for the maintenance of registers giving details of notices served under a number of other Acts, including the Health and Safety at Work Etc Act 1974 and the Food and Environment Protection Act 1985. And SI 1989/318 requires registers to be maintained of all applications for and decisions about air pollution registrations. In each case these registers are available for public inspection free of charge and copies may be obtained on payment of a reasonable fee.

7. Members of the public also have access to HMIP annual reports and to BPM notes - guidance notes on the operation of the existing system of air pollution control. There are also some

75 local liaison committees which are attended by HMIP inspectors for the purpose of explaining their work in controlling specific plants.

8. The Commission of the European Communities has put forward a draft directive which seeks to promote and extend public rights of access to environmental information throughout the Community. Discussions on the draft are, however, at a relatively early stage, and it seems unlikely that they will be concluded before the proposed pollution control legislation is introduced in the UK. The Government considers that the best way to give effect to the principles underpinning the draft directive, in the context of the new pollution control systems, is to build upon the system of registers outlined in paragraph 6 above.

9. The register approach has many advantages. It fulfils in a transparent and administratively practical way the objective of giving the public a right of access to the information supplied to, and decisions taken by, the enforcing authorities. The approach is transparent because members of the public can see clearly and precisely what information is available, and because the information is readily available in a well-presented form. The public are not faced with the difficult task of having to find out what information is available before they can exercise their right of access. The register approach is administratively practical because the burden placed on the enforcing authorities is kept within finite bounds. The task of maintaining registers and making them available to the public represents a known and fixed burden on the authorities, in terms of workload and financial resources. They are not required to respond to ad hoc and possibly ill-defined requests for information which may not be readily available.

Objectives

10. The Government aims to achieve a system of public access to information obtained under the new pollution control systems which:

a. is clear, so that both the public and the industries concerned know what information is available;

b. does not discourage the voluntary supply of information by industry to the enforcing authorities;

c. preserves the confidentiality of information which is commercially sensitive or which could compromise national security;

d. is administratively practical and as simple as possible to operate;

e. involves the minimum additional costs and does not represent a bureaucratic burden, either for industry or for the enforcing authorities;

f. builds upon familiar existing procedures.

Information to be included on the register

11. HMIP (in respect of IPC) and local authorities (in respect of air controls) will be placed under a duty to maintain registers of information relating to the issue, monitoring and enforcement of authorisations for industrial processes. It is proposed that in each case the registers should contain prescribed details of the following information:

- a copy of the application for an authorisation;

- a copy of the authorisation issued in respect of the process, including a brief description of the process, the conditions set by the enforcing authority and any subsequent alterations; information that could be included in an authorisation was set out in Annex 2 to the 1988 IPC Consultation Paper;

- a statement of the general condition which will be included in every authorisation in respect of any aspect of the process not made subject to a specific condition;

this will require the operator to use the best available technology not entailing excessive cost to prevent or minimise the release to the environment of prescribed substances and to ensure that any substance released directly or indirectly into the environment is rendered harmless and inoffensive;

- details of any variation notices served by the enforcing authority on the operator of the process (ie notices requiring improvements or other modifications to the existing conditions of the authorisation);

- summary information resulting from monitoring by the enforcing authority of the operator's compliance with the conditions of the authorisation;

- summary information about any failure by the operator to comply with the conditions of the authorisation; this information would include details of the frequency and the extent of any failures to comply;

- details of any enforcement or prohibition notices served on the operator (ie notices requiring the operator to remedy any breach of the authorisation or to close down any aspect of the process);

- information about any completed action taken in the courts against the operator for breach of the conditions of the authorisation or for failure to comply with a notice served by the pollution control authority;

- an indication, where appropriate, that certain information has been omitted from the register (see paragraph 19 below).

Appeals

12. The legislation giving effect to the new pollution control systems will give the operators of processes rights of appeal to the Secretary of State against failure to grant an authorisation,

the conditions of authorisations and the service of variation, enforcement and prohibition notices. Where an operator exercises a right of appeal, it is for consideration whether information relating to the appeal should be withheld or deleted from the register until the appeal is determined. A similar issue arises where an operator has been taken to court: it is for consideration whether information relating to the case should be withheld or deleted from the register until all the legal processes, including any appeal that may have been made, have been completed.

13. An alternative to withholding or deleting information would be to include the relevant information on the register, but to note on the register that an appeal has been made or that the matter is subject to review by the courts. On balance the Government favours the latter approach, in the interest of greater openness.

The protection of sensitive information

14. The disclosure of certain information might compromise national security or the commercial interests of an operator. It is important to ensure that information in these categories is kept secure. In the case of information, the disclosure of which might compromise national security, the following procedure is proposed. The Secretary of State would be empowered to issue directions to the enforcing authority to omit specified information or categories of information from the register. When making an application for an authorisation, or upon receipt of a variation, enforcement or prohibition notice, the operator of a process would be able to apply to the Secretary of State for such a direction. The Secretary of State would not make a direction unless he was satisfied that the inclusion of information on the register would be contrary to the public interest.

15. A similar procedure could be applied in the case of information, the disclosure of which might compromise the commercial interests of an operator. There might, however, be a large number of applications from operators to the Secretary of State, asking him to exercise his powers of direction in respect

of commercially sensitive information. It might therefore be more efficient administratively to empower the enforcing authorities to omit specified information from the register on the grounds that its inclusion might compromise the commercial interests of an operator. Operators would then apply to the enforcing authority, rather than to the Secretary of State, if they felt that information should be omitted on those grounds. If this alternative procedure were adopted, it would be necessary to give operators a right of appeal to the Secretary of State against decisions by the enforcing authorities.

16. The Department would welcome views on the merits of these alternative procedures, in respect of commercially sensitive information, before reaching a conclusion.

17. There may be circumstances in which it would be in the national interest for information to be included on the register, even though its inclusion might prejudice some private interest. It is proposed, that in those special circumstances, the Secretary of State should be empowered to direct that commercially sensitive information should be included in the register.

18. Where an operator applied for information relating to an application for an authorisation to be omitted from the register, the enforcing authority would not decide the authorisation application until a decision had been reached on the omission of the information from the register.

19. Where information is omitted from the register, it is proposed that this fact should be mentioned in the register, other than in exceptional circumstances where even the mention of this fact could, in the Secretary of State's opinion, compromise national security. An indication that information has been omitted from the register will give members of the public an opportunity to make representations to the Secretary of State (or the enforcing authority) about the omission of the information. It is not proposed, however, that the public should have a formal right of appeal against a decision to omit information from the register.

20. Information which is omitted from the register will nevertheless remain part of the application, authorisation or notice concerned.

Access to the register

21. It is proposed that each local authority should keep copies of all the register entries which relate to processes (including IPC processes) in their area; and that copies of IPC register entries should also be maintained in the relevant district/regional offices of HMIP and at HMIP's head office. Members of the public would have a right to inspect any entry at any reasonable time, to be determined by the local authority or HMIP, as appropriate. This will generally mean that registers may be inspected during the hours during which each office is open for public enquiries. Members of the public would also have a right to obtain a copy of any register entry, on application in person and on payment of a reasonable fee.

22. It is proposed that a central HMIP register and registers held by individual local authorities of processes they control should be held indefinitely, as a permanent record. All other register entries would be removed when they have been wholly superseded by subsequent entries or where the process in question has not been in operation at any time in the previous 3 years.

Information not included on the register

23. It is not considered practicable or necessary to include on the register all of the information supplied to or obtained by the pollution control authorities in the course of operating the new pollution control systems, or to provide for access on demand to information not included on the register. There is however the question of access to the considerable quantity of "raw" sampling data which will be collected by or on behalf of the authorities. Making this data available could impose a considerable burden on the authorities (particularly in view of the need to protect information which is sensitive on grounds of commercial confidentiality or national security) and the benefit

would be limited, given that the registers will already contain the most important information about emissions, namely the emission limits set by the authorities in consent conditions, summary information about the operator's compliance record, including details of any failure to comply with the conditions, and a record of enforcement action taken against operators. The Department would welcome views on this issue before reaching a conclusion.

Resource implications of the proposals

24. It is considered that these proposals should add little to the costs of the firms which are subject to IPC. No information will be disclosed other than that which firms are in any case required to supply to the enforcing authorities, in order to obtain authorisations, or which the authorities may obtain as a result of carrying out their statutory functions.

25. There will be resource implications for the enforcing authorities, arising from the maintenance of registers. These costs will be reflected in the proposed system of charging operators for authorisations. It is not possible, however, to isolate the costs of operating the proposed system for public access to information from the total costs of the new pollution control systems.

Implications for other pollution control regimes

26. The legislation which introduces IPC and the new local authority air pollution controls is also likely to include provisions relating to other pollution control regimes - for example, amendments to the Radioactive Substances Act 1960. It is for consideration how far the proposals in this consultation paper should also apply to these other provisions.

27. From 1 September 1989 the National Rivers Authority (NRA) will continue the operation of registers in respect of discharges to water under the legislation mentioned in paragraph 6 above. Even when HMIP assume responsibility for authorising discharges to water from prescribed processes under the IPC proposals, it is

likely that the NRA will wish to maintain details of all discharges to controlled waters and associated monitoring information on its own registers.

Responses to this consultation paper

28. Respondents are asked to submit their comments no later than [ ] to the following address:

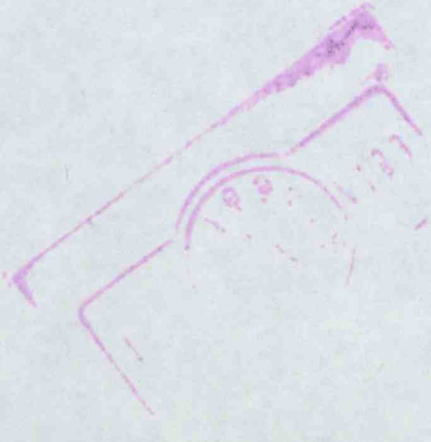
Mr M Gardiner
Central Unit on the Environment
Department of the Environment
Room A302
Romney House
43 Marsham Street
London SW1P 3PY

Respondents are asked to indicate:

- whether they propose to publish their comments or make them available to the media; and

- whether they agree that the Department may make their comments available to Parliament and open for public inspection by the placing of copies in the Departmental library.

If the answer to both questions is no, comments will be treated as in confidence to the Government, but may be counted in any numerical survey which does not identify individuals' responses.



PRIME MINISTER 17 August 1989

P/A - already agreed by note submitted to Pm.

"SUSTAINABLE DEVELOPMENT"

On Tuesday, Chris Patten announced the publication of the above report by Professor David Pearse et al. The terms of reference for the authors of this report were

> 'to review the state of the art on the relationship between the sustainable development concept, national accounting, resource accounting, satellite accounting and project appraisal procedures' and 'to provide an authoritative position statement drawing on national and international experience, where relevant, as a background to developing a UK programme of work in this area.'

The report is an excellent document which although fairly technical in some chapters is eminently readable. You will want to read the Executive Summary and parts of the full report. (I have provided a guide to the full report in an annex).

INSTANT SUMMARY

Many environmental products, services and resources do not get represented in the price mechanism and are treated as "free goods". As such, unfettered use of the price mechanism tends to use too much of the zero priced good. The environment thus becomes degraded. Development becomes unsustainable.

The report investigates why and how to put values on environmental resources. It shows that by incorporating these values into the price mechanism, environmental resources are used more efficiently leading to sustainable development. In

this manner each generation bequeaths at least as much man made and natural capital to future generations as it itself received.

RECOMMENDATION

You have previously endorsed the concept of sustainable development. This report provides a sound basis on which you, Chris Patten and other colleagues can build a comprehensive environmental policy which will "secure the high ground".

I would recommend that the report be circulated among colleagues so that they may understand the concepts and terminology and are thus able to participate in any future discussions you may have on environmental policy.

GREG BOURNE

ANNEX

SUSTAINABLE DEVELOPMENT

(A READING GUIDE TO THE FULL REPORT)

PREFACE

Worth reading in full.

CH 1 INTRODUCTION

Worth reading in full.

CH 2 THE MEANING OF SUSTAINABLE DEVELOPMENT

Worth reading in full.

CH 3 VALUING THE ENVIRONMENT

Mainly a technical discussion about valuation methodologies. The introduction (p50) and conclusions (p78) are worth reading.

CH 4 ACCOUNTING FOR THE ENVIRONMENT

Worth skimming through. The conclusions (p117-118) are worth reading.

CH 5 PROJECT APPRAISAL

CH 6 DISCOUNTING THE FUTURE

Both chapters are highly relevant to HMT but are rather technical. Worth skimming only if time permits. I have highlighted a few paragraphs. (p125, 130, 141, 142, 148).

CH 7 PRICES AND INCENTIVES FOR ENVIRONMENTAL IMPROVEMENT

This chapter is well worth reading in full. It discusses in some detail how market mechanisms can be made to work for rather than against, sustainable economic development.

COPC (2)

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Prime Minister

As regards to your concern that there should not be overlapping between work in the OECD & in the EC. CDP 24/8.

relevant extract from Paris Summit Economic Declaration attached. MS

C D Powell Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

17 August 1989

Dear Charles

Thank you for your letter of 1 August about the Commission's proposal for a European Environment Agency.

It is our understanding that the Paris Economic Summit called on the OECD to consider how environmental indicators could be developed in the context of integrating environment and economic decision making. This is a broad remit which will build on the pioneering work of Professor David Pearce, the Secretary of State's newly appointed Special Adviser. The proposed Agency will primarily provide basic scientific and other data in such areas as atmospheric emissions, soil erosion and water quality. Nevertheless, in presenting its proposal the Commission has drawn attention to the need to avoid duplication with the data-gathering and monitoring activities of such bodies at the OECD and UNEP. The Secretary of State will stress the importance of this when he takes part in the first political discussion of the Agency at the Environment Council on 19 September.

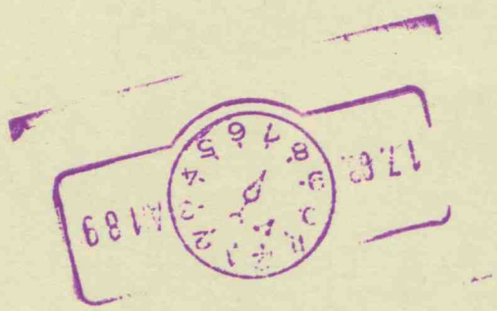
In the meantime officials in the Department are preparing a paper for discussion at EQO, and for subsequent clearance by Ministers, on the main issues raised by the proposed Agency. This paper will outline ways in which duplication can be kept to a minimum. It will also indicate ways in which we believe the Agency could provide more reliable data than OECD and UNEP are at present able to draw on.

Yours

CEJ Bush

KATE BUSH
Private Secretary

ENV. AFFAIRS: Acid Rain pr 11



We encourage the World Bank and regional development banks to integrate environmental considerations into their activities. International organizations such as the OECD and the United Nations and its affiliated organizations, will be asked to develop further techniques of analysis which would help governments assess appropriate economic measures to promote the quality of the environment. We ask the OECD, within the context of its work on integrating environment and economic decision-making, to examine how selected environmental indicators could be developed. We expect the 1992 UN Conference on Environment and Development to give additional momentum to the protection of the global environment.

38) To help developing countries deal with past damage and to encourage them to take environmentally desirable action, economic incentives may include the use of aid mechanisms and specific transfer of technology. In special cases, ODA debt forgiveness and debt for nature swaps can play a useful role in environmental protection.

TID OR DEVELOPING COUNTRIES

We also emphasize the necessity to take into account the interests and needs of developing countries in sustaining the growth of their economies and the financial and technological requirements to meet environmental challenges.

39) The depletion of the stratospheric ozone layer is alarming and calls for prompt action.

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

16 August 1989

Thank you for your letter of 10 July enclosing some further copies of the Bulletin and more information about the 'safety inherent reactor' and about the urban transport work you mentioned. I am sorry to have taken some time to come back to you. I know that the Prime Minister was very interested to see this and will be reflecting on it over the holiday period.

Thank you again for writing. If you would care to write to me in future I shall certainly ensure that the Prime Minister receives the information you send.

CAROLINE SLOCOCK

David R. Cope, Esq.

CF

R BJF 24/8 for consideration after the PM's return.

RRC
10/8

FROM: LYNDA CHALKER

DATE: 10 AUGUST 1989

cc PS
PS/Mr Waldegrave
PS/Lord Brabazon
PS/Mr Lankester
Mr Ainscow
Mr Bayne
Mr Bennett
Mr Manning
Mr Hudson
Mr Buist
Mr Ireton
Mr Turner
Mr Beetham, MAED/FCO
Mr Machin

Prime Minister

We have been reporting regularly on our progress in implementing your undertaking of 24 October 1988 in Parliament that we would direct more of our aid to encourage the wise and sustainable use of forest resources. I have spoken to John Major and agreed with him that, in his absence from the office, I should send this latest report on progress in implementing your commitment directly to you. It covers developments since Chris Patten last reported in April, the highlight being the agreement he signed with the Government of Brazil last month.

Introduction

2. In 1988/89 ODA spent £7.4m on bilateral forestry aid. The initiative we have underway should increase this to about £23m a year in two or three years time (from existing resources) if we can persuade developing countries to attach the same priority to forestry that we do. We indicated in the preparations for your seminar that we felt it was possible to raise this to £70m a year in 5 years time and we think we can achieve expenditure of £50m a year in 3 years. This depends on PES decisions providing the necessary additional funds, including to cover essential extra ODA running costs.

/Bilateral Country

Bilateral Country Programmes

3. In his last report on 3 April Chris Patten noted that we had identified 23 countries where we aim to seek new forestry commitments over the next 2-3 years. An outline of the latest progress for each country is appended. Of particular importance are the developments in Brazil, which is one of the key countries in the international forestry question, and one with which we have no traditional aid relationship. ODA's Deputy Chief Natural Resources Adviser led a team to Brazil in June and we hope this will lead to a package of assistance of at least £3m. During his visit there in July Chris Patten signed a Memorandum of Understanding for British environmental assistance, which is a necessary first step to establishing a programme. This was the first agreement of its kind the Brazilian authorities have signed with a developed country. As a result of these actions we expect the first of the new projects already identified in outline to begin before the end of this year.

4. For future assistance beyond that set out in the appendix, we have provisionally identified a smaller list of countries on which we might particularly wish to concentrate. These include India, Nepal, Sri Lanka, Indonesia, Cameroon, Tanzania, Kenya and possibly Zimbabwe. This list is not exclusive, but to be effective we will need to focus our bilateral efforts. If opportunities arise elsewhere which seem to offer the scope for particularly effective action, we will pursue them. But the list represents our current assessment of where the prospects are in principle most favourable.

Tropical Forestry Action Plan (TFAP) and International Tropical Timber Organisation (ITTO)

5. A central part of our forestry strategy is to support and strengthen the TFAP and the ITTO. ODA's Chief Natural Resources Adviser visited Rome in June to reiterrate to FAO the importance of their giving TFAP adequate support and to assess whether TFAP was putting enough emphasis with

/developing countries

developing countries on dialogue on policy and strategies towards the forestry sector. On both points we remain concerned and are considering what more we may do. We have offered, so far without response, to provide the TFAP Coordination Unit in FAO with a forester. We continue to play an influential role in developing TFAP action plans for individual countries. Meanwhile, we have asked the World Bank, in current IDA9 negotiations to play a more active role in the country policy dialogue and they have agreed to see what can be done.

6. On ITTO, the main news is that the Japanese propose to inject $150m over the next several years. This will have a dramatic effect on ITTO, which is currently a small organisation with a professional staff of about 12. We shall need to follow the Japanese proposals very carefully. Specific modest proposals for ODA support for ITTO's activities are under consideration. These include a study with Friends of the Earth on labelling hardwoods, the possibility of funding an ITTO mission to study the forests of Sarawak in Malaysia, and possible support for ITTO in preparing guidelines on the sustainable management of tropical forests for ITTO to circulate to its members.

Research

7. Commitments to centrally funded, strategic forestry research in 1989/90 already exceed £1.25m compared to expenditure of £580,000 in 1988/89.

Commonwealth Development Corporation

8. CDC is already a significant investor in the forestry sector, with expenditure in 1988 of £3.4m, and is paying increased attention to expanding its forestry portfolio. Work is progressing on the identification of new forestry development projects, including some conservation components, in Cote d'Ivoire, Tanzania and Zambia.

/British Charities

British Charities

9. We continue to encourage British charities to put forward more forestry projects under the Joint Funding Scheme. The block grant we announced in February of £1m for the World Wide Fund for Nature, primarily for forestry conservation, is now being spent. In June we approved a new grant of £0.2m for the International Council on Bird Preservation for a conservation project in the lowland rain forests of Thailand.

Multilateral Aid and Other Bilateral Donors

10. We continue to press the main multilateral agencies to adopt appropriate policies and provide funding for forestry. We are paying for a forestry adviser to work in DG8 of the European Commission; we are involved with a new World Bank project in Ghana and are considering other possibilities for collaboration for example Zimbabwe. We continue to encourage other bilateral donors to devote more resources to forestry. Germany recently set aside DM250m (£80m) over 3 years for tropical forestry projects. DM100m of this is earmarked for Brazil.

Access to Expertise

11. We have taken further steps to ensure we have the expertise to deliver the initiative. In ODA headquarters we have 3 forestry advisers (including the Deputy Chief Natural Resources Adviser). At the Overseas Development Natural Resources Institute (ODNRI) we now have 4 foresters and are recruiting 2 more (one of these is for a new post). Further strengthening of ODNRI is under consideration. We are considering the need for forestry specialist posts to assist some of our Development Divisions. The foresters among our Corps of Specialists currently number 5; we are recruiting to increase this to 11 by the middle of next year. The number of foresters among our Associate Professional Officers Scheme (APOS) has increased from 2 in 1987/88 to 4 in 1989/90.

/12.

12. We are developing our existing strong links with the Oxford Forestry Institute and have offered in principle to support their proposal to develop an international forestry research information centre and library. We shall also be considering how we might best make use of the forestry resources of other British universities, charities, consulting firms, and others.

International Political Agenda

13. In order to take forward international action on reversing deforestation and encouraging afforestation and to convince developing countries to place higher priority on the forestry sector we need to ensure that the issues figure in the appropriate high level international fora. We aim to have CHOGM, the World Bank Autumn meetings, UNGA, FAO and the Inter-Governmental Panel on Climate Change consider the forests in a way suited to their particular role in the issues involved.

Lynda Chalker

L.C

Overseas Development Administration
10 August 1989

TARGET COUNTRIES FOR ADDITIONAL BILATERAL FORESTRY COMMITMENTS

AFRICA

Cameroon	New £1.0m (approx) practical pilot regeneration and management project expected to start later this year, deriving from existing/former research and education projects.
Ghana	New £3.7m forest management and inventory project, part of a major World Bank project and following on from completed ODA project, started in June.
Kenya	Assisting World Bank with preparation of new forestry programme due to start next year, which we will also support. Preparing to appraise project for rehabilitation of Forestry Department transport. Total cost of new initiatives might be around £4m over 5 years.
Lesotho	Considering further support to existing project to strengthen newly formed forestry division. Further new initiatives may emerge from FAO donors conference this year, notably in forestry aspects of Highlands water scheme.
Malawi	Four projects under consideration for future funding: wood energy research at Forestry Research Institute of Malawi; aphids research; women's dormitory for Malawi College of Forestry; fire fighting equipment and staff for Viphya plantations.
Nigeria	Current work on master plan for Oban hills landuse and forestry nearing completion. ODA Forestry adviser to follow up a number of new possibilities in forestry sector.
Somalia	We have prepared a new £0.8m woodland management and research project in the Bay Region and action is in hand.
Sudan	Plans to fund a £0.5m link between Khartoum and Edinburgh Forestry Departments well developed. A £0.7m project for strengthening forest research at Forest Research Centre in Soba is under consideration.

Tanzania — A community based natural woodland management and rural forestry project, ideally to be undertaken by an NGO, is under consideration. In addition a modest project to reduce deforestation along the shores of Lake Victoria by developing more efficient means of drying fish and by replanting is also being considered.

Zimbabwe — ODA Forestry adviser to visit in August to consider prospects for co-financing World Bank's second forestry project and possibilities for further bilateral support.

ASIA

Burma — Action frozen due to political and security situation but potential assistance with forest conservation and management in medium term.

China — Depending on political situation, potential link in medium term between Oxford Forestry Institute (OFI) and suitable Chinese institution eg on tree breeding/genetics.

India — Have offered to appraise further phase of Karnataka Social Forestry Project. Project identification team currently in field for major new project in Western Ghats. In April announced £40m for local costs for environment projects, primarily forestry.

Indonesia — Following project identification mission in May, provision of 2 man senior management team for Minister of Forestry is under consideration. This would recommend further areas for assistance. (Indicative planning figure £1-2m pa). Feasibility study carried out for ATP project of approximately £25m for assistance with radio communications to help Ministry of Forestry ensure forest protection.

Nepal — Further phase planned for the forestry research project when current phase finishes shortly. Continuing inputs to Kosi Hills community forestry programmes.

Sri Lanka	Following mission in May, £12m project for reafforestation and protection of existing forest is expected to be submitted for approval later this year.

ELSEWHERE

Belize	Continuation of assistance in forest management and research. Further support possible pending donors meeting in December on results of ODA led TFAP review.
Brazil	ODA Forestry/Environment mission in June to be followed up by preparation of package of support of at least £3m. Minister for Overseas Development visited in early July and signed Memorandum of Understanding for UK environmental assistance. Further visits by specialists from the UK institutions concerned will be made in August/September to finalise details of the projects to be started before the end of the year.
Fiji	Further support to be considered after presentation to donors of TFAP in August.
Honduras	New project for wood use centre has been prepared. Implementation arrangements now being discussed.
Jamaica	ODA Forestry adviser to visit later this year to consider new projects and possible support for CDC activities.
Solomon Islands	Increased TC and CDC involvement under consideration.
Vanuatu	ODA funded Director of Forestry now being recruited.

RESTRICTED No need for any response to this minute. RRCG 10/8

W0207

MR POWELL - No. 10 8 August 1989

INTERNATIONAL ENVIRONMENTAL ISSUES.

Having seen your minute of 28 July to Stephen Wall, I warmly welcome both the Prime Minister's continuing interest in this most important international issue and the proposal that she might make a speech to the UN in November.

2. With respect to the requirements for environmental research, you will be aware of cases made for extra money in the PES advice from the Advisory Board for the Research Councils and in DoE's PES bid. In addition, the recent ACOST advice on National Priorities endorsed current activities on monitoring, data collection and modelling but emphasised the need for more basic science to provide better information in the chemical and biological mechanisms. Indeed, the public awareness and concern about global environmental issues has derived largely from scientific discoveries.

3. I support the cases for ERS2, a climate change centre and the World Ocean Circulation Experiment. However, in addition to these new expenditures, it might be opportune to reconsider our overall financial support for environmental research across Departments.

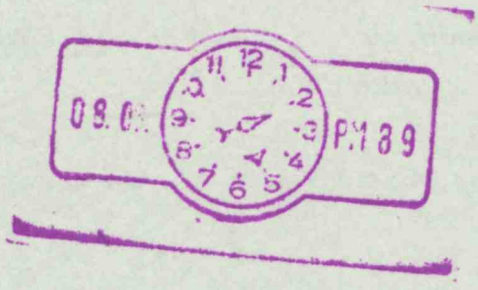
RESTRICTED

4. The suggestions on the economic side are sensible but actions need to be dovetailed with scientific research and opportunities. The latter of course range further than environmental research, covering such areas as alternative energy sources, energy efficiency and substitution of products such as chlorofluorocarbons.

5. I am copying this minute to the recipients of yours.

JOHN W FAIRCLOUGH
Chief Scientific Adviser

ENV AFFAIRS: Acid Ra
Pt II



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SUBJECT cc Master

10 DOWNING STREET
LONDON SW1A 2AA

From the Private Secretary

2 August 1989

Dear Stephen,

INTERNATIONAL ENVIRONMENTAL ISSUES

Sir Crispin Tickell completed his interrupted talk with the Prime Minister on environmental issues this evening. Points he made were:

- it would give greater credibility to our proposals for dealing with tropical forests if we were seen to be taking more initiatives about our own forests and woodlands;

- the ideas which he had sketched out in his speech in New York for using and developing existing international institutions on environmental issues should be worked up;

- consideration should be given to making public use of the paper on energy conservation presented to the seminar on environmental issues in April by Ken Currie. This was a very important aspect of our environmental policy.

I am copying this letter to Roger Bright (Department of the Environment).

Yours sincerely,

(C.D. POWELL)

Stephen Wall, Esq.,
Foreign and Commonwealth Office.

CONFIDENTIAL

CONFIDENTIAL

PM2ATY

CCPC

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

1 August 1989

Dear Roger,

The Prime Minister has seen a copy of your Secretary of State's letter of 28 July to the Foreign Secretary about the Commission's proposal for a European Environmental Agency. She agrees that the Commission need to develop a sound data base to support Community environment policy. But her recollection is that, at the Economic Summit, we proposed that the OECD should take the lead in this, since it already collects a good deal of data, and the Commission could presumably draw on this. I think she would like to know rather more about how we would intend to avoid duplication between OECD and the Commission in this area before reaching a firm view.

I am copying this letter to the Private Secretaries to members of OD(E) and Trevor Woolley (Cabinet Office).

Yours sincerely,

C. D. POWELL

Roger Bright, Esq.,
Department of the Environment.

CONFIDENTIAL

Mr Powell.

CP.

CABINET OFFICE

70 Whitehall London SW1A 2AS
01-270 0101

From the Secretary of the Cabinet and Head of the Home Civil Service
Sir Robin Butler KCB CVO

Ref. A089/2100

31 July 1989

My dear Patrick,

World Environmental Conference

Many thanks for your letter of 27 July, which I received shortly after seeing Terry Heiser's letter of 26 July.

I have always thought that this Conference was a curious project and I am not surprised by the reactions which you and Terry report. I have suggested to Geoffrey Tucker names of people whom he might approach for the post of Director General of the British Committee (copy enclosed) and I hope that we would continue to give Geoffrey Tucker any friendly advice. But this is not a Government initiative and - to be fair to Geoffrey Tucker - he has never, to my knowledge, suggested that it should become one. I think that it might be useful if we were to look for an opportunity to make clear to the Russians that, while our attitude to any project which draws attention to the need for international co-operation on environmental matters is benevolent, the project is a private sector one at this end.

I am copying this letter to Terry Heiser and Charles Powell.

Yours ever,

Robin

Sir Patrick Wright GCMG
Foreign and Commonwealth Office

RESTRICTED

SUBJECT cc Master

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

28 July 1989

INTERNATIONAL ENVIRONMENTAL ISSUES

The Prime Minister had a talk this morning with Sir Crispin Tickell from which a number of points emerged:

- we should make more of the excellent work done on the economic aspects of the environment. For instance, we should consider publishing the paper on the Global Environment: Economic Aspects, produced before the Economic Summit. The Treasury might start some practical work on environmental costing.

- in the context of this year's survey, we should have a fresh look at whether sufficient funds within the overall research allocation are going to environmental research.

- environmental issues are likely to play a major part in the work of the United Nations over the next year. It might be a good idea for the Prime Minister to make a speech at the UN in November on general environmental issues and particularly global climate change.

- much more work is needed on the environmental implications of population growth, bearing in mind the potentially disastrous consequences for some particularly densely populated areas of global warming. We needed to think, in particular, how such work should be organised at the international level.

In all four cases, these are no more than suggestions on which the Prime Minister would welcome views and advice from Departments concerned.

I am copying this letter to Roger Bright (Department of the Environment), Alex Allan (H.M. Treasury), Stephen Crowne (Department of Education and Science) and Trevor Woolley (Cabinet Office).

C. D. Powell

Stephen Wall, Esq.,
Foreign and Commonwealth Office.

RESTRICTED

CONFIDENTIAL

EC TH (1)

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Prime Minister

Would you be prepared to go along with a small agency with a tightly-defined role?

CDP 31/7

The Rt Hon John Major MP
Foreign and Commonwealth Office
Downing Street
LONDON
SW1

28 July 1989

At the Economic Summit, we proposed that the OECD should do it (already the OECD collects data). I suggest we don't need two bodies. NL

Jan John.

16

As suggested at the 14 June meeting of OD(E) I am circulating our views on the Commission's proposal for a European Environment Agency.

First, it should be said that we are strongly in favour of the Commission developing a sound data base to support Community environment policy. However, we want to see any new arrangements that are put in place firmly pointed at information provision and not at enforcement questions or policy initiatives.

At the Informal Environment Council in May, Malcolm Caithness raised a number of questions about the detail of the agency proposal and later wrote to Commissioner Ripa Di Meana asking for clarifications. It is clear that the Commission have taken some of his points into account in the latest draft of the proposed Council Regulation (COM(89)303) but the objectives as stated still need to be narrowed down. Other outstanding issues concern the burden of work on member countries, the arrangements for managing the agency, its legal position and powers, the participation of non-Community countries and the details of funding. A copy of the draft regulation is at Annex A and a more detailed description of the issues involved is at Annex B.

We believe the idea of a small co-ordinating agency is well worth exploring. Nicholas Ridley expressed his support for the establishment of a body with the role of collecting and co-ordinating a statistical data base to provide an authoritative source of environmental data for the Community, at a meeting with Commissioner Ripa Di Meana on 13 July. All other Community countries have welcomed the idea in principle and the adoption of a positive line at this stage will enable us to influence the shape of the proposal still further. In addition we see parallels between this notion and the need to strengthen arrangements within the UK for

providing factual information about the environment, in a way that takes it out of political dispute.

Brice Lalonde, the French Environment Minister, made it clear, when he came to see Malcolm on 18 July, that the Agency proposal will be high on the agenda as far as the Presidency is concerned. It will be discussed at the September Council and they hope for adoption at the November meeting. In general our line is to avoid isolation and concentrate on the important task of ensuring that the appropriate clauses are written into any final draft regulation.

Copies of this letter go to other members of OD(E), Sir Robin Butler and Charles Powell.

Yours ever,

CHRIS PATTEN

Mo Prime
(51)
bcc RW

SIR ALAN WALTERS

RAINFOREST PROTECTION

The Prime Minister was most grateful for your note of 12 July. She is very pleased to note that the proposal you described is being pursued and looks forward to a further report in September.

PAUL GRAY

27 July 1989

dg

FILE MJ2 ADB

10 DOWNING STREET

LONDON SW1A 2AA

From the Principal Private Secretary

27 July 1989

GUILDHALL SEMINAR ON THE ENVIRONMENT

You asked me to investigate whether the Prime Minister would be able to address this seminar on 30 October. Having looked at her diary I regret that she will not be able to take on another important speaking engagement between her return from the Commonwealth Heads of Government meeting on 25 October and the middle of November as she already has a heavy programme at that time, not least the speech at Guildhall.

I am sorry to bring you such a disappointing reply.

Andrew Turnbull

Adrian Barnes, Esq.

KK.

Foreign and Commonwealth Office

London SW1A 2AH

Sir Patrick Wright GCMG
Permanent Under-Secretary of State

27 July 1989

Sir Robin Butler KCB CVO
Cabinet Office

My dear Robin,

WORLD ENVIRONMENTAL CONFERENCE

1. In my letter of 1 June, I said I would let you have the views of Rodric Braithwaite and Bryan Cartledge on Geoffrey Tucker's World Environmental Conference.

2. Rodric does not in fact have a first-hand view; because Geoffrey Tucker has not contacted him and the Conference has not come up in the Embassy's discussions with Soviet officials. However, it is clear to Rodric that the Russians are giving the Conference their support, and that it is now unstoppable. He agrees with our neutral approach, and will take the same line in Moscow.

3. Bryan Cartledge became involved (minimally, he hopes) with some reluctance, after urging from others and in the hope of keeping the Soviet dimension on the rails. He does not think the Soviet committee is yet the "good and powerful team" Geoffrey Tucker describes. Bryan has urged him to increase the involvement of scientists and other experts, and to scale down the heavy weighting towards writers and media personalities. He has advised Geoffrey Tucker to bring in the Soviet Academy of Sciences and New State Committee on the Environment.

4. Provided the Conference can be given a more serious and business-like content, Bryan sees no objection to official support. But he feels that at present there is too much emphasis on media 'hype'; and the timescale is much too ambitious.

5. It seems to me Rodric's and Bryan's comments support our belief that we should take a cautious line - and keep a watchful eye on developments. On this, I have just seen Terry Heiser's letter of 26 July. Certainly our own researches appear to have produced no evidence to suggest that we should be any more encouraging (as far as official support is concerned) than Terry recommends.

Yours ever, Patrick

Patrick Wright

RW2AAS

cc: Sir Terence Heiser KCB
DOE

Charles Powell Esq
No 10

RW2AAS

The National Archives

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DOMINIC MORRIS CDM 19 July 1989

UK POSITION ON AN INTERNATIONAL CLIMATE FUND

I note that in the covering letter this "position" has been agreed by Treasury, Environment and DTI.

The paper is, in effect, a claim for additional aid to be channelled through existing multilaterals - presumably the World Bank or perhaps OECD. It wants the aid to be "truly additional" and a "re-examination" of donor country's restrictions on administrative budgets (of the World Bank). This would mean a bigger international buureaucracy in Washington, outside the control of Westminster, which would administer these additional funds using their own criteria.

It is not clear how such funds would fit into the existing IFI arrangements. Would they be soft loans (such as IDA credits) or would they be grants of one form or another with no consequential repayment or would they be payment for specific annual 'services' (such as mainteance of tropical hardwood forest).

The paper does assume that "additionality" is unequivocally good and does not entertain the idea of financing the environmental effort by reducing non-environmental or even environmental-damaging aid. One would have thought that the Chief Secretary would ask for such an option to be explored. This is important because there is likely to be an enormous clamour for more than doubling aid to Africa (as a fraction of their GNP from a net 5 to a net 10 per cent, according to a World Bank report), and it is at least unlikely that aid to Latin America and Asia will be programmed to decline. There is much more "additionality" (eg Special Africa Fund) in the pipeline. It is also difficult to see any major countries "graduating" so that they are ineligible for aid.

The language of the declaration in paragraph 3 leaves much to be desired. What do we mean by accepting "in principle that developing countries do not have sufficient resources to solve their own local and regional environmental problems". Does any country, even the USA, have such a plenitude? It is the rulers who command these resources and, although they may have sufficient, they may not want to. Mr Mobutu, for example, has rather different uses for Zaire's resources. It also must be borne in mind that World Bank and IDA loans to countries such as Zaire are used primarily according to the desires of the rulers, not the donors.

The paper does not consider the case for unilateral or perhaps bilateral action such as the British Government simply buying the services of virgin forest (as suggested by Sir James Goldsmith). With all the disadvantages of such a policy, it may well be best to retain control by Westminster rather than cede it to some mixture of multilateral bureaucracy and Third World ruler.

ALAN WALTERS

CF PPS R 19/7

CONFIDENTIAL

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Charles Powell Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

19 July 1989

Dear Charles

MEWR CAS

Thank you for your letter of 13 June to Roger Bright seeking our advice on this telegram from President Bush (flagged A) to US clean air policies. The President's proposals represent a welcome step forward in environmental protection after a period of stagnation. He wrote about them only to the Prime Minister and to President Mitterand, President of the EC and host for the Paris Summit. I think therefore that the Prime Minister will want to respond warmly and I attach a draft reply (at B).

You may also like to see the attached commentary on these proposals (at C) and an explanatory paper put out by the White House (at D).

It is difficult to make any overall comparison between the tightness of air pollution controls in the US with those in the UK. Per capita emissions of major pollutants such as NOx, SO2, CO2, volatile organics and CO2 are all higher in the USA than the UK, in some cases very much higher. However, to a considerable extent this reflects greater travel distances, climate differences and consumer habits. The American approach is based much more on absolute air quality standards than ours; we look first for practicable ways of tackling particular problem processes. Both approaches have their merits, but the difference complicates comparisons. The US has for good reasons been much more concerned about vehicle emissions than we have, and there are some interesting proposals in this area and on emission trading.

The new US legislation is concerned with relatively traditional air pollution concerns, rather than the global issues of climate change and the ozone layer. Nevertheless, I recommend that the Prime Minister refer to our collaboration on climate change. The US is chairing one of the three Working Groups of the Inter-Governmental Panel on Climate Change - the one on Response Strategies, and is putting a good deal of energy into it. And, following our decision

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to increase our funding to UNEP, the parent body of the IPCC, from £1.25m to £3m, they have increased theirs from $8m to $9.5m. This is particularly welcome news since we had feared that domestic political pressure would cause them to reduce payments to UN bodies. One of our chief concerns about the IPCC is to secure adequate participation by developing countries. We have been able to contribute an additional £25,000 to IPCC for this purpose, which has been very well received, and the increased US contribution should help further UNEP efforts.

I am copying this letter and enclosures to Stephen Wall (Foreign and Commonwealth Office), Alex Allen (HM Treasury), Stephen Haddrill (Department of Energy) and Trevor Woolley (Cabinet Office).

Yours

CE S Bush

KATE BUSH
Private Secretary

The National Archives

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AT

C

MAIN FEATURES OF PRESIDENT BUSH'S CLEAN AIR PROPOSALS

I. ACID RAIN

1. Sulphur dioxide (SO2) emissions would be reduced by 10 million tonnes per annum by the year 2000, compared to a baseline year of 1980. 1980 emissions were 23.9 million tonnes (UK 4.8mt) and 1986 (the latest available data) 21.2mt (UK 3.9mt) or 88kg/capita compared to 68kg/capita in the UK. So 27% of the target had already been achieved by 1986.

2. 5 million tonnes of this reduction would be required to be achieved by 1995.

3. Nitrogen oxides (NOx) emissions would also be reduced by 2 million tonnes per annum by the year 2000. But no base year is quoted. 1980 emissions were 20.3 million tonnes (UK 2.3mt) and 1986 (latest available data) 19.3mt (UK 2.2mt) or 80kg/capita compared to 39kg/capita in the UK. So, if the base year is 1980, 50% of the target had already been achieved by 1986.

4. However, utilities would be able to trade reductions in NOx emissions for reductions in SO2 emissions (or vice versa). In other words, the overall aim would be a 12 million tonne/annum reduction in the total NOx plus SO2 emissions.

5. The emission reductions would be achieved by setting emission standards which all plants above a certain size in affected states would be required to meet. The standard in phase I (to 1995) would be set at 2.5 lbs per million BTU and would be tightened in phase II (to 2000) to approximately 1.2 lbs per million BTU.

6. Plants would be left to make their own decisions as to how they would meet the emission standards. Their options would obviously include fuel switching, installation of scrubbers or adoption of new "clean coal" technologies.

7. The plan would also allow utilities to trade the required reductions so that they could be achieved in the least costly fashion. A plant operator who had achieved a level of emission which was better than the standard would therefore presumably be able to sell a pollution "credit" to another operator who could use it to offset emissions which exceeded the standard. In phase I, trading would only be allowed among electricity plants within a state or within a utility system But full interstate trading would be allowed in phase II.

8. The phase II deadline would be extended for three years for plants adopting clean coal repowering technologies. Regulatory incentives would also be introduced to help these technologies penetrate the market place.

9. The estimated cost of these proposals would be $700m per annum in phase I rising to $3.8bn per annum in phase II, representing an increase of over 2% in the US's total electricity bill. (In practice, though, some local electricity price increases would be higher as they would depend on what expenditure was incurred by the local utility to meet the emission standards).

Action in the UK

10. The UK in 1988 agreed with EC partners the Large Combustion Plants Directive. This commits member states to reducing their SO2 emissions, from pre-1987 plants over 500MW, by 20% (base year 1980) by 1993, 40% by 1998 and 60% by 2003 - broadly similar to the US proposals. NOx emissions will be similarly reduced by 15% by 1993 and 30% by 1998 - more challenging than the US proposals. New plants will have stringent SO2 and NOx emission limits.

11. Implementation will cost around £2 billion. Most of the burden will fall on CEGB and its privatised successors, because they contribute about 85% of the pollution involved. Refineries and other industries will take a small share. As in the US, it will be for companies in consultation with HMIP to judge how to meet standards eg (in the case of SO2) through flue gas desulphurisation, fuel switching or use of low-sulphur (ie imported) coal. But the electricity supply industry has been told by the Department of Energy to budget for at least 12,000MW of FGD (the equivalent of 6 large stations) to limit coal imports. DEn is now assessing the impact of this programme on electricity prices.

12. DOE will shortly issue a consultation paper on implementing LCPD. The forthcoming environment protection Bill will contain powers for the Secretary of State to set emissions targets for industry, and for HMIP to monitor and enforce these through company- and plant-level authorisations.

13. The UK (like the USA) has also signed the 1988 Sofia Protocol to the 1979 UN/ECE Convention on Long-Range Transboundary Air Pollution. This commits signatories to freeze national NOx emissions by 1994 at no more than 1987 levels, and to agree limits from 1996 onwards based on "critical loads" calculations of what levels of pollution local environments can tolerate. Work is now in hand to gather the necessary data on causes and effects, on the basis of which NOx - and SO2 - standards can be reviewed and possibly tightened.

14. The US is so far the only country to experiment with emissions trading. Others have found charging systems easier to reconcile with their legal and financial structures. A study of charging systems in EC countries has recently been completed. While such systems are not very far developed in the UK, it is proposed to introduce cost-recovery charging across the field of environmental protection. Any use of market mechanisms to control pollution would have to operate within the regulatory system, taking account of the need to protect local environments as well as achieving national standards. Emissions trading systems also raise questions about the "licence to pollute" which have yet to be resolved even in the US. We considered introducing emissions trading for the implementation of the large combustion plants directive, but concluded that the company-based procedure we are adopting was more robust and would provide almost all the available economic benefits, while allowing financial transactions in the very peculiar existing plant market (Natpower and Powergen will between them inherit 85% of the emissions) would raise enormous complications.

II. URBAN AIR QUALITY

15. Volatility requirements for gasoline during the summer months would be tightened further so as to reduce emissions of volatile organic compounds (VOCs) by an estimated 8%. The US emitted 19.5 million tonnes of VOCs in 1986 (latest available data) and the UK 2.3mt. That is, 81kg/capita compared to 41kg/capita in the UK.

16. Further reduction in VOC emissions would be achieved by:

i. reductions in vehicle evaporative emissions caused by automobile running losses (4.2%);

ii. federal regulations to control emissions from treatment, storage and disposal of hazardous waste (3.2%);

iii. EPA regulation of emissions from small sources and consumer products, such as consumer solvents and paints (2.5%);

iv. tightening hydrocarbon emission tailpipe standards for automobiles from 0.41 to 0.25 grams per mile (0.4%);

v. a first-time requirement for light duty trucks to meet a tailpipe standard of 0.41 grams per mile (0.2%);

vi. expanded vehicle inspection and maintenance programmes in seriously polluted areas (1.2%);

vii. a requirement for gasoline stations to instal special nozzles on gasoline pumps in seriously polluted areas to reduce evaporative emissions which occur during refuelling (up to 2% in such areas);

viii. control technology guidelines for major stationary source emitters, ie factories and plants (3.5%).

17. The use of alternative "clean" transport fuels such as methanol, natural gas and ethanol is also proposed in those areas of the country where ozone pollution is worst. In particular, measures would be taken to ensure the sale of 500,000 "clean-fuelled" vehicles in 1995 building up to 1 million of them being sold each year from 1997 to 2004. The metropolitan areas included in this plan would be Los Angeles, Houston, New York City, Milwaukee, Baltimore, Philadelphia, Greater Connecticut, San Diego and Chicago. However, if these areas were able to demonstrate that they could achieve comparable reductions in emissions of VOCs (and toxic chemicals like benzene, toluene and xylene) by other means, then they would be able to opt out of the clean-fuelled vehicle and alternative fuels programme, in which case the target numbers for sales of clean fuelled vehicles would be scaled down proportionately.

18. The 20 or so cities with the most serious ozone pollution problems would also be required to take additional steps to cut ozone-causing emissions by 3% per year.

19. As in the case of acid rain causing emissions, the EPA would develop regulations to provide companies with the maximum flexibility in achieving the VOC emission reductions. These regulations would allow automobile manufacturers to engage in "emissions trading" and refiners to engage in "fuel pooling", provided that they were able to demonstrate to the EPA that the net effect would be the same emission reductions as called for in the President's plan.

20. Overall, these measures would be expected almost to halve emissions that cause urban ozone and to bring all but the three most seriously polluted areas (Los Angeles, Houston and New York) within health standards for ozone by the year 2000.

21. When fully implemented, the measures would be expected to cost the economy $3 to $4 billion per annum.

Action in the UK

22. The UK agreed with its EC partners on 9 June new emission standards for cars which will require all new cars sold from 1993 onwards (and many before then) to be fitted with catalytic converters. Emissions of carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx) from each car will be drastically reduced. But carbon dioxide (CO2 - the major "greenhouse" gas) will not. Following UK pressure the Commission will prepare proposals for reducing CO2 emissions eg through promoting greater fuel efficiency. The standards - similar to those already in force in the US - will cost UK industry an extra £1½ billion a year.

23. Volatile organic compounds (VOCs) are hazardous in their own right (in which capacity HMIP is responsible for controlling emissions from industry) and in their ability to combine with NOx to generate photochemical oxidants - ozone, PAN, hydrogen peroxide etc - damaging human health (eg respiratory difficulties) and vegetation. Besides action on NOx and HCs referred to above, the UK has an extensive ozone monitoring network and research programme to identify sources and clarify options for control. The UK is contributing to the work of UNECE, and of the EC which is considering community legislation.

24. 80% of lead in air comes from motor vehicles. Over 20% of motorists now use unleaded petrol (compared to 1% last year) as a result of tax concessions and publicity by the Government, industry and voluntary organisations.

25. Petrol and diesel engined vehicles can meet the tough new car emission standards mentioned above. But alternative fuels would need to be considered if the UK wished to go substantially further. Liquefied natural gas, liquefied petroleum gas, methanol and ethanol offer the potential to reduce air pollution (emitting less NOx, CO and other pollutants) and cut "greenhouse" gas emissions (lower carbon/hydrogen ratio, emitting less CO2). There is no Government programme at present to develop or promote such fuels: it is for industry to consider market opportunities. It has considered fuels such as natural gas and alcohol (in the context of EC surpluses) but has not so far concluded that technical or market conditions justify major R&D expenditure.

III. CARBON MONOXIDE

26. The US emitted 60.9 million tonnes of CO in 1986 (latest available data) compared to 5.1mt for the UK. That is, 253kg/capita compared to 89kg/capita in the UK.

27. Those cities with the most serious carbon monoxide problems would be required during the winter to use gasoline blended with oxygenated fuels, ie ethanol, methanol, ETBE or MTBE. But they would be able to opt out of this requirement if they could demonstrate to the EPA that they could attain the carbon monoxide standard using other measures.

28. EPA would also issue regulations for a carbon monoxide cold temperature standard so as to reduce carbon monoxide problems when motor vehicles are started in exceptionally cold weather.

Action in the UK - see para 22 above.

IV. PARTICULATE MATTER

29. The US emitted 6.8 million tonnes of particulate matter in 1986 (latest available data) compared to 0.3mt for the UK. That is, 28kg/capita compared to 5kg/capita in the UK.

30. Reasonably available control measures would be required to be adopted to meet existing particulate matter standards. Steps would also be taken to ensure that most cities meet the standard by 1994, and all do by 2001.

Action in the UK

31. A proposed EC directive on particulate emissions from HGVs is at an advanced stage, with the UK taking an active role.

V. TOXIC AIR POLLUTANTS

32. A schedule would be established for regulating major sources of toxic air pollution which would require the EPA to publish regulations for controlling ten source categories within two years building up to regulations controlling all necessary categories of air toxics within ten years. These standards would be based on the best technology currently available to cut pollution, although there would be some exceptions to add flexibility for those who had already reduced most air toxics and for very small plants. In addition, voluntary earlier reductions would be encouraged by allowing them to be credited against reductions subsequently required by regulation.

33. After these regulations had been established, the EPA would also be required (in phase II) to assess whether there was any need for further controls to prevent the public from being exposed to "unreasonable risk", although they would be allowed to take into account considerations of cost and technical feasibility as well as health risks.

34. These proposals would be expected (in the first phase) to cut emissions pollutants suspected of causing cancer by 75 to 90%. Annual costs would be around $2 billion per annum.

Action in the UK

35. Hitherto the US has had to prove an airborne chemical unsafe before banning it. It has succeeded in banning few of the chemicals - several hundred in number - that it considers unsafe. Here HMIP has power not only to ban substances that it regards as dangerous (and it will receive wider powers in the environmental protection Bill) but also to control any of the other substances produced by 3,300 scheduled processes. Producers must minimise emissions and render them harmless, using Best Practicable Means (to be redefined as Best Available Technology Not Entailing Excessive Cost: BATNEEC) to which the US "Maximum Available Control Technology" appears to correspond.

36. As with other US proposals, the details, and methods of implementation, are still unclear, and the proposals are likely to be amended in their passage through Congress. We shall watch developments and consider the implications for the UK.

British Embassy, Washington
Air Quality Division, DOE

July 1989

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release June 12, 1989

FACT SHEET:

PRESIDENT BUSH'S CLEAN AIR PLAN

Fulfilling a major campaign commitment, President Bush today proposed a comprehensive program to provide clean air for all Americans.

The President's plan calls for the first sweeping revisions to the Clean Air Act since 1977, and represents the first time an Administration has put forward a proposal since that time.

The President's plan is designed to curb three major threats to the nation's environment and to the health of millions of Americans: acid rain, urban air pollution, and toxic air emissions.

While emissions of some pollutants -- such as sulfur dioxide, urban ozone, and carbon monoxide -- have been reduced since passage of the 1970 law, progress has not come quickly enough. The President's plan will dramatically accelerate the pace of pollution reduction and put America on the path toward markedly cleaner air by the end of the century.

The President's plan will:

- Cut sulfur dioxide emissions virtually in half by the year 2000. The plan calls for a 10 million ton reduction in SO2, and a 2 million ton cut in nitrogen oxide (NOx) emissions, for a total reduction of 12 million tons in acid-rain causing emissions.

- Bring all cities currently not meeting the health standards for ozone and carbon monoxide into attainment. Most cities will attain the standard by 1995, and the plan is designed to ensure attainment in all but the most severely impacted cities by the year 2000.

- Require factories and plants emitting toxic compounds into the air to employ the best technology currently available in order to achieve in the near term a cut estimated at 75 to 90 percent in pollutants suspected of causing cancer. Taken together with efforts to reduce cancer-causing emissions from cars and trucks, it is estimated that the plan will eliminate in its first phase over three-fourths of the annual cancer deaths that air toxics are suspected of causing.

Fundamental Principles

Five goals underlie the President's clean air proposals and the means for accomplishing them:

- Protecting the Public's Health. The goal of the legislation is to prevent public exposure to cancer-causing agents and to protect those citizens, especially vulnerable populations, such as the elderly, asthmatics and children, who live in cities with dirty air that does not conform to national health standards.

- Improving the Quality of Life. The proposal will improve the quality of life for all Americans by exercising responsible stewardship over the environment for future generations.

- Achieving Early Reductions and Steady Progress. The proposal establishes realistic timetables to meet air quality standards, but contains provisions to cut substantial amounts of air pollution in the near term, while requiring steady progress toward reducing emissions that are harder to control.

- Harnessing the Power of the Marketplace. The proposal calls for the use of marketable permits to achieve acid rain reductions and emissions trading to achieve reductions from automobile pollution, so as to clean the air to a definite standard while minimizing the burden on the American economy.

- Employing Innovative Technologies. The proposal encourages development of clean coal technology, alternative fuel systems for automobiles, and other cost-effective means of using new technology to cut pollution.

The President's plan allows for both environmental protection and economic growth, two long-standing concerns often considered at odds with each other. By incorporating both concerns in his proposal, the President seeks to break the gridlock which has characterized the debate on clean air for the past several years.

ACID RAIN

Highlights

- Requires sulfur dioxide reductions of 10 million tons and nitrogen oxide reductions of 2 million tons.
- Calls for five million tons of reductions in the first phase by the end of 1995.
- Establishes a system of marketable permits to allow maximum flexibility for utilities to achieve required reductions in the most efficient and least costly manner.

Background

"Acid rain" occurs when sulfur dioxide (SO2) and nitrogen oxide (NOx) emissions undergo a chemical change in the atmosphere and return to the earth in rain, fog, or snow.

Approximately 20 million tons of SO2 are emitted annually in the U.S., three-quarters from the burning of fossil fuels by electric utilities; 20 percent from other, more widely dispersed industrial sources; and 5 percent from transportation sources. The source of most SO2 emissions causing acid rain are old (pre-1971) electric power plants, not subject to the existing Clean Air Act's strict emissions requirements on newer plants. Fifty power plants are responsible for about half of all SO2 emissions.

Acid rain causes damage to lakes, forests, and buildings, contributes to reduced visibility, and is suspected of causing damage to human health.

Since 1970, the U.S. has spent $225 billion to control air pollution. American industry spends about $33 billion a year on air pollution controls ($10 billion by the electric utility industry). One result of this expenditure is that SO2 emissions have been reduced by almost 20% since 1977, despite a substantial increase in coal consumption during the period since then.

Any acid rain control program will increase electricity rates for affected utilities. Generally speaking, however, proposals with greater flexibility will result in smaller rate increases. Thus, the President's proposal to allow trading among utility companies will ensure that protection from acid rain is achieved in a less costly fashion than many of the more traditional "command and control" proposals that have been advanced.

The President's plan represents a major new innovation in harnessing the power of the marketplace to protect the environment.

The President's proposal calls for:

- A reduction of 10 million tons of sulfur dioxide by the year 2000, using a baseline year of 1980 for tons of SO2 emitted, primarily from coal-fired power plants.

- A two-phase program in order to ensure early reductions. A reduction of five million tons is required during the first phase, by the end of 1995. All dates assume enactment of this legislation by December 31, 1989.

- A 2 million ton reduction of NOx in Phase II.. The plan would allow utilities to trade reductions of NOx for reductions of SO2 or vice versa, and thus represents a call for a total reduction of 12 million tons in acid rain-causing pollutants.

- A three-year extension of the Phase II deadline for plants adopting clean coal repowering technologies, combined with regulatory incentives designed to smooth their transition into the marketplace. This will allow the United States to make good on the major investment the President has called for in clean coal, and will ensure that coal continues to play an important role in America's energy future.

- Freedom of choice in cutting pollution. The plan requires all plants above a certain size in affected states to meet the same emissions standard, but does not dictate to plant managers how the standard should be met. The plan requires the largest polluting plants to make the greatest cuts in pollution. The emissions standard would be set at the rate necessary to achieve five million tons in the first phase. The plan envisions a standard of 2.5 lbs. per million BTU, which would affect 107 plants in 18 states. The standard would then be tightened to approximately 1.2 lbs. per million BTUs so as to achieve a ten million ton reduction in Phase II.

- Maximum flexibility in obtaining reductions. The plan would allow utilities to trade required reductions so that they will be achieved in the least costly fashion. In the first phase, trading would be allowed among electric plants within a state or within a utility system. In addition, full interstate trading would be allowed in phase II.

- The estimated cost of the President's proposal would be $3.8 billion annually in the second phase, and approximately $700 million per year in the first phase. While this represents an increase of over two percent by the year 2000 in the nation's $160 billion a year electricity bill, the flexibility built into the

President's plan reduces, by up to half, the cost of various competing proposals mandating the use of specific technologies.

URBAN AIR QUALITY

Highlights

- Employs a mix of Federal measures and state initiatives to cut sharply air pollution in our Nation's cities. The Federal measures alone will cut emissions that cause urban ozone -- the primary contributor to urban air pollution -- nearly in half, and help bring all cities into compliance with air quality standards.

- Sets realistic timetables for attaining the standards but is designed to ensure steady progress toward meeting that goal.

- Contains new initiatives to promote alternative fuels to reduce pollution from cars, buses, trucks and motor fuels, and to harness the power of the marketplace to ensure cost-effective reductions.

OZONE

Background

Based on data measured during the summers of 1985 to 1987, over 100 million people live in 81 urban areas across the country that exceed the health standard for ozone. In some cities, such as Los Angeles, the situation is persistent and severe (176 days in violation of the health standard in 1988); in other cities the problem is marginal (Lancaster, PA, is listed as a non-attainment area, but, in fact, has exceeded the Federal standard for only a few hours in the last 3 years).

The President's plan is designed to ensure that over two-thirds of the cities now out of attainment -- all but about 25 cities -- come into attainment by 1995. All but the three most seriously polluted areas (Los Angeles, Houston, and New York) will come into attainment by the year 2000; and these special cases will be given until 2010 -- contingent upon a requirement in the President's plan that they show significant annual progress toward cleaning the air and meeting the health standard.

Ozone is formed when volatile organic compounds (VOCs) are mixed with nitrogen oxides (NOx) in the presence of sunlight. Heat speeds up the reaction, and therefore concentrations are usually higher in the summer months. Exceedances of the ozone standard (.12 parts per million) grew sharply during the especially hot summer of 1988. If a city exceeds the standard for at least one

hour on four or more days during a three year period, it is judged to be "out of attainment" with the standard.

Exposure to ozone causes short term effects, such as shortness of breath, coughing, and chest pains, that are particularly acute for asthmatics, children, and senior citizens. Moreover, ozone is suspected of playing a role in the long-term development of chronic lung diseases and permanent lung structure damage. In addition to health effects, ozone has effects on vegetation, including crops such as soybeans, wheat and corn; is damaging forests in California; and is suspected as a contributing agent in damage to forests in the Southeastern U.S.

The major sources of VOCs, the most important ozone pre-cursor, are motor vehicles (40%); small "area sources," e.g., bakeries, dry cleaners, and consumer solvents (40%); large point sources, e.g., petroleum refineries (15%); and gasoline refueling (5%).

Many large point sources have already been required to reduce emissions by roughly 80 percent from uncontrolled levels under the Clean Air Act, and tailpipe emissions from new vehicles have been reduced by 96 percent. The smaller "area" sources are largely uncontrolled.

VOC and NOx emissions have decreased nationally since 1978 -- VOCs by 17 percent and NOx by 8 percent -- despite growth in population, travel and industrial activity. As a consequence, the trend in ambient ozone concentrations declined by 9 percent from 1979 to 1987. Increases occurred again, however, in the hot summers of 1987 and 1988.

The deadline for meeting urban ozone standards set back in 1977 under the existing Clean Air Act has already expired. Despite this progress in reducing ozone, the health standards have not been met within the deadlines. Without new legislation, the EPA will be required by law to impose Federal Implementation Plans (FIPs) on several major American cities. Courts are, for example, already preparing to impose such requirements on Chicago and Los Angeles. These FIPs could involve extraordinary controls that would sharply curb economic growth and dramatically alter the lifestyles of local residents.

Over the next decade, both EPA and the Federal Highway Administration estimate that growth in automobile use will begin to outstrip reductions occuring from fleet turnover, so that VOC emissions will increase after 2000.

Thus, additional measures to reduce ozone-causing emissions are needed if Americans are to have air that is clean enough to meet the health standard. The President's plan sets forth these additional clean air measures.

Some measures required under current law will help reduce VOC's. These include:

- The effect of tightened automobile and truck tailpipe emission standards, which will continue to cut emissions as older cars are replaced with new ones;

- The implementation of required inspection and maintenance programs for motor vehicles by state and local governments;

- Volatility controls on gasoline. Earlier this year, the Bush Administration required a reduction of gasoline volatility (to a standard of 10.5 pounds per square inch);

- Selected stationary source controls on refineries and other factories.

It is estimated that these measures will reduce VOC emissions from baseline levels by 18% by 2005. They will bring 23 cities into attainment by 1995, but without additional controls, increased automobile use would cause many of these to slip back out of attainment, leaving 72 cities out of attainment by 2005.

Additional Federal Measures Under the President's Proposal

In an ambitious effort to bring all cities into attainment, the President's proposals call for:

- Further tightening the volatility requirements for gasoline nationwide during the summer months to reduce evaporative emissions which cause ozone formation. This will reduce VOC emissions by an estimated 8 percent.

- Reductions in vehicle evaporative emissions caused by automobile running losses, which will cut VOC emissions by an estimated 4.2%.

- Federal regulations to control emissions from treatment, storage, and disposal of hazardous wastes, which will cut VOC emissions by 3.2%.

- Providing EPA with the authority to regulate VOC emissions from small sources and consumer products, such as consumer solvents and paints, which EPA estimates will cut VOC emissions by 2.5%.

- Tightening hydrocarbon emission tailpipe standards for automobiles by almost 40%. The current standard will be tightened to the level soon to be required on all California vehicles (from .41 to .25 grams per mile). This will cut VOC emissions by 0.4%.

- A first time requirement for light duty trucks to meet the same tailpipe standard now required of automobiles (.41 gpm). This will cut VOC emissions by 0.2%.

- Expanded vehicle inspection and maintenance programs in serious non-attainment areas, which will cut VOC emissions by 1.2%.

- Controls to reduce evaporative emissions which occur during refueling of motor vehicles. These "stage II" controls would require refueling stations to install special nozzles on gasoline pumps in non-attainment areas, and are expected to reduce VOCs by up to 2% in such areas.

- Provide EPA new authority to issue control technology guidelines (CTGs) to major stationary source emitters (factories and plants). The most cost-effective control guidelines will be issued first. These guidelines are expected to result in a 3.5% reduction in VOC emissions.

- Provide for the use of alternative fuels -- such as clean burning methanol, natural gas, and ethanol -- in the most serious non-attainment areas. The President's plan is designed to ensure that one million clean-fueled vehicles per year are introduced into America's most polluted cities by the year 1997. The program will not only reduce VOC emissions by an additional 2 to 5%, it will dramatically reduce toxic air emissions such as benzene, toluene, and xylene.

- It is estimated that these new federal measures to curb ozone pollution will add $3 to $4 billion in annual costs to the economy when fully implemented.

The Long-Term Clean Fuels Program

The clean fuels program proposed by the President is perhaps the most innovative and far-reaching component of his proposal. It is designed to provide a long-term reconciliation of the environment and the automobile -- so that Americans can continue to enjoy economic growth, freedom in using their motor vehicles, and clean air.

The Administration proposes to replace a portion of the motor vehicle fleet in certain cities with new vehicles that operate on clean burning fuels. In the 9 major urban areas where current data shows the greatest concentration of ozone, the Administration's plan calls for a ten-year program for the phased-in introduction of alternative fuels, and clean-fueled vehicle sales according to the following schedule:

500,000 vehicles in 1995
750,000 vehicles in 1996
1,000,000 vehicles each year from 1997 through 2004

The major metropolitan areas affected by the plan are: Los Angeles, Houston, New York City, Milwaukee, Baltimore, Philadelphia, Greater Connecticut, San Diego, and Chicago. If these areas are able to demonstrate that they can achieve analagous reductions in VOC's and toxic air chemicals through other measures, the plan would allow them to "opt out" of the clean-fueled vehicle and alternative fuels program, in which case the vehicle target numbers would be scaled down proportionately. The plan would also allow other cities to be included in the program at their request.

The President's alternative fuels program, combined with other motor vehicle and fuel measures in the plan, will shrink the contribution of vehicles to the ozone problem from the current 40 percent to ten percent. This represents not only an alternative to some of the more disruptive driving controls currently being considered by some states, but also a bold and innovative means of reconciling continued use of the automobile by a growing society with the need for cleaner air.

Effect of the Federal Measures Proposed by the President

Taken together, the Federal measures proposed by the President, combined with the effect of measures being pursued under current law, will cut ozone-causing VOC emissions nearly in half. EPA estimates the program will reduce annual emissions by 45% by the year 2005. In and of themselves, these measures will bring all but about 20 cities into attainment of the ozone standard.

Because of the President's commitment to ensuring clean air in all American cities, however, his plan calls for additional measures to be undertaken by the states in order to meet the standard for healthy air.

State Measures Under the President's Proposal

Under the President's proposal, the roughly 20 cities with the most serious ozone pollution problems would be required to take steps to cut ozone-causing emissions by 3 percent per year beginning with enactment of the legislation.

This will guarantee that, even as more realistic deadlines for meeting the standard are set, those cities with the most significant air pollution problems will be on a steady path toward cleaner air.

Because of ozone transport, some areas may be unable to attain the standard in spite of adequate efforts to control their own pollution. Cities under 200,000 in population, which are not part of regional airsheds but whose attainment is prevented as a result of ozone pollution transported from other cities or regions, will not be subject to sanctions under these circumstances.

Emissions Trading: Harnessing the Power of the Marketplace to Protect the Environment

The President has also directed the EPA to develop rules and regulations which will provide companies with the maximum flexibility in achieving the pollution reductions called for in his plan.

Specifically, the President's plan would require the Administrator to issue regulations within 18 months to allow automobile manufacturers to engage in "emissions trading" and refiners to engage in "fuel pooling" to the maximum extent feasible. Such regulations shall establish preformance standards for vehicles and transportation fuels marketed in the most serious and severe non-attainment areas. Companies would then be able to choose to engage in "emissions trading" and "fuel pooling" so long as they can demonstrate to EPA that the combination of measures they select will allow them to achieve the same emissions reductions as the control measures outlined in the President's program.

This "emissions trading" concept is already being considered by the State of California. It represents a market-based means of reducing both VOCs and reactive aromatics in the most cost-effective way. The EPA would publish these regulations at the same time as it publishes regulations implementing the other control measures in the President's plan. If companies cannot demonstrate alternative means of achieving the same amount of pollution reduction, they would be required to implement the control measures outlined above.

CARBON MONOXIDE

Background

Carbon monoxide (CO) is a colorless, odorless gas that tends to reduce the oxygen carrying capacity of the blood. It is a particularly serious health threat to individuals who suffer from cardiovascular disease, especially those with angina or heart disease. Unlike ozone, carbon monoxide problems are worse in cold weather.

Two-thirds of CO emissions come from motor vehicles. Emissions of carbon monoxide decreased 25 percent from 1978 to 1987, despite a 24 percent increase in vehicle miles travelled during that period, largely because of controls already in place on emissions from cars, buses, and trucks. Some improvement from these

controls will continue, as older, more heavily polluting cars are gradually replaced on America's roads by newer, cleaner vehicles. Currently, cars purchased before 1981 amount to only 38 percent of the vehicles miles traveled (VMT), but they account for over 86 percent of CO emissions.

As use of the automobile continues to grow, however, it is expected that many American cities will not attain the health-based carbon monoxide standard. That standard is 9 parts per million (ppm), measured over an 8-hour period. If a representative reading of monitors in an area shows that it exceeds the standard for two or more 8-hour periods, it is classified in "non-attainment."

There are currently about 50 American cities not meeting the standard. As with ozone, in some cases cities exceed the standard only moderately. About 6 urban areas, however, have a carbon monoxide problem classified by EPA as "serious".

EPA estimates that even as vehicle miles travelled (VMT) grow, the effect of fleet turnover will bring almost half of those cities currently violating the standard into attainment. Several of the measures in the President's proposal designed to curb ozone-causing emissions will also help reduce carbon monoxide. These include the measures described above to tighten tailpipe standards for light duty trucks, and to improve state and local inspection and maintenance programs.

Even with these measures, however, several American cities will continue to have a carbon monoxide problem. To bring these cities into compliance with the health-based standard, the President's proposal contains several important measures designed to cut carbon monoxide emissions.

Specifically, the President's plan calls for:

- o A major new program to promote the use of clean-burning oxygenated fuels, which emit dramatically less carbon monoxide. The plan would require those cities with the most serious carbon monoxide problems to use gasoline blended with oxygenated fuels during the winter months. Oxygenated fuels include ethanol, methanol, ETBE, and MTBE.

  Blending oxygenates into fuel will not only reduce carbon monoxide, it will also sharply reduce toxic air emissions caused by aromatics in conventional gasoline.

  Ethanol and ETBE are generally produced in the US from corn, wheat and potato crops. They offer the opportunity both to clean the air and to provide expanded markets for America's farmers.

  The President's plan would allow cities to "opt out"

of the oxygenated fuels requirement, if they could demonstrate to EPA that they would come into attainment of the carbon monoxide standard using other measures.

EPA estimates that requiring oxygenated fuels in areas with serious carbon monoxide problems will reduce carbon monoxide emissions by an additional 18% in these areas.

- Giving EPA the authority to issue regulations for a carbon monoxide cold temperature standard. Carbon monoxide problems are exaggerated when motor vehicles start in exceptionally cold weather. This standard has the potential to reduce carbon monoxide emissions by 7 to 12 percent.

The President's plan will bring the vast majority of cities into attainment with the carbon monoxide standard by 1995, and will bring all American cities into attainment by the year 2000.

PARTICULATE MATTER

Background

Particulate matter (PM10) includes acid sulfates, toxic organics and metals, and insoluble dusts that come from traditional stack emissions, as well as area sources such as wood stoves and open burning. Construction, roadways and mobile sources also contribute to the problem.

PM10 can cause premature death in elderly and ill persons, aggravation of existing respiratory disease, increased respiratory illness and other effects.

Particulate matter (PM10) standards were revised in 1987 to address smaller particulate matter particles most likely to penetrate the lungs.

The President's program will:

- Require reasonably available control measures to meet the standard.

- Ensure that the majority of cities meet the standard by 1994, and that all cities meet PM10 standards by 2001.

TOXIC AIR POLLUTANTS

Highlights

- Dramatically accelerates progress in controlling major

toxic air pollutants.

- Uses best technology available to cut air toxics.
- Promises certifiable progress in regulating sources of toxic air emissions on a set schedule.

Background

The emission of toxic chemicals into the air is believed to cause cancer and other health effects in humans.

Since 1974, EPA has been required to regulate such emissions in order to provide an "ample margin of safety" to the public. Because this margin has been difficult to define and has been the subject of continued litigation, EPA has had difficulty proceeding with regulation under the law. Since passage of the statute, it has published regulations for only seven toxic air pollutants.

Because the statute has proven unworkable, the President has proposed a major revision of the law in order to guarantee greatly accelerated progress in reducing the damaging effects of toxic air pollution.

Data recently released by the EPA indicate that 2.7 billion pounds of toxic chemicals are emitted into the air each year. EPA estimates that these emissions contribute to approximately 1500-3000 fatal cancers annually. Toxic chemical emissions are associated also with respiratory disease and birth defects.

Motor vehicles and stationary sources each account for approximately half of air toxic emissions. The measures in the President's plan designed to curb VOC emissions and promote alternative fuels will sharply reduce emissions from motor vehicles.

The President's plan also includes a major new initiative to reduce air toxic emissions from stationary sources (factories, plants, and other such sources).

A majority of identified carcinogens are emitted by about 30 industrial categories, including steel mills (coke ovens), rubber, pulp and paper, chromium electroplating, and solvent users. The President's plan is designed to reduce quickly emissions from these sources.

The President's program will:

- Establish a set schedule for regulating major sources of toxic air pollution. Under the plan, EPA will publish regulations for controlling ten source categories within two years, 25 percent of source categories within four years, 50 percent of source

categories within seven years, and all necessary additional categories of air toxics within ten years.

- Require emitters of toxic air pollution to use the Maximum Available Control Technology (MACT) to sharply cut pollution. This means that EPA would set a standard based on the best technology currently available. Plants would then be required to meet that standard, with some exceptions to add flexibility for those who have already reduced most air toxics and for very small plants.

- Encourage voluntary reductions early, before standards are even published, by providing credit for those reductions against the MACT requirement.

- After Phase I is implemented, the EPA Administrator shall assess any remaining risk after reductions from state-of-the-art technology and determine if there is a need for further controls. Based on his assessment, the EPA Administrator would set additional standards to prevent the public from being exposed to "unreasonable risk", which would allow considerations of cost and technical feasibility as well as health-based risks.

It is estimated that the President's air toxics initiative will eliminate in the first phase about three-quarters of the cancer deaths caused by toxic air emissions from factories and plants.

The annual costs of the program are difficult to estimate until actual standards are published, but current EPA estimates center at about $2.0 billion per year.

# # # # # #

Acid Rain
pt 11

PRIME MINISTER

INTEGRATED POLLUTION CONTROL

I enclose a draft consultation paper which sets out proposals for a new statutory framework within which Her Majesty's Inspectorate of Pollution (HMIP) would regulate the polluting emissions from scheduled industrial processes. The new arrangements are designed to give statutory expression to the cross-media approach to pollution control which underlay the creation of HMIP in April 1987.

Under the existing legal arrangements:

(a) HMIP regulates discharges to air from some 2000 industrial sites;

(b) under new proposals which have been agreed in principle, about 500 sites involving industrial processes which discharge the most hazardous substances to water (the "Red List") will also come under HMIP's oversight. There is some overlap between these two kinds of sites;

(c) currently there are no controls over the output of 'special wastes' - hazardous and difficult wastes specified in Regulations which are taken off-site for disposal.

Under the proposed new legal framework HMIP would regulate all the polluting discharges from the processes under its control looking in each case at the whole process and considering its impact on the environment as a whole. The new framework would provide for a more coherent application of existing controls, covering all media and where appropriate, requiring the use of "best available technology not entailing excessive cost". New standards of control would not be applied, except in the case of 'special wastes', the output of which would be subject to control for the first time.

Most large generators of 'special waste' are already regulated by HMIP in respect of their discharges to air or water. To avoid anomalies I propose that the generation of special wastes in significant quantities should become a new criterion for prescribing an industrial process for HMIP control. I do not believe that this criterion would add many sites to those already controlled by HMIP. Depending on the threshold fixed, the maximum number seems unlikely to exceed 500 and in practice will probably be much fewer. The consultation process will serve to clarify the numbers involved.

The new framework would go some considerable way towards implementing the Royal Commission on Environmental Pollution's concept of "best practicable environmental option" first put forward in 1976 and described more fully in a report published earlier this year. The Government has subscribed to this approach. it would also fulfil the remit given to HMIP in the Action Plan following the Efficiency Scrutiny Report, "Inspecting Industry: Pollution and Safety", to develop an integrated approach to pollution control, and would give HMIP a sound and coherent statutory basis.

The benefits of the new framework would be considerable. Because the industrial process and the impact of its discharges to the environment would be considered as a whole, the environment would gain through the optimisation of decisions on pollution control. Industry would gain partly through the technological efficiency that would come from looking at its operations in the round and partly from operating under a coherent system with one inspector granting a single authorisation.

I believe the proposals will generally be welcomed by industry. The additional costs of the new framework both in industry and in government should be small and should be offset, or more than offset, by gains in efficiency. I attach a draft Compliance Cost

Assessment which I propose to publish with the consultation document.

I would also expect the environmental world to give general support to the proposals, as a move in the right direction.

The proposals would require primary legislation. I also have a number of other environmental protection proposals which already have policy approval and which are also awaiting a legislative opportunity. I shall be bidding accordingly for a place in a future legislative programme. But I would make it clear in issuing the consultation paper that these proposals would have to wait for a suitable legislative opportunity.

I am hoping to issue this consultation paper, together with one on the Red List mentioned above, before Parliament rises for the Summer. I hope that we can reach agreement in correspondence, and should therefore welcome any comments by not later than 26 July.

I am copying this letter to members of E(A), the Lord President and to Sir Robin Butler.

Deborah Lamb

pp. NR

15 July 1988

(approved by the Secretary of State in draft & signed in his absence)

INTEGRATED POLLUTION CONTROL : DRAFT CONSULTATION PAPER
EIGHTH DRAFT - 13.07.88

SUMMARY

1. The Government has given high priority to protecting the environment. It created Her Majesty's Inspectorate of Pollution (HMIP) to regulate discharges of harmful substances so that the control of the most serious pollution could be made more efficient and effective without imposing excessive costs or an increased regulatory burden on industry. Scientific evidence continues to accumulate that shows pollutants interact with many different parts of the environment. The Royal Commission on Environmental Pollution have stressed and the Government have accepted, that wastes should be disposed of according to the "Best Practicable Environmental Option" (BPEO).

2. The broad objective of this consultation is therefore to match the pollution control system more closely to our developing understanding of the nature of our surroundings. It has the following broad aims:

   a. To develop an approach to pollution control that considers discharges from industrial processes to all media in the context of the effects on people and the environment as a whole;

   b. To improve the efficiency and effectiveness of HMIP;

   c. To streamline the regulatory system, clarifying the roles and responsibilities of HMIP, other regulatory authorities, and the firms they regulate;

   d. To contain the burden on industry;

   e. To maintain public confidence in the regulatory system by producing a transparent system that is accessible and easy to understand and clear and simple in operation;

   f. To ensure that the system will respond flexibly, both to changing pollution abatement technology and to new knowledge on the effects of pollutants.

   This consultation paper proposes that a system of integrated pollution control (IPC) should be introduced for certain types of industrial processes that discharge significant quantities of harmful wastes. HMIP would be the statutory pollution control agency for these industrial processes. Such processes would be prescribed by the Secretary of State according to published criteria.

3. HMIP would examine, and where appropriate grant consent to, the process technology and methods of operation to be adopted by the operator of a scheduled process and the levels of

discharge to all three environmental media (air, land, and water) in the context of existing limits and the environment as a whole.

4. Before operating a scheduled process operators would be required to obtain the prior approval of HMIP by making application for an authorisation. Authorisation would be through the issue of a consent to which would be attached whatever conditions were thought necesary to protect people, and the environment as a whole.

5. Consents would be reviewed at intervals by HMIP, or at the request of the operator.

6. An enforcement and appeals regime would be used similar to those currently applied to discharges and proposed for discharges to air and water.

7. The paper has 5 sections:

   - the first outlines the background to these proposals and the reasoning that leads the Government to believe integrated pollution control is needed;

   - the second and third examine the options on systems and legislation;

   - the fourth deals with issues of implementation that are largely independent of the exact method of integration chosen;

   - the fifth describes the arrangements for addressing comments to the Department.

Note

This consultation exercise is one of several that the Department has launched recently on environmental protection issues. A list is at Annex 1. The proposals in this consultation are compatible with, but separable from, the current policy developments in the single medium pollution control systems. The proposals seek to establish a framework for integrated pollution control. They do not include any propositions on the stringency of controls in any medium.

PART I

THE CASE FOR INTEGRATION

Purpose of the consultation

1. This consultation exercise sets out the reasons for a move to integrated pollution control and seeks views on two more detailed topics:

   a. the mechanism for implementing an integrated system of pollution control for processes prescribed for HMIP jurisdiction;

   b. the form of the legislation needed to give HMIP the necessary statutory powers.

   The first of these issues is analysed in part II, the second is discussed in part III.

The case for integration

2. The UK's existing pollution control system has been developed piecemeal over many decades. As a result control over discharges to the different environmental media is currently exercised by a range of different authorities operating under a variety of legislation. The last few years have seen a rapid growth in understanding of the inter-related nature of our environment which is outlined later in this section. This has led to a widespread appreciation that tighter standards in any one environmental medium generate pressures on the other media. Furthermore, the report of the World Commission on Environment and Development ("Our Common Future") lent currency to the view that economic development and environmental concerns should be complementary. Leading industrialists have responded positively to these developments; many companies already have their own environmental policies and strategies.

3. The further evolution of the UK pollution control system should take such developments into account, and recognise that no one part of the environment is necessarily separate from any other. The environment functions as an integrated whole and each part is to some degree dependent on the other. Recognition of this inter-relatedness would improve our ability to constrain and reduce pollution, and would have the following policy advantages:

   a. Pollution control policy would more closely fit the real nature of the environment, leading to more streamlined and coherent regulation with the minimum of intervention. The waste management of a number of processes would benefit from a cross-media approach to pollution control.

   b. The regulatory burden on industry would be reduced.

c. More efficient use would be made of pollution control resources.

These points are examined in more detail in paragraphs 16 to 20.

The development of the UK approach to pollution control

4. Air and water pollution has been controlled by legislation in Britain since Victorian times. In the case of water, the tradition embodied in the Public Health Acts and the later Rivers: Control of Pollution Acts has focussed on the management of the receiving environment and on the imposition of conditions on all discharges which can affect its suitability for the uses to which it is put.

5. For air, the Alkali Acts from 1863 to 1906 established four broad principles:

a. controls would be applied when the scientific evidence justified it;

b. pollution should be prevented at source;

c. the best commercially viable technology should be used to effect abatement of emissions or discharges;

d. the polluter should bear the costs of the necessary controls.

6. Whatever the medium, preventive action to limit emissions and discharges to the environment remains at the heart of the UK approach to pollution control, and is taken whenever the scientific evidence warrants it. Within the preventive approach there are times when precautionary action is necessary before there is scientific certainty but where there is evidence of a serious risk that severe damage may result if early and appropriate action is not taken (as was done in the case of contamination of the atmosphere by chlorofluorocarbons).

7. Because of this well-established preventive and precautionary approach to pollution control, Britain now has a cleaner and safer environment than at any time since the Industrial Revolution. This does not mean, however, that all pollution problems have been solved. As the grosser forms of pollution are eliminated or reduced to acceptable dimensions, more insidious and intractable problems emerge. Acid rain and the ozone hole provide ample evidence of the complex and unexpected interractions that can occur between pollutants and various parts of the environment.

The Royal Commission on Environmental Pollution (RCEP)

8. The RCEP provides the Government with independent and authoritative advice on environmental pollution issues. It has already examined certain aspects of an integrated approach to pollution control. One of its most notable

contributions is the idea that wastes should be disposed of according to the "best practicable environmental option" (BPEO). In the 5th report of the RCEP, where the BPEO concept was first outlined, adopting a BPEO-approach meant reducing or modifying waste generation and directing what waste there was to the environmental sector where the least overall environmental damage would be done. In the recently published 12th report the RCEP have been more explicit in their definition:

"A BPEO is the outcome of a systematic consultative and decision making procedure which emphasises the protection of the environment across land, air and water. The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefit or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term."

9. As clearly set out in Pollution Paper 22 the Government has long accepted the concept of BPEO. Disposing of wastes according to the BPEO is one of the seven points of the "environmental charter" set out in "Protecting Your Environment - a Guide" which was recently issued in the name of the 5 Government Departments with prime responsibilities for environment protection.

10. If, however, the UK pollution control system is to be improved to take account of the integrated nature of the environment along the lines the RCEP have recommended, two consequences of current practice must be recognised. First, that pollutants have effects in media other than those into which they have been released, and second, that reducing opportunities to dispose of a waste to one medium often increases the need to dispose of the waste (or its modified components) into one of the other media. The optimal disposal route for a particular waste will only be found if both these points are taken into account, and the option selected that causes least overall damage to the environment. At present there is no statutory provision through which such a balanced "cross-media" approach to pollution control could be taken. Legislation is thus required to put the approach into practical operation.

Her Majesty's Inspectorate of Pollution (HMIP)

11. RCEP's long running interest in BPEO was accompanied by recommendations that a body with the necessary resources to implement a BPEO regime should be created with responsibility for ensuring that wastes were disposed with regard to minimising effects in all three environmental media (land, air, and water). These recommendations were echoed by an Efficiency Scrutiny of pollution control ("Inspecting Industry: Pollution and Safety") which stated:

"If pollution inspection treats air, land and water disposal as three separate issues there is therefore a danger that

a. the allocation of available resources to each of the three media will not reflect an overall view of where the problems are most severe; and

b. the end result will be a haphazard disposal of pollutants to one medium or another unrelated to an overall assessment of which medium is best for each particular pollutant an any particular circumstances."

The Scrutiny recommended that a new combined "Pollution Inspectorate" should be formed out of the existiing separate Inspectorates.

12. In its reponse to the Scrutiny - the HMIP Action Plan - the Government accepted the need for such an inspectorate, and agreed that legislation would be necesary. Further, they said the main pollution control priorities of the unified Inspectorate would be:

"..the development of a more integrated approach to the control of pollution from major industrial processes."

and

"..to develop proposals for minimising as far as practicable both the amount and the harmful effects of wastes arising, in whatever form, from such processes."

13. Accordingly HMIP was established on 1 April 1987 as a first step towards integrated pollution control (IPC). Under the Director there are two Chief Inspectors, one responsible for Radioactive discharges and the disposal of radioactive wastes and the other responsible for certain non-radioactive discharges to air, to water and for certain aspects ofland waste disposal.

14. The proposals in this paper relate solely to the responsibilities of the latter Chief Inspector and his staff in the AWW Division of HMIP. This group currently have statutory powers under the Health and Safety at Work etc Act (1974), for the control of emissions to air from processes scheduled under the Health and Safety (Emissions to the Atmosphere) Regulations 1983. The AWW Division also has advisory responsibilities for controlled wastes and for authorising and monitoring certain discharges to water (eg those from sewage treatment works).

15. Radioactive wastes are already effectively regulated in an integrated manner under the Radioactive Substances Act 1960. The approach adopted takes full account of impacts on man of alternative waste management scenarios and ensures that operators use best practicable means to achieve the best practicable environmental option. Radioactive wastes will not be considered further in this paper, although in the longer term they should undoubtedly form part of a fully integrated control system.

16. These proposals relate to England and Wales. They do not apply to Scotland and Northern Ireland which have separate statutes and arrangements for pollution control.

Practical benefits of integrated pollution control

17. Earlier in this section we set out the environmental justification for integration and the weight of opinion that has been convinced of its advantages. The practical benefits of the policy will be:

a. Improved ability to constrain and reduce pollution

18. As waste management would be considered in the round from the outset of the design of a plant it will become possible to select an optimal process which will be more durable and less prone to unexpected problems. It will be less likely that waste disposal will passively follow the line of least resistance which inevitably runs the risk of being haphazard, a waste of resources, and a source of future problems.

19. In an internal study in 1976, the Department of the Environment (DoE) and the Industrial Air Pollution Inspectorate (IAPI) estimated that over half the air pollution Inspectorate's scheduled processes might be suitable for "cross-media" control. A number of industrial sectors have already benefited from taking a more integrated approach to pollution control. These include:

- chemical production
- paint manufacture
- metal plating/refining
- cement production
- leather tanning

In addition the need to reduce inputs of pollutants to the North Sea is likely to give rise to a number of difficult disposal problems that a more integrated approach to pollution control would help to resolve.

b. Reduced burden on industry

20. Major dischargers of harmful wastes would find that IPC would provide a streamlined authorisation procedure for scheduled processes. This would help industry view their disposal options in the round. In so doing they may save costs and identify new business opportunities. Industry would, of course, continue to apply other statutory requirements outside the scheduling system, such as the proposed duty of care for the disposal of land wastes. The integrated approach would, for the first time, provide a common cross-media control philosophy within which all these requirements, and the relationships between them, could be viewed.

c. More efficient use of pollution control resources

21. By obviating the need for HMIP to maintain a structure based on regulating discharges to the three media separately, better use would be made of its resources. The Inspectorate's existing advisory role, including the advice they provide to Waste Disposal Authorities, would continue.

International commitments

22. It is of prime importance that developments within the pollution control system in the UK should be fully compatible with EC legislation, and give due weight to international agreements such as the Ministerial Declaration adopted at the Second International Conference on the North Sea. The EC and other international organisations are moving towards the harmonisation of pollution control standards and procedures with increasing momentum. Already over 200 EC Directives apply standards of environmental protection in UK law.

The Government's overall intent

23. In introducing integrated pollution control the Government is not setting out to enlarge substantially the number of processes scheduled for control by HMIP or to set more stringent pollution control standards. The intention is to create a new framework within which control can be applied more effectively.

CONCLUSION

24. From the preceding analysis the Government has concluded that a method of integrated pollution control is needed which:

a. introduces an effective cross-media approach to pollution control leading to a real and lasting overall reduction in pollution;

b. fully accords with the UK's EC and international commitments;

c. builds upon the existing UK approach to pollution control in recognising the need to balance the application and cost of technology with effective protection of the environment in terms of, for example, Environmental Quality objectives [EQOs] and standards.

d. is clear and transparent in operation;

e. does not impose excessive costs or delays upon industry;

f. is practicable and cost-effective to implement;

g. is adaptable to future developments in both science and technology.

PART II

AN INTEGRATED POLLUTION CONTROL (IPC) SYSTEM

Outline of an operational framework

25. The Government envisages that the key elements in a regulatory system for IPC would be those currently used, or proposed for use, by HMIP to regulate emissions to air in conformity with the EC air framework Directives to regulate discharges to water in conformity with the proposed approach for red list substances, and to meet all relevant EQOs and standards. These elements would be:

    a. Technology-based control: The Inspectorate would apply an integrated approach to all the polluting emissions of plant operating scheduled processes. Any aspects of a non-scheduled process operated on the same site would also come within their purview if those aspects were relevant to the control of emissions from scheduled processes. HMIP would consider the process technology, discharge abatement techniques and waste disposal methods to be used to ensure the protection of people and the environment as a whole.

    b. Scheduling: Processes to be subject to IPC would be prescribed by the Secretary of State on the basis of published criteria.

    c. Prior approval: The operator would have to apply to HMIP for authorisation before operating a new scheduled process or substantially modifying an existing one.

    d. Issuing authorisations: Within a specified time period, HMIP would ,if satisfied, issue an authorisation setting out such conditions as it thought were necessary to protect people and the environment.

    e. Review of authorisations: The authorisations would be subject to review at the instigation of either the operator or HMIP in the event of changes to the Process, new knowledge of the effects of pollutants or new technological developments. Transitional arrangements would ensure that existing authorisations continue to have effect until the new system is applied by the Inspectorate.

f. IPC Notes: These would serve the same function as the BPM Notes currently issued by HMIP for air pollution control. They would be sources of information about preferred technologies and the discharge limits HMIP would expect to be met. BPM notes would guide the introduction of the system, with IPC Notes becoming available gradually. As with BPM Notes, they would be revised periodically. Industry would be consulted about the timetable for the preparation of these notes and their content and the timetable for upgrading existing plants to new standards along similar lines to the requirements of article 13 of the Air Framework Directive. The system of waste management papers would continue as at present.

OPERATIONAL DETAILS OF IPC

26. In addition to the outline, the Government is keen to obtain views, especially from those likely to be affected, on detailed aspects of the proposed regulatory regime (paragraphs 26-36).

Criteria for scheduling

27. Comments are invited on what criteria and thresholds should be used for scheduling classes of process for IPC by HMIP. It is envisaged that the processes scheduled for IPC would initially be:

- processes in Air Pollution Part A;*
- processes discharging "red list" substances to water and sewers in significant quantities;+
- processes generating large amounts of special wastes.**

This would represent a minimal change over the scope of existing or prospective controls. This is important in order to ensure that integration can be introduced without disruption to industry. It would, however, be the first time that producers of solid wastes were specifically included amongst processes liable to control by HMIP.

Footnote: 1.* "Air Pollution Part A" means those processes listed in Part A of the December 1986 Air Pollution Consultation Paper entitled: "Air Pollution Control in Great Britain: Review and Proposals"

2.+ "Red List" this is a list of harmful substances which will be subject to control by the use of BATNEEC to minimise discharges to water. The list will be specified in a separate consultation paper.

3.** "Special wastes" will be identified from the definitions given in the Control of Pollution (Special Wastes) Regulations 1980.

28. As the aim is to control industrial operations so that they do least possible harm to people and the environment as a whole a more finely-tuned objective might be a single coherent set of criteria applicable to all three environmental media which would determine the processes to be scheduled. At present the Government considers these might relate to the potential for harm of the substances discharged by a process to any medium, judged on the basis of:

- the toxicity of the substances discharged;
- their persistence in the receiving environment;
- the degree of difficulty of controlling the discharges or their effects;
- the potential for cross-media transfers between disposal routes.

However, a system of scheduling built on such a list is at present only a long term aim. It is the Government's intention that IPC would be introduced on the basis of the criteria set out in paragraph 26. The above list could be reconsidered at a later date in the light of experience. The criteria for scheduling, either initially as proposed in paragraph 26 or on a broader basis in the future as suggested in paragraph 27, would apply equally to all sectors of industry.

The means through which IPC would be achieved

29. The traditional means of HMIP control over processes scheduled for air pollution control has been the duty on the operator to apply the "best practicable means" (BPM) to prevent emissions arising at source and to render any emissions that do occur - in the words of the Health and Safety at Work Act (1974) - "harmless and inoffensive". This has proved a powerful and adaptable means of control, well understood and accepted by industry, which the RCEP has endorsed as being the appropriate means of applying the concept of BPEO. The Government is very much in favour of retaining the essence of the best practicable means approach in the proposed IPC system.

30. There are, however, some points of clarification which it would be helpful to incorporate into the legislation. As applied by HMIP and its predecessors over many decades, the term BPM entails using the best commercially available technology at a reasonable cost with maintenance and supervision of the process according to best practice. For the sake of international consitency of terminology, however, the Government thinks it appropriate to use the formulation found in the EC Directives of "Best Available Technology Not Entailing Excessive Costs" (BATNEEC) across all the media as appropriate. This formulation spells out more explicitly the considerations involved in applying BPM. Furthermore, the IPC system has to recognise that for water, apart from the red list, the control system is based on quality objectives for receiving waters.

31. In issuing an authorisation HMIP would examine the application in the context of the whole site in which the plant operating a scheduled process was located (see paragraph 24(a)). This would enable them to examine the relationship between a particular scheduled process and any other processes on that site, whether or not they were scheduled.

32. In determining an application for authorisation HMIP would consider:

- the proposed technology of the plant operating the process, so as to prevent harm to health and the environment;

- operation of the process and ancillary matters in accordance with best practice;

in the context of all existing standards, ensuring that no existing international, EC or UK standards, including quality standards and limit values, would be breached by any IPC consent. This would mean that HMIP would require the use of BATNEEC to prevent the emission or discharge of pollutants:

a. In every case where EC Directives require this;

b. For specified processes or harmful substances discharged to specified environmental media;

In addition, the overall pattern of wastes discharged from a plant operating a scheduled process would be considered by the Inspectorate, in the context of their consideration of the process, in order to render any emissions that do occur harmless and inoffensive to the environment as a whole.

In setting the terms and conditions of the authorisation the Inspectorate must observe all relevant quality objectives and conditions required by the NRA for the protection of the receiving water and must have regard to the views of other statutory consultees as appropriate.

33. The Government recognises that cost effective pollution control must strike a balance between the extent to which available technology is applied to minimise discharges and the capacity of the environment to absorb and neutralise a degree of contamination. For discharges to water the proposed red list identifies substances which are considered particularly harmful to the aquatic environment because of their toxicity and persistence; for these substances discharges must be minimised by the use of BATNEEC, with the added proviso that the resultant discharge must not lead to a breach of the environmental quality standard for that substance in the receiving water. But for almost all other substances discharged to water it is more appropriate to make use of the absorptive capacity of the environment and to set discharge limits for these substances which would satisfy the environmental quality objective for that particular receiving water.

34. HMIP would therefore examine a plant operating a scheduled process, employing BATNEEC, where required, as described in paragraph 31, to prevent the emission or discharge of pollutants. If the operation of BATNEEC still permitted significant air pollution further controls would have to be applied. When, in the case of red-list substances, the EQO and BATNEEC suggest differing levels on discharge the tighter of the two requirements would apply. The NRA, in consultation with HMIP, will determine whether any relevant EQO has been satisfied. For non-red-list substances discharged to water to which an EQO applies, meeting or falling within the EQO would be sufficient demonstration that environmental controls were being adequately operated. The consent would carry conditions to ensure that the discharges are rendered harmless and inoffensive to people and the environment as a whole.

35. HMIP would not set limits unnecessarily on discharges of little or no environmental significance. In many instances relating to existing plants they are likely to find that the current mix of discharges already meets the needs of IPC. In line with the responsibility given to them in the Action Plan, HMIP would develop close working relationships with the other pollution control authorities whose broader responsibilities for environmental quality complement the technological controls HMIP would bring to bear on the relatively small number of scheduled processes. The National Rivers Authority, local pollution control authorities (for example, District Councils and Waste Disposal Authorities), and Water Utilities would be consulted as appropriate when HMIP considered applications for consent from operators of scheduled processes. The detail of the interface between HMIP and the NRA is an issue which is not yet determined and which is covered in the consultation paper on the red list.

Deciding the details of the consent

36. The Government would be interested to receive views on the factors HMIP should bear in mind when determining a consent or its conditions. At present it is proposed that the following would be taken into account when deciding the details of a particular consent:

- the current state of technology;
- the requirements of EC legislation and other existing standards and quality objectives (such as EQOs for water);
- the view of the National Rivers Authority or any statutory consultee;
- their perception of the risks of any discharges or the environmental risks inherent in the operation of any scheduled process (leaving health and safety matters to HSE);
- environmental effects (using Environmental Assessment information as appropriate);
- how the production processes and control techniques would be operated;
- costs of the controls;

- any other relevant factors - IPC Notes giving generic guidance which operators could be sure HMIP would take into account.

Information to be included in IPC consents

37. Comments on the information to be included in consents would also be welcomed, especially as the information would be open to public examination (see para 42(iv) below). A list of the information that might be included on an IPC consent is given in Annex 2.

38. There will be a need to ensure that the development of IPC does not conflict in any way with controls dealing with risks to the health and safety of workers and the public, matters for which HSE has the regulatory responsibility under the Health and Safety at Work Act and allied regulations. HMIP will continue to maintain and develop an effective working relationship with HSE so that employers are not subjected to inconsistent requirements as regards either plant operation, or the design of new plant.

Pollution control of non-scheduled processes

39. There are no proposals to extend IPC to processes other than those regulated by HMIP. All other processes would continue to be regulated on a single-medium basis by pollution control authorities as presently applies under existing legislation.

PART IV

THE LEGISLATIVE FRAMEWORK

40. The existing pollution control system for most industrial processes is based upon the requirements of the Control of Pollution Act 1974 (COPA), the Food and Environmental Protection Act 1985 (FEPA) and the Health and Safety at Work etc Act 1974 (HSWA). Additional protection is provided by the Public Health and the Clean Air Acts.

41. COPA contains the main UK legislation governing the control of discharges to water and the disposal of waste to land. FEPA adds controls over pesticides and the disposal of waste at sea. Both Acts adopt a consent based approach to control. This requires anyone who discharges or disposes substances defined in the Act or regulations to obtain consent from the competent authority. HSWA, which contains the main UK legislation relating to the control of industrial air pollution, places operators of scheduled processes under a duty to use Best Practicable Means (BPM) to control their discharges to air; operations need the prior approval of HMIP.

42. The new legislative framework will need to build upon aspects of the related legislation which are now well established and widely understood. This will ensure that integration can be

introduced with the minimum of disruption to industry whilst maintaining the continuity of present controls - paying particular attention to the need to keep within all European standards and domestic control regimes, such as EQOs.

43. This suggests three main options for the practical operation of integration:

a. A duty based approach, under which the operator of a particular scheduled process would be given a duty to achieve integrated control using BATNEEC as appropriate, in conjunction with a very brief consent. This model places the onus for achieving effective integration upon the operator. It would automatically adapt to changes in technology and would be simple for the Inspectorate to administer. However, it lacks clarity -neither statute nor the consent would specify what the operator would have to do to comply with the law and there would be no means of demonstrating that waste was being disposed of in the most effective manner. This option does not therefore meet the Government's requirement for a clearly defined and more transparent system.

b. A consent based approach, under which all scheduled processes would require a detailed consent from the Inspectorate in order to operate. It does not suffer from the lack of clarity of the duty model since all of the operator's obligations are set out in the consent, leaving the onus on the Inspectorate to ensure that effective integration is achieved. Such a consent would, however, have a number of drawbacks in the context of integration:
- it can never be comprehensive because no consent, no matter how long, can cover every eventuality;
- it lacks an in-built dynamic towards cleaner technology because the terms of the consent would fix the process at a point in time; the operator would have no incentive to go further until the consent was renewed;
- it would be resource intensive for the Inspectorate to implement because they would have to draw up very detailed consents.

For these reasons the Department has produced a third option which combines the elements of each approach that are most conducive to integration:

c. A residual duty incorporated within a consent. Consent for the operation of particular scheduled processes would consist of specific provisions based largely, but not exclusively, on the technology to be employed and the emission limits to be observed. Contained within the consent would be a general statement of a residual duty to operate the process and carry out all other functions not specified in the consent in accordance with best practice and in a manner that renders any emissions that do occur harmless and inoffensive to people and the environment as a whole.

This option combines the legal and administrative clarity of the consent system with the adaptability, economy and comprehensiveness of the duty based model. It would also possess a visible momentum towards cleaner technology achieved through regular review of consents and pressure for cleaner operational practices ahieved through the residual duty, which would automatically adjust to the latest developments.

The Government accordingly favours the residual duty model. It is the only option that would meet the criteria set out in paragraph 23 without placing an undue burden on either the operator or the Inspectorate. Comments are invited on the choice of this model.

PART IV

IMPLEMENTATION

44. Many of the details of implementation are largely independent of the choice of model. It is important, however, to give a brief outline of the main issues in this area to enable readers to put the proposed new system in context.

i. Enforcement

The system of enforcement would cover:-
- breach of the specific terms of a consent or its conditions;
- breach of a residual duty;
- emergency provisions;

These would build, as far as possible, upon existing practice in relation to air. HMIP would monitor compliance with the terms of a consent by visiting the plant, checking emission records and conducting their own monitoring when necessary. They would require powers to:
- issue infraction notices formally notifying operators of breaches in their consents;
- issue improvement notices stating what changes need to be made;
- rights of entry and powers to require information;
- issue prohibition notices stopping an operation to prevent discharges liable to cause imminent risk of personal injury;
- and, in the last resort, to prosecute for failure to comply with an improvement notice, a condition of a consent, or breach of a residual duty.

ii. Information needs of the Inspectorate

In order to carry out their new integrated role HMIP would require operators to supply information on a range of topics, including:

- the process and its relationship with the locality;
- all of the emissions leaving the site, and the route they take;
- operational data;
- monitoring information;
- the anticipated effects of significant emissions.

On occasions HMIP may have to obtain information independently of that supplied by the operator.

iii. Appeals

Provision would be made for appeals by an applicant to the Secretary of State against refusal to grant consent or against the conditions of a consent or the terms of an enforcement notice.

iv. Public access to information and third party rights

It is proposed that the public registers of consents for discharges to water established under section 41 of COPA should be taken as a model for public access to information under the integrated approach. This provides the public with a quick and easy means of obtaining the key information about a scheduled process and its emissions whilst providing industry with a clear indication of the information that they have to make available. Applications would be advertised and there would be third party rights to make representations to the Inspectorate about them.

v. Charging

Government policy is to make charges to cover the cost of providing services to separately identifiable sections of the public. The objective is to ensure to the greatest extent practicable that the costs of public services are borne by those using them rather than falling on general public expenditure. This is in line with the "polluter pays principle."

It is proposed that the powers in HSWA to charge firms for regulatory activities should be consolidated in the integration provisions to allow for the recovery of Inspectorate costs which directly relate to the regulation of discharges which enable operators to carry out their business. The proposed charges would thus cover HMIP's authorisation, inspection, and enforcement activities, but not their policy advice, research and promotion of good practice, which serve wider Government objectives. The details of the scope and operation of charges will be developed in a separate consultation exercise.

Incentive charges aim to induce firms to reduce their polluting discharges. They can enhance the efficiency and effectiveness of pollution control by using the market to allocate pollution reductions amongst firms.

They may, however, involve considerable practical difficulties in, for instance, setting the charge levels to induce the required pollution reductions. There can be no guarantee that charges will induce the desired reductions in emissions. The Government does not rule out their possible introduction in future and will continue to study their relevance and practicability. But there are at present no plans to introduce incentive charges in the proposed integrated control provisions.

vi. Transitional arrangements

The legislation would provide that all those operating processes which have already been scheduled on the basis of their discharge to air, or are already subject to consent for their discharge to water, should be deemed to have an integrated consent until they are reviewed by HMIP. Only applicants for a new or revised consent would go straight to integrated control.

PART VI - RESPONSES TO THE PROPOSALS

45. This consultation paper has presented the Government's proposals for the method of introduction of integrated pollution control and the reasoning that lies behind them. We would welcome comments on these proposals and on the alternatives that have been considered.

46. Comments should be sent to .....

ANNEX 1

RECENT AND FORTHCOMING CONSULTATIONS ON ENVIRONMENT PROTECTION POLICY

Air:

Air pollution control in Great Britain: Review and Proposals - December 1986

Scheduling and Charging - in preparation

Waste:

Waste disposal law amendments - September 1986

Water:

Creation of the NRA - December 1987

Trade Effluent Discharges to Sewer - Easter 1988

Control of "Red List" substances - imminent

Annex 2

INFORMATION THAT COULD BE INCLUDED IN A CONSENT

Operator's details

The name of the Company Secretary and the Registered name and address of the registered office of the Company

The name and address of the company's site where the scheduled process is located, including postcode.

The nature of the business.

Location of the operator's premises - a map

Number and type of other scheduled processes on the premises

Discharge routes used by the process and the extent to which these are shared by other scheduled and non-scheduled processes

Details of scheduled process

The type of scheduled process.

The size of the process, and its role in the overall manufacturing activity of the premises

The location of the process - a map with grid reference.

Regulatory information

Description of the process technology to be used to prevent wastes arising and to render harmless those that do occur

Discharge limits for the process to all the media specifying concentrations in waste stream or total amounts in a given time period (including the possibility of not setting a limit in one or more media), and any allowances for start-up or exceptional conditions

Monitoring regime specifying what is to be measured, how often, and by whom.

Information on the relevant EQOs and EQSs/AQSs which discharges are designed not to breach so that the operator appreciates the context of his discharges

Specific additional items (eg sulphur content of fuel, regime for washing down dusty areas at specified intervals), which can include anything from the general area the Inspector considers require specific mention for the process/operator concerned.

A standard wording (with variations depending on the type of scheduled process) covering a residual duty to operate the plant properly, mainatain records, maintain the plant in good order so

as to meet the specifc conditions and ensure the effects of the plant on the environment as a whole are minimised - the guidance on this being contained in the "IPC notes" for the process.

INTEGRATED POLLUTION CONTROL: PRELIMINARY COMPLIANCE COST ASSESSMENT

Introduction

Description of the Proposal

It is proposed to replace the present system of separate controls on a firm's harmful air and water discharges by a single rationalised system of integrated pollution control covering major industrial processes' discharges of significant harmful wastes to all environmental media.

These proposals are compatible with, but separable from, the current policy developments in the single medium pollution control systems, on which the Department is currently consulting. The proposals here seek to establish the general principles and framework for integrated pollution control. They do not include any propositions regarding the stringency of controls in any medium.

Purpose of the Regulation

Q1. What is the origin of the regulation eg EC proposal, UK statute, request from industry/trade/interest group/other?

A1.1 The need to give HMIP a legislative basis for its operations concerning discharges to air, water and solid or land wastes in line with the HMIP Action Plan. This was highlighted in the 1986 Efficiency Scrutiny Report: "if pollution inspection treats air, land and water disposal as three separate issues there is therefore a danger that the allocation of available resources to each of the three media will not reflect an overall view of where the problems are most severe; and the end result will be a haphazard disposal of pollutants to one medium or another unrelated to an overall assessment of which medium is best for each particular pollutant in any particular circumstances" ("Inspecting Industry: Pollution and Safety", para 5.2).

1.2 Calls by the Royal Commission on Environmental Pollution (RCEP) (see their fifth, tenth, eleventh and twelfth reports) for effective and efficient systems for the integrated control of the discharge of pollutants to all environmental media (air, water and land wastes). This has been endorsed by industry (e.g. Chemical Industries Association).

1.3 To ensure that the UK system of pollution control complies with the requirements of EC Framework Directives and that, in particular, it complies with the implementation of the Air Framework Directive.

Q2. What is the problem requiring regulation? How severe is it?

A2.1 At present there are separate systems for the control of discharges to air, water and land, based on different principles and implemented through different agencies. The RCEP and the Efficiency Scrutiny Report argue that this can lead to inter-media pollution transfers due to application of controls on one media leading to additional discharges to another. This can result in the misallocation of resources and environmental damages and/or additional costly control measures subsequently being required. The CBI state in "Clean Up - It's Good Business" (p11) that "interviews ... confirm that adding on environmental protection equipment after start-up is always more expensive, as is having to respond to sudden unforseen development ... in short, crisis management is costly; far better for the company - and the community - to build protection in".

2.2 In a study in 1976, the Department of the Environment and the Industrial Air Pollution Inspectorate (IAPI) estimated that over half the air pollution Inspectorate's scheduled processes might be suitable for 'cross-media' control. A similar position is likely to hold today and for other media such as water, where control on effluents in, say, the leather tanning and metal plating industries can lead to the generation of toxic sludges.

2.3 Importance of containing the costs to industry of achieving the tightening environmental standards demanded by the EEC.

Q3. What will be the benefits to the UK economy as a whole, to Government objectives, to consumers, traders or enforcement authorities?

A3.1 The proposals would provide a single streamlined system for the control of harmful discharges to all media, which would create greater clarity and transparency regarding both public and private sector responsibilities.

3.2 It would enable the most effective and efficient use to be made of HMIP's resources.

3.3 It would reduce the bureaucratic demands on firms operating scheduled processes who would in future have to deal with a single system of controls on their discharges to all media.

3.4 It would lead to more effective and efficient pollution controls by providing a clearly defined system for introducing best practice at an early stage in an industry's installation of a new process.

3.5 Efficient control of pollutants and wastes can be directly linked to efficient production and use of resources. A process which minimises its discharges is probably also making the most

efficient use of its resources. Thus the CBI tell their members in their good practice guide, 'Clean Up - It's Good Business', that "pollution control is cost control". This can be illustrated by the example of a firm operating a scheduled process which produces aromatic solvents by refining crude Benzole, a by-product of coke production. One stage of the refining process involves treatment with sulphuric acid and generates a by-product known as acid tar which contains a high proportion of sulphuric acid mixed with hydrocarbons. In the past this was disposed to landfill but the practice led to contamination of both land and water with acid and toxic hydrocarbons. A better option was found to be incineration in a purpose-built unit with partial clean-up of the discharge to air, albeit allowing some discharge of sulphur dioxide from a tall chimney. The discharge to water is neutralised, and energy is recovered by raising steam in a waste heat boiler.

3.6 This experience has been repeated in many cases. Cider production, chemical production, wheat processing, the development of spray paint for cars and the optimisation of kiln operations have all demonstrated the potential benefits from improving efficiency and reducing waste through an integrated approach. There is, however, considerable scope for further adoption of cleaner and more efficient technologies.

Q4. What is the existing regulatory provision, if any?

A4.1 Separate controls on a firm's discharges to air and water. Controls on the means of disposal of solid waste. No formal system for the integration of these controls.

Impact on Business

Q5. How does the proposed regulation compare with current practice in industry?

A5 It compares well with the practices of well managed firms and the CBI's recommendations in 'Clean up - It's good business', where they state that "Good environmental practice means watching all the elements. .....A well conceived environmental policy and putting it into effect is just part of good management". Firms not already adopting this approach would be encouraged to do so through the advice of HMIP.

Q6. Are there alternatives to regulation (e.g code of conduct or voluntary agreement)? Why have these been rejected?

A6.1 Alternatives to regulation have been considered (eg. code of conduct, voluntary agreements). Voluntary agreements, in particular, play a useful role in achieving environmental improvements. However, these alternatives failed to meet the Department's criteria for an efficient and effective system. (see paragraph 23 of the Consultation paper) since they do not satisfy the need for a clear and transparent system which is fully in

accordance with the UK's EC and international commitments. A well specified framework of regulations is needed because industry requires as much certainty and clarity as possible about the regulatory system to plan its operations efficiently.

A6.2 Nevertheless, the proposals embody considerable consensual aspects. They are based on the existing pollution control system of providing a clearly defined framework of controls which is applied flexibly through extensive consultation and agreement with firms on a case by case basis. Industry is familiar with and supportive of HMIP's past practice in this area.

Q7. What timetable is proposed for the introduction of the new regulations? Must all the measures be introduced at once or can these be introduced over a period?

A7. A consultation paper will be issued in the summer with a view to preparing legislation as soon as a legislative slot can be obtained. When enacted, the system would be applied to all new scheduled processes. For existing processes, the new integrated controls would be introduced gradually taking into account the economic and technical feasibility of any changes that might be required. It will also be necessary to prepare guidance and possibly, regulations covering the practical application of IPC, which would be drawn up in consultation with other Government Departments and industry.

Q8. Can the period of operation of the new regulation be limited?

A8 No. Industry needs a well specified system of regulations to enable it to plan well into the future.

Q9. What consultations have there been with business? To what extent do the regulations take account of these consultations?

A9. Informal consultations during the development of the proposals. Formal consultations planned with industries coming within the scope of the proposal through their representative bodies and HMIP in their advisory role.

Q10. What will industry have to do to comply with the regulations?

A10. Firms with scheduled processes would have to apply the same procedures that they employ for discharges to air to all their discharges in one application made at a single time to one body. That is, they will have to apply for prior consent for a scheduled process, provide HMIP with information about their waste streams and implement any resulting required control measures.

Q11. Are certain sectors of industry or companies of certain size likely to be particularly affected by the regulation?

A11. The group affected would be the main dischargers of air and water pollutants and wastes. This will amount to about 2,600 industrial sites. Most of these are already separately subject to present air and water pollution control regimes and many are also significant generators of special wastes. The only exception would be some generators of special (land) wastes (very few in the initial stages, increasing gradually to no more than 500) who would become subject to controls to reduce waste generation at source.

A11.2 An approximate breakdown would be as follows:-

A)-2000 dischargers of air pollutants which are subject to control by HMIP in respect of air emissions.

B)-About 500 dischargers of red list substances to water, currently regulated by Regional Water Authorities, would be brought under HMIP Control. Of these, about 100 plants would already be subject to current air pollution control by HMIP (category A above). Of the remaining plants in this category, more than half would be in the (cadmium) metal plating, with the rest in agrochemicals formulation, paints and pigments, and timber treatment sectors.

C)-The additional generators of special wastes (as defined in Control of Pollution (special wastes) Regulations 1980) referred to above which will eventually total no more than 500. These plants would mainly be in the (non-cadmium) metal plating, mechanical engineering and metals fabrication sectors. Only the most significant waste generators would become subject to integrated pollution controls.

Q12. What will be the cost to industry to comply with the regulation?

A12.1 The introduction of new controls on solid waste generators (group C above) and the requirement to provide additional information on waste streams is likely to place some small additional costs on these firms. These would, however, be contained since the IPC controls would build on the present record keeping system required to comply with the special wastes regulations.

12.2 For Groups A and B, the proposed system should not involve additional data collection in the majority of cases. It would entail bringing together existing information on discharges to all media which may yield some small administrative savings for many firms.

12.3 Any increased costs would be experienced by only a few of the 2,600 most serious polluters, which would be mainly, but not exclusively, large industrial processes. Such costs are

therefore unlikely to be significant in the context of the industry as a whole, with the possible exception of a few small firms with inefficient waste management practices. Such firms would receive guidance and technical advice from HMIP on how to improve the efficiency of their operation. This would include arrangements to spread any additional costs through the phasing in of new technology.

12.4 The additional costs, however, should be largely offset by efficiency savings in the form of reduced bureaucratic burdens for firms and more effective and efficient pollution control techniques (see A3.3 - 3.4 above). The overall costs to industry operating scheduled processes are not therefore expected to be any greater under the proposed system than under the existing sectoral controls, and in many cases they could be less in the longer term.

12.5 It has been collectively agreed at Ministerial level in the context of the proposal to amend waste disposal legislation that disposal standards are too low. This will result in a small increase in the cost of solid waste management which will be borne by firms unless they can implement improved waste reduction measures. The integration proposals are designed to facilitate the implementation of such measures during a firm's installation of a new process.

12.6 The Health and Safety at Work Act grants powers to charge firms for regulatory activities which are not currently exercised by HMIP. They would be be consolidated into the new proposals. The total costs of charges to all industry will be between £1.5m-2m p.a, which would be of the order of £500-£700 p.a. for each plant.

12.7 Views would be welcome from industry on the financial implications of these proposals.

Q13. Is there any scope for making specific provisions for small firms/exempting them from the regulation's requirements?

A 13.1 Careful consideration will be given to the position of small firms. The system would incorporate de minimis provisions to ensure that it only applied to major dischargers of the most harmful substances. The vast majority of small firms are not significant dischargers and would therefore not fall within the system. Where small firms do discharge significant pollutants HMIP will give consideration to the need not to entail excessive costs.

Wider Impact of the Regulation

Q14. How will the regulation be enforced? By central or local authorities?

A14. By HMIP as a central agency. The regulations currently enforced by other Pollution Control Authorities should not be changed.

Q15. What will be the cost to Government of introducing the new regulation?

A15.1 Demands on the Inspectorate are increasing irrespective of IPC as a result of policy decisions taken since their formation regarding the adoption of new controls on processes discharging 'red list' substances to water, the introduction of cost recovery charging and the requirement to work closely with the NRA.

15.2 The chief effect of the proposed changes would be the need for some additional administrative support. The increase in resources for HMIP solely attributable to integration would be small - in the order of three additional Inspectors and two support staff out of a total current complement of 202. There would also be a transitional increase of the burden on the Inspectorate whilst the scheme is launched and IPC notes are produced, but it may be possible to offset this to some extent by a temporary re-allocation of resources and by buying-in advice.

A15.2 The implementation of the proposals would result in a reduction in public expenditure of about £1.5m-2m p.a., which is the level of the cost recovery charges for HMIP's authorisation activities (see A12.6 above).

Q16. What will be the costs to local authorities of the new regulation?

A16. Nil.

Q17. What can be taken to measure the effectiveness of the new regulation in meeting its objective?

A17.1 Line management systems and MINIS would be used to monitor HMIP's operational efficiency. Summary performance indicators would be published in HMIP's annual report (e.g. number of authorisations issued, number of inspections etc)

A17.2 A strategy for policy evaluation is being prepared which would provide periodic checks that the policy is meeting its objectives. This will be carried out through: reporting by inspectors; supplemented by detailed studies of specific plants to indicate the environmental effectiveness of and economic efficiency of the policy. The detailed studies would include assessments of the economic and environmental impacts of integration.

SECRETARY OF STATE FOR THE ENVIRONMENT

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LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

NBPM/CJB

The Rt Hon John Major MP
Chief Secretary
HM Treasury
Parliament Street
LONDON
SW1

13 July 1989

Dear Chief Secretary

I have seen a copy of David Young's letter to you of 22 June.

In the context of the current PES round I have already considered what provision DOE should seek for research in support of policy on climate change, in the light of the Chief Scientific Adviser's paper to us for our meeting of 19 April. You will know that I am proposing to fund the climate change modelling at the Meteorological Office, and I have not sought PES transfers from colleagues although clearly the output from that work will be an important tool for the evaluation of many policies other than my own. I do not see my responsibilities extending to the provision of satellite development or instrumentation.

I am sorry that this does not help David with his funding problem but I thought it as well that you should know where I stand. In the circumstances I can only suggest that David seriously considers funding ERS-2 on exactly the same basis as he funded ERS-1. The case as I understand it for ERS-2 is largely that the liftime of ERS-1 may be inadequate for some of the purposes for which it was intended.

Copies of this letter go to recipients of yours.

CEJ Bush

pp NICHOLAS RIDLEY
(approved by the Secretary of State and signed in his absence)

ENV AKKAIRS: AC JR
R 11

13 JUL 1989

cst.ps/5jm12.7/drfts

CONFIDENTIAL

CHIEF SECRETARY TO THE TREASURY

Treasury Chambers, Parliament Street, SW1P 3AG

The Rt Hon Lord Young of Graffham
Secretary of State for Trade and Industry
Department of Trade and Industry
1 - 19 Victoria Street
London
SW1H 0ET

12th July 1989

Dear David,

GLOBAL CLIMATE: ERS-2

Thank you for your letter of 22 June.

The Prime Minister's meeting on 19 April agreed that UK participation in ERS-2 will depend on agreement between the departments about how the cost is to be met. You have agreed to meet 50 per cent of the cost and Kenneth Baker has agreed to provide £2m towards the cost of instruments. These feature in your Survey proposals and I will be discussing with both of you in September how this can be met from within your respective programmes. But other interested colleagues have so far given no indication that they are prepared to meet the balance of the cost, or of the priority they attach to this project against other items of expenditure within their programmes. Unless we have settled your programme, and unless colleagues have confirmed that they will provide the necessary money from their programmes - perhaps in the proportions suggested earlier by John Fairclough - I fear that we will be unable to make a commitment to participation in the autumn.

You also raise the question of how any UK contribution to ESA in respect of ERS-2 should be paid. Subject to satisfactory agreement with colleagues about how the cost is to be shared between departments, I see no difficulty in your proposal to carry the contribution on the DTI Vote. The relevant amounts would be deducted from the programmes of the departments concerned and added to yours at the end of the Survey, so the provision would appear in the DTI figures in the Autumn Statement. There would of course have to be a clear understanding that any savings which may arise on this would not be available to offset increased expenditure on other parts of your programme.

I am copying this letter to the Prime Minister, to other members of E(ST) and to Sir Robin Butler and John Fairclough.

Yours Ever,
JOHN MAJOR

ENV AFFAIRS : Acid Rain
RM

13 JUL 1989

166/7 10/7 Carlisle

GG Alan Wallace

OVERSEAS DEVELOPMENT ADMINISTRATION
ELAND HOUSE
STAG PLACE LONDON SW1E 5DH
Telephone ~~01-215-3499~~ 01-273 0409

to see for any news.

From the Minister

12 July 1989

Dominic Morris
Private Secretary
10 Downing Street
LONDON SW1

Dear Dominic,

UK POSITION ON AN INTERNATIONAL CLIMATE FUND

I explained on the telephone that the Foreign Secretary was expected to send to the Prime Minister, within the next day or two, a paper setting out a defensible and robust position on proposals for climate funds to help developing countries.

We agreed that it would be helpful for Charles Powell to have a copy of the ... paper to take with him to Paris. It has been agreed by Ministers in the Treasury, the Department of the Environment and the Department of Trade and Industry.

Rather than outright opposition to a new fund, the paper proposes that existing institutions which provide aid to developing countries should increase their activities in fields related to climate change. Other governments with whom this has been discussed (including the Americans and the Japanese) share this view.

The environmental briefing for the Summit has been prepared on this basis.

Yours sincerely,

Myles A. Wickstead

(M A Wickstead)
Private Secretary

UK POSITION ON AN INTERNATIONAL CLIMATE FUND

Problem

Following his attendance at the Helsinki Meeting to review the Montreal Protocol on CFCs and in the light of the PM's seminar on climate change, the Secretary of State for the Environment wrote to the Prime Minister making certain proposals. In reply the Prime Minister agreed that we should develop "a robust and defensible position for ourselves, and as far as possible an agreed position with other donor countries, on proposals which are increasingly coming forward from elsewhere for climate funds to help developing countries".

2. The proposition of a CFC fund is already under review following the Helsinki meeting in May. The Intergovernmental Panel on Climate Change (IPCC) is tasked with looking at response strategies, and has called for papers to be submitted by 15 August on the financial implications. President Mitterand is likely to raise the issue of a climate/environment fund during the Paris Economic Summit.

Proposed UK line

3. The UK should say publicly that we

- accept in principle that developing countries do not have sufficient resources to solve their own local and regional environmental problems let alone to contribute to solving global environmental problems at the speed or on the scale likely to be necessary;

- accept in principle that developing countries may have different priorities (reflecting their own economic and environmental circumstances and objectives) from those of developed countries which can afford to take action now to deal with concerns about global environmental matters;

- reject the notion that developed countries should make financial amends to developing countries for past global environmental pollution, but accept that developed countries will need to be prepared to channel additional resources (private and public) to developing countries. External resources are needed in order to reinforce the latter's ability to address environmental issues and to ensure that the priorities for action include things of global as well as local importance;

- reject the notion that additional institutions are needed and instead press for help normally to be channelled through existing multilateral and bilateral funding arrangements. Any action needed to adapt existing machinery should be taken within the framework of the agreed protocols to be negotiated under the Climate Convention proposed by the UK in May;

- will determine the scale of the UK's own contribution to a global effort in the light of;-

  our domestic public expenditure priorities,
  the response of other developed countries,
  the evolution the further scientific and economic work which is in train
  and our bilateral relations with key developing countries.

(Ministers should bear in mind that, if the UK is to play a lead role in the formation of policy and decisions on action, it will need not only to be skilful in its presentation, but will also have to be prepared to make a fairly substantial contribution on top of anything that the private sector will be willing to contribute through its own investment strategies. The Secretary of State for Foreign and Commonwealth Affairs has accordingly included an element for this in his PES bid.)

Rationale

4. The issues arising from concern about global climate change present a new challenge to the world community. The challenge is made much more complicated by the high degree of uncertainty which surrounds predictions about the effects, especially at the regional level. However, it is apparent that action only by countries already convinced of the need, will not be sufficient to slow down the build-up in greenhouse gases and the destruction of trees and other organisms which absorb and lock up carbon for long periods. The predictions of the existing global climate models show that responses are needed even before the models have been perfected if unacceptable levels of warming are to be avoided. Thus worldwide cooperation is required to confront a truly global environmental issue - one where the costs and benefits of action do not respect national or regional frontiers.

Argument

Summary

5. This paper looks at the developing countries' capacity to join in that cooperative action and at their likely willingness to do so in view of their other priorities for their limited resources. It concludes that additional external resources will be required to ensure that developing countries take action within the time frame required. Those resources will need to be spread over a wide range of environmental problems. Calls for "compensation" (the notion that developed countries should make financial amends to developing countries for past environmental pollution which has reduced future development options) should be rejected. The paper makes the case that resources should be applied not only to climate change but to the related global environmental issues; depletion of the ozone layer and loss of genetic resources. It looks at possible sources for external finance and concludes both the public and private sectors have roles to play. It goes on to examine the existing aid channels for tackling environmental problems. It looks at the possibilities for strengthening and adapting these to make a more effective contribution to resolving the full range of problems. It

reaches the view that existing institutions should be able to cope. It thus rejects the case for a new general global environmental (or climate change) fund administered by a new institution.

Constraints on developing countries

6. Developing countries are characterised by heavy reliance on natural resources, poverty and burgeoning population pressure. The resource base is often fragile. Poverty and population pressure are themselves causes of local environmental degradation which in turn exacerbates both. Where population pressures are increasing faster than peoples' ability to adopt new resource use patterns, marginal lands are often made unproductive. Poverty limits peoples' capacity to invest in change or to take the risks inherent in doing so. Developing countries' ability to grow out of this vicious spiral is often restricted by foreign exchange shortages and heavy debt burdens. They even find it difficult to finance investments with obvious short-term national benefits. To the extent that immediate national priorities, for example reafforestation and rational energy policies, have spin-offs for climate change, developing countries can be expected to play their part in global action. However, the global good will not be a primary motivation for their decisions.

Differences in perception and developing countries willingness to tackle global climate change

7. Developed countries view the possible dangers posed by global climate change with the greatest concern. They have the resources required to take the action on their own behalf which is justified by the current state of scientific knowledge. They are conscious that policy decisions need to be taken early if the full impact of possible adverse climate change is to be avoided. They recognise the need to reduce the scientific uncertainties as rapidly as possible and have put considerable effort into the Intergovernmental Panel on Climate Change (IPCC) where Britain is playing a leading role. Other industrial countries are likely to welcome the work on environmental economics we will be advocating at the Paris Summit as another important step in tackling uncertainty.

8. Conversely, developing countries view unwelcome changes in the global climate as the result of action by the industrialised countries who have become rich in the process. Developing countries tend to believe that industrialised countries should pay for solving the problem. They are particularly suspicious of any solutions which appear to block their own pathway to development through traditional industrialisation and economic growth. Most developing countries do not consider global climate change as a current priority and regard uncertainty as a reason for delaying action. They have not shown much enthusiasm for the IPCC. They are much more preoccupied with the present economic difficulties facing them and with more immediate threats to their environment. These latter include urban and industrial pollution (particularly in Asia and Latin America), toxic waste (a political problem in Africa), deforestation and soil erosion. Even where developing countries concede that the potential cost of global climate change to their populations will be enormous, they are unwilling or unable to invest heavily in precautionary action. This may be perfectly rational if they believe they can generate sufficiently rapid growth today more easily to afford action tomorrow.

9. The division between industrialised and developing countries is not clear cut. To the extent that they are known the views of individual countries are in Annex A.

Encouraging cooperation

10. Given the different view-points and stages of development it is apparent that precautionary action to minimise risks will be acceptable to industrialised states but not to developing countries. To achieve the worldwide action required in the face of scientific uncertainty, industrial countries must expect to contribute to the costs involved for developing countries. Such external help will need to be additional to existing aid flows which are used to finance investments which countries regard as a higher priority for creating wealth or reducing poverty. In any case, the solutions to their central development priorities-such as poverty, excessive population growth and lack of economic growth-can contribute to the reduction of global warming.

11. Respect for the priorities of developing countries does not mean that the industrial world must concern itself with the whole of the developing countries' agenda. A skilful combination of help with local environmental concerns and resources for global environmental programmes, could provide the basis for constructive partnership between developed and developing countries. Such a partnership should minimise the risk of prompting the developing countries to press for some kind of compensation for the consequences of past pollution caused by the developed countries. In essence the advocates of compensation are seeking agreement to a retrospective version of the 'polluter pays' principle. Acceptance of their case would have wide ranging and unwelcome implications.

Scope of Cooperative Action: Climate or Global Environment Focus?

12. The arguments for help with respect to one global environment issue, climate change, apply equally to others where environmental costs and benefits do not respect national or regional frontiers. There are two other current issues of this kind. One is depletion of the ozone layer by CFCs, which has effects not only on climate but which could be successfully tackled as part of a programme to prevent climate change. The other is loss of genetic diversity through the destruction of genetically rich areas such as tropical forests, wetlands and coral reefs. Conserving all three would help to lock up carbon, and, in the case of mangroves, would help protect low lying areas from more frequent storms expected through global warming, so again a climate connection can be adduced. Nevertheless, both ozone depletion and genetic diversity are important global environmental issues in their own right. Those wanting a new environmental funding mechanism will pray them in aid. By recognising their importance from the outset, the UK can enhance its 'green' credentials and ensure that the debate about funding mechanisms is not side-tracked by arguments about the scope of the issues to be covered.

Sources of External Finance

13. Four possible sources are available; private sector investment, international taxes and levies, the proceeds of "debt-for-nature" swaps and aid programmes.

14. The private sector is unlikely to opt voluntarily, to use more expensive technology for investments in developing countries, especially if the environmental reasons for so doing remain unproven. Similarly, developing countries will be reluctant to bring in and enforce the legislation required to compel private sector action unless it can be made financially attractive for them. Nevertheless, there is scope for persuading industry that offering environmentally friendly technology to developing countries will allow companies to gain an advantage in markets of future significance.

15. Internationally agreed earmarked taxes or levies are a possible funding source which is already under discussion for tropical timber. More generally, however, the UK has traditionally been against hypothecating revenue and international agreement would in any event be extremely difficult.

16. The Prime Minister's meeting on 19 April considered the possible role of debt-for-nature swaps and concluded that voluntary swaps might have a role to play, but that it would be wrong for the taxpayers of developed countries to bear the costs of writing off commercial debt.

17. The remaining source of additional external resources is international aid. This has the advantage of being able to tackle village level projects which are unlikely to be of interest to international investors.

Development aid channels

18. Any additional public resources to be mobilised by the developed countries must be effectively delivered. There are essentially three options;

greater use of existing mechanisms,
a new fund covering all environmental issues,
or a new fund limited to problems not covered by existing institutions.

The choice between them depends on their likely success in persuading developing countries to join international action, their acceptability to donors, the range of issues to be tackled and the coverage and effectiveness

Main culprit USSR - very important energy user

19. Annex B lists the key underlying issues in developing countries, global environment problems and the local environmental concerns of the third world. It describes current efforts being made to deal with them. It also identifies work not at present being handled by existing institutions. The most notable deficiencies identified are:

- consideration of the global environmental implications of energy choices.

- consideration of the national and global environmental implications of transport and industrial sector policies;

- developing country scientists are insufficiently involved in research on climate change which makes it unlikely that their Governments will take the conclusions seriously;

- efforts to conserve genetic resources are very modest and are split amongst a number of agencies;

- no research is underway on the methane implications of different agricultural systems;

- environmental monitoring is in its infancy in developing countries;

- no work has yet begun on helping countries investigate strategies for avoiding CFCs although financial resources have been offered for this.

However, we judge existing bilateral or multilateral institutions as capable of being strengthened or adapted to handle these deficiencies.

20. Use of multilateral channels for some of the additional funds will require agreement by other donors and by recipients, but is essential for significant coordinated action. In any case, only multilateral channels can provide sufficient political visibility to ensure developing countries accept that additional resources are being made available. Agreement to alter existing mandates or create new ones could most easily be reached

under the umbrella of a Climate Change Convention. Where the remits of weaker multilateral institutions require adaptation or extension, careful work will be needed to ensure that they could realistically be expected to handle the tasks satisfactorily.

21. Use of existing channels will avoid the delays and additional overheads inherent in the establishment of new institutions. It is also likely to make best use of the scarce analytic expertise available for environmental problems. Nevertheless, increasing their tasks does imply re-examination of the general donor approach of severely restricting the increase in the administrative budgets of multilaterals.

22. Those who favour a new environmental funding mechanism do so because of a political assessment that it is the best way to convince countries that resources are truly additional. A new Fund would presumably aim to supplement the relevant activities of existing organisations and fund new types of programme. However, its supposed additionally could be largely illusory if existing aid institutions responded by running down their own spending on programmes which could be picked up by the new body. Forestry and energy efficiency are obvious examples. The net result might even be an overall switch of emphasis away from environmental concerns. Thus a wide-ranging Fund might not meet the political requirement.

23. A new Fund has the grave disadvantage that it could be seen as acceptance of the 'compensation' argument. If it were handled by a new institution, that would add to the complexities of the international aid machinery and to the difficulties of coordination. Moreover, depending on voting arrangements, a new institution might well reduce donor's influence over the handling of multilateral aid.

24. If, after consideration, there were found to be some highly specialised activity or concern not capable of being handled satisfactorily by present institutions, then some limited new funding mechanism might be required. This could be negotiated in the framework of individual protocols to a Climate Change Convention.

Scale of UK Contribution

25. The UK must be prepared to contribute additional resources itself if proponents of an environment/climate change fund are not to win the day. The size of that contribution will depend on domestic public expenditure priorities, the response of other developed countries, the evolution of the further scientific and economic work which is in train and our bilateral relations with key developing countries. There are initial signs that some countries, certainly including the Japanese, Dutch and Norwegians, are prepared to produce additional resources for these purposes.

26. ODA's existing multilateral and bilateral programmes already include a good deal of expenditure which serves these environmental objectives, along with others. Because it is multi-purpose, it is not possible to quantify precisely the amounts dealing with issues related to climate change. More will be needed to help implement our forestry initiative and do more in energy efficiency and CFC substitution. The Foreign Secretary has included a bid for £15 million, £40 million and £90 million in the three Survey years among his other Public Expenditure bids. Such expenditure would be justified in its own right, but would also help to fend off pressure for a less cost-effective UK contribution to a Climate Change Fund as part of our overall effort.

ANNEX A (MAED)

CLIMATE CHANGE: VIEWS ON THE NEED FOR FINANCIAL ASSISTANCE

1. At the London Ozone Layer Conference in April, China proposed a global fund to supply technology and assistance to developing countries to enable them to phase out the use of CFCs. India supported this proposal. The need for financial assistance to developing countries was further discussed at the first meeting of Parties to the Vienna Convention for the Protection of the Ozone Layer (and its Montreal Protocol) in Helsinki in early May. A Working Group was established at that meeting "to develop modalities for [international, financial and other] mechanisms, including adequate international funding mechanisms which do not exclude the possibility of an international fund." The Working Group will report to the second meeting of the Parties, in London in 1990. Norway's offer at the Helsinki meeting to contribute to a world climate fund (see below) probably provided the stimulus for calls in subsequent international meetings for a climate fund rather than a fund linked directly to CFCs and the Ozone Layer.

2. The following have made public offers to contribute to a world climate fund:

Norway

At the Helsinki meeting of Montreal Protocol Parties in May, Norway offered to contribute 0.1% of GNP (approx $100m) a year to an international climate fund under the auspices of the UN, provided matching contributions are made by other industrialised countries. This position was repeated at an OECD DAC meeting on the environment in June in a statement which stressed the need for others to match the offer.

Netherlands

At the UNEP Governing Council in May, the Netherlands announced she was ready to contribute up to 250m Guilders £72 million to a world climate fund, when such a fund is established. We understand the aid Minister would prefer to spend these resources which are already in the aid budget through existing mechanisms. The resources were provided for projects to help developing countries avoid contributing to the greenhouse effect.

3. At the UNEP Governing Council in May, the following countries commented on proposals for a world climate fund:

Mexico

Bilateral transfers were not enough. Financial resources should be channelled through the UN.

FRG

A working group should be established to consider the matter, as in the case of financial assistance under the Montreal Protocol on Substances that Deplete the Ozone Layer.

Brazil

Technology should be transferred at cost.

France

Low key call for financial resources to compensate affected countries.

India

Not concerned about the mechanism for the transfer of financial resources; the main problem was to ensure the transfer took place.

Paris Economic Summit

4. We understand Japan will announce a contribution of up to $150 million over three years for forestry projects to be channelled through the International Tropical Timber Organisation.

5. Papers prepared for the Paris Summit include:-

A. Canadian paper

"Environment and the Economic Summit: a Canadian Perspective" does not mention the proposal for a climate change fund but suggests the Summit could

> "call upon international financial institutions to develop new and innovative ways to help developing countries and strengthen their capacity to achieve environmentally sound development".

In private discussions Canadian aid officials have explained they would prefer to work through existing institutions but that the Foreign Ministry is making provision to contribute to a fund for political reasons.

B. French Thematic Paper III

Refering to the emission of greenhouse gases, the Thematic Paper notes reduction in CO emissions

> "would obviously call for far-reaching global measures in the energy and other industrial measures... Economic inducements should be developed to facilitate these evolutions."

In a reference to The Hague Declaration the Thematic Paper notes the Declaration signatories

> "emphasised the need to provide some assistance to those countries on which decisions taken to protect the atmosphere would prove to impose a special burden, in view of the level of their development and actual part in the deterioration of atmosphere."

C. German Paper

A German paper on "Protection of the Earthly Atmosphere" makes no mention of a climate change fund. The paper is primarily concerned with tropical forests. It advocates a "new institution" along the lines of The Hague Declaration and notes

> "In view of the global threats to the earth's atmosphere and their causes, the summit countries bear special responsibility vis-a-vis the international community. Acting in solidarity with developing countries and in collaboration with international institutions, they must take the decisions and measures needed to protect the earth's climate and atmosphere."

In recent private discussions aid officials have confirmed they would prefer to work through existing mechanisms rather than a climate fund. The call for a new institution seems to be aimed at giving political impetus to the Tropical Forestry Action Plan which is at present an informal process.

6. OECD

The Communique issued at the conclusion of the Ministerial Council held on 31 May and 1 June states

> "Ministers agree that cooperation with developing countries is essential for the solution of global environmental problems. The OECD will evaluate relevant policy experience in Member countries. On the basis

of the information, the Organisation will seek to co-ordinate policies among member countries with a view to ..... the design of innovative approaches by development assistance institutions to environmental protection and natural resources management; and the integration of environmental considerations into development programmes taking into account the legitimate interests and needs of developing countries in sustaining the growth of their economies and the financial and technological requirements to meet environmental challenges."

7. Other soundings

Representatives of both the Swedish and American aid agencies have indicated they do not favour a separate climate fund. The Americans were noticibly non-committal when the subject arose at the UNEP Governing Council.

ANNEX B

ENVIRONMENTAL PROBLEMS, ACTIVITY BY EXISTING INSTITUTIONS AND FUNDING GAPS

SUMMARY

ENVIRONMENTAL PROBLEMS AND EXISTING AND POTENTIAL FUNDING MECHANISMS

UNDERLYING CAUSES

POPULATION: UNICEF, UNFPA, IPPF and many multilateral and bilateral aid agencies.

POVERTY: All aid programmes.

DEBT AND FOREIGN EXCHANGE CONSTRAINTS: IMF, World Bank, London and Paris Clubs.

GLOBAL ISSUES

CLIMATE CHANGE:

Carbon dioxide	Most existing aid agencies. Coordination by World Bank
Nitrous oxide	Most existing aid agencies.
CFCs	World Bank, ODA and other bilaterals.
Methane	Agricultural research institutions, and aid donors.
Monitoring	UNEP, WMO, World Bank.
LDC participation in research	IPCC, UNEP.

DEPLETION OF THE OZONE LAYER: World Bank, ODA and other agencies.

LOSS OF GENETIC DIVERSITY: FAO, World Bank, IUCN, UNESCO and other UN agencies CITES, IBPGR.

DEFORESTATION: TFAP, ITTO, existing donors.

LOCAL ISSUES

DEGRADATION: Existing aid agencies.

POLLUTION: Existing aid agencies, Basle Convention, FAO, UNEP.

INSTITUTIONAL CAPACITY: Existing aid agencies.

UNDERLYING PROBLEMS

POPULATION: The global population is currently 5 billion and is expected to stabilise somewhere between 8 and 14 billion depending on success in persuading the people of developing countries to adopt family planning. Success will depend on acceptance of individuals that they do not need large numbers of children to provide security in old age and is therefore closely tied to progress in poverty alleviation and sustainable economic growth. Thus all aid programmes may be said to contribute to slowing population growth. International programmes specifically targetted on the objective include those of the UNICEF, the UN Fund for Population Activities and the International Planned Parenthood Federation and most bilateral donors also contribute. There are no gaps to fill but programmes could be increased in scale.

POVERTY: The poor lack access to sufficient resources. They cannot invest the time and capital required for long-term sustainability and frequently live off environmental capital, which results in increasing degradation of sensitive areas. All aid programmes have poverty alleviation objectives so again the question is one of scale rather than gap filling.

DEBT AND FOREIGN EXCHANGE CONSTRAINTS: affect some countries' abilities to use their own resources for environmental protection though there is no guaranteed link between the relief of debt or foreign exchange shortages and positive environmental action. In some cases, notably in Africa countries have mined their forests on a short-term basis to earn the foreign exchange needed for debt servicing and the initial stages of structural adjustment. Carefully targetted structural adjustment programmes, international debt initiatives and negotiations in the London and Paris Clubs provide adequate mechanisms for dealing with the debt burden, although Latin American countries would argue that inadequate resources have been made available.

GLOBAL PROBLEMS

CLIMATE CHANGE: The cause of global warming is greenhouse gas emissions whose effects are made worse by the loss of carbon sinks particularly through deforestation, loss of forests and changing land use patterns are of special significance in developing countries and are dealt with below.

Greenhouse gases come from a number of sources. In developing countries the following gases are important:

Carbon dioxide. Net emissions and their sources are unknown but apart from burning of fuelwood (the primary heat source in the third world) and destruction of forests as land is cleared emissions must come from the same sources as in the developed world - thermal power generation, industry and transport. All 3 sectors receive large amounts of bilateral and multilateral aid but so far little thought has been given to greenhouse gas emissions in the environmental appraisal of projects although donors and recipient governments are increasingly concerned about energy efficiency.

The Energy Sector Management Assessment Programme (ESMAP) of the World Bank provides a framework for the assessment of **energy policies** at the national level and for encouraging efficient generation transmission and distribution of electricity. ESMAP does not at present include global environmental aspects in its analysis. ESMAP assessments can influence all donor agencies via ESMAP coordination meetings and individual recipients via World Bank participation in aid consultative groups. To the extent that efficient systems save resources, increased emphasis on carbon efficiency should be welcome to developing countries. However energy sector projects are a cause of much commercial competition amongst donors so strengthening the ESMAP process should be accompanied by donor agreement, probably in the Development Assessment Committee of the OECD, to environmental standards for energy projects. While the mechanisms exist, the scale of investment needed to make developing countries power sectors as efficient as those of industrialised countries or to encourage switching to fuels producing less carbon dioxide would be enormous.

In the UK 20% of carbon dioxide emissions are the result of **industrial** uses of fossil fuels and a further 20% comes from the **transport** sector. We are not aware of any analysis having been done for developing countries but both sectors are of increasing importance especially in Asia and Latin America. Nor are we aware of any international policy analysis of the sectors similar to the World Bank's ESMAP, although again donors provide significant sums for both transport and industrial development. While mechanisms do not currently exist there seems little reason why the World Bank, which is not only the biggest lender but also the centre of donor environmental expertise, should not be encouraged to look at the global environmental

impacts of current developing country transport and industrial policies. The UN Industrial Development Organisation (UNIDO) might also have a role to play. Again commercial pressures would require donors to reach agreement on guidelines for aid. Investments in greater combustion efficiency in industry and transport might be expected to pay for themselves but the initial costs could well be unacceptable to capital starved developing countries who might require additional aid to adopt green technology.

Nitrous oxide: To the extent this is a product of thermal energy generation, industry and transport, reductions in output growth could be achieved in the same way as for carbon dioxide as well as by specific mitigation measures such as the gas scrubbers and catalytic converters. Halting deforestation would also help to reduce nitrous oxide emissions. Thus multilateral and bilateral agencies are tackling the problem.

CFCs: Present use of CFCs by developing countries is not well understood but it seems likely that the major use is in refrigeration rather than in aerosols, packaging or as solvents. Donors including the World Bank and the ODA, have already offered aid for drawing up CFC substitute strategies for developing countries and for their implementation. The Helsinki Meeting of the parties to the Montreal Protocol agreed to look at all possible funding mechanisms to help developing countries meet present and future Protocol requirements. Industry will need to be involved in efforts to help developing countries but it is not obvious that additional mechanisms are needed. However, if substitutes for refrigerants (which will not be commercially available until the late 1990s) prove more expensive than domestic production of CFCs, developing countries may need additional aid to make the switch.

Methane: The rice paddies of tropical countries are a major source of global methane production as are increasing populations of livestock. Given the difficulties faced in increasing agricultural yields in line with population growth in many countries, there seems little point in trying to tackle tropical agriculture early in global efforts to reduce greenhouse gas emissions. Nevertheless there is scope for research to compare methane emissions from agricultural intensification and extensification. UK and existing international research institutions have the potential to undertake this work which could be financed by the donor community who are heavily involved in agricultural development. To the extent that livestock projects

are often aimed at increasing quality rather than quantity they may help to curb emission growth. Programmes aimed at using methane produced from biomass (particularly solid waste and night soil) for domestic energy generation also have a role to play and could be stepped up using existing mechanisms.

Climate Change Monitoring: Global environmental monitoring already takes place through the Global Environmental Monitoring System programme of the UN Environment Programme (UNEP) though coverage in developing countries is poor. Current international research based on remote sensing of the atmosphere and new research studying the oceans will provide information on climate of value to all countries. Nevertheless climate modellers may need more data from the overstretched meteorological services of developing countries. Discussions aimed at strengthening the African system are already taking place. They involve the World Meteorological Organisation (WHO) and are being coordinated by the World Bank. Existing mechanisms could be used to channel the resources required.

Developing Countries Participation in Research: The Intergovernmental Panel on Climate Change is concerned at the inadequate participation of developing countries in the Panel's work to date. A meeting will be held in Nairobi in late June to identify and overcome the barriers to such participation and funds should be available from the recently expanded UNEP budget. If these prove inadequate bilateral aid programmes could be used.

DEPLETION OF THE OZONE LAYER: Measures needed to encourage developing countries to avoid the use of CFCs have been considered above.

LOSS OF GENETIC DIVERSITY: The major cause is the loss of tropical forests which are home to at least half the world's species. It has been estimated that fully protecting 0.2% of the earth's land surface in 10 'hot spot' regions of primary forest would save from extinction 7% of the earth's plants and at least a similar proportion of the animals. Other areas of high diversity include wetlands (notably mangroves) and coral reefs. Combatting deforestation in general is considered below. For climate change and local environmental degradation through soil erosion and loss of soil fertility there is no reason to pay particular attention to areas of high diversity. In fact such areas are likely to be of more value to northern pharmaceutical companies, who do not at present pay royalties on the plants

extracted, than to the developing countries in which they are situated. Current discussions in the FAO aimed at recognising the rights of people to benefit from their contribution to the exploitation of genetic diversity might alter the equation. So might assessments of tourist potential but access often needs to be limited to avoid unacceptable species loss.

At present the international systems charged with identifying or encouraging protection of key areas in developing countries are the Ramsar Convention which covers wetlands of importance to birds, UNESCO's World Heritage Convention which covers unique natural and cultural areas and UNESCOs Man and the Biosphere (MAB) Programme which is establishing a global network of ecologically important areas which are intended to demonstrate mans interdependence with his surroundings. All three have modest funding mechanisms and the MAB programme is sufficiently well regarded that ODA continues to contribute to it through NERC.

The International Union for the Conservation of Nature and Natural Resources (IUCN), a union of conservation expertise, participates in all three programmes and could step up efforts to involve developing countries as fully as possible. IUCN could also be used to identify key forest areas and indeed will be making a special assessment of currently protected areas as part of the FAOs world wide tropical forest assessment in 1990. IUCN has produced a draft for a global convention on all aspects of genetic diversity which could provide a framework for reaching international agreement on protecting particular areas while respecting national sovereignty. In view of the sensitivities it might be better to channel any aid needed for the establishment of protected areas through an international body. The IUCN has a small project implementation branch which could be strengthened but in view of the voting structures in IUCN (which give a substantial voice to very unrepresentative NGOs) donors might prefer to channel funds through the World Bank or a UN agency.

International efforts to protect endangered species rather than habitats are organised through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the Convention on Conservation of Migratory Species of Wild Animals (Bonn Convention). The International Board for Plant Genetic Resources (IBPGR) is an internationally funded organisation which seeks to promote the collection, documentation, evaluation, conservation and utilisation of genetic resources of important

DEGRADATION PROBLEMS include **dryland degradation** (desertification) **soil erosion, overgrazing, salinisation** of soil due to poor irrigation practices and **loss of soil fertility** due to the removal of nutrients. All are being tackled with varying levels of commitment and success by local governments and donor agencies. More resources would undoubtedly help to combat degradation providing countries adopted sensible resource management policies. Donors and African countries are already working together to improve the policy framework. Problems are generally site specific and remedies depend on options for intensifying resource use elsewhere to reduce pressure on sensitive areas or finding appropriate technical solutions. There would be little to be gained from creating new mechanisms to deal with the problems.

POLLUTION PROBLEMS include pollution of land air and water through for example, industrial pollution, agro chemical contamination and over-rapid urbanisation. Again donors and recipients have programmes in place, are increasingly coordinating their efforts at the national level and could do more with greater resources. International mechanisms such as the Basle Convention on toxic wastes contain specific provisions for assisting developing countries. The FAO Code of Conduct on the distribution and use of pesticides and the UNEP Code on other toxic chemicals provide frameworks for assistance. New institutions would not make programmes more effective.

INSTITUTIONAL CAPACITY: Developing countries lack the legal framework, baseline data, monitoring ability and expertise to understand and address environmental problems whether global or national. Where environmental protection agencies exist they are underfunded and lack credibility or power. They are still regarded as a costly irritant by ministries planning development who fail to grasp the need for environmental sensitivity if long term sustainability is to be assured. Donors can and do use existing aid mechanisms to help increase public awareness in developing countries and to train local staff. These efforts could be strengthened. Local non-governmental organisations can provide an effective channel for increasing environmental concern and the public participation necessary for good decision making. However donors who operate largely through government to government channels are often reluctant to be seen to be funding southern environmental lobbies.

evaluation, conservation and utilisation of genetic resources of important plant species especially where traditional varieties are under threat. The IBPGR funds research carried out by others and could be strengthened by the donor community. There is a need for a system similar to IBPGR for the conservation of animal genetic resources. The FAO recognises this and is addressing the problem notably by beginning to set up regional gene banks.

DEFORESTATION: is both a global problem through its effects on climate change and genetic diversity, and a local problem contributing to soil erosion, loss of soil fertility and flooding through rapid water run off. Efforts to counter deforestation are being made in most developing countries with more or less enthusiasm and almost all donor agencies contribute funding. International efforts are coordinated through the Tropical Forestry Action Plan which operates country by country and starts with a review of forestry policies to ensure that the framework for projects encourages a sustainable approach. The TFAP has succeeded in increasing donor and recipient funding for the forestry sector as a whole. The international community is now turning its attention to giving greater priority to forestry research and to agroforestry (the integration of trees in crop and livestock farming systems). A shortage of forestry expertise is emerging as a possible brake on greater assistance for the sector but there is no doubt additional sums could be spent productively.

Recently the International Tropical Timber Organisation has emerged as another channel for forestry assistance. The UK has tried hard to get ITTO agreement to a work programme concentrating on international issues such as the structure of trade and guidelines for commercial forestry which would complement the national focus of the TFAP. In the light of major Japanese funding provided to ITTO, whose headquarters are in Yokoha, care eill need to be taken to avoid duplication.

LOCAL ENVIRONMENTAL PROBLEMS IN DEVELOPING COUNTRIES

These include both problems of degradation (loss of quality in the natural resource base) and pollution (introduction of undesirable substances into the environment).

A

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(89) 303 final

Brussels, 12 July 1989

Proposal for a

COUNCIL REGULATION (EEC)

on the establishment of the European Environment Agency and the European Environment Monitoring and Information Network

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(presented by the Commission)

EXPLANATORY MEMORANDUM

1. The last European Council which took place on December 1st and 2nd. 1988, placed the environment issue high on its own Agenda when it accepted the Rhodes Declaration on the Environment and urged the Community to redouble its efforts in this field. The entry into force of the Single European Act, with its environment chapter, has reinforced the basis for Community action in the environmental field whilst at the same time imposing new responsibilities and obligations.

2. It is in this context that the initiative announced by President Delors in his speech to the European Parliament on January 16th, 1989, has to be placed. Mr Delors spoke of the setting up of a "European environmental measurement and verification system" involving regional or national, public or private facilities as part of a Community network. The concept of a European Environment Agency has to be seen as an essential component, the nodal point of a network which must in any case be established and progressively strengthened.

The added value of a "European environmental measurement and verification system" lies in the fact, quite simply, that at the present time such a system does not exist.

In general, there is no monitoring of environmental quality and trends on a European scale, nor any guarantee that the results of environmental monitoring will be comparable on a Community-wide basis.

Quite apart from the question of the comparability of data, there are at the present time important gaps in existing national environmental monitoring networks. The establishment of the system should act as a stimulus to efforts being undertaken to fill such gaps, ensuring a greater environmental monitoring at the national level and a greater validity for the European System as a whole.

3. The main objective of the Agency would be to assist the Community and the Member States to achieve the goals of environmental protection and improvement which are defined in the Treaty and in the Community's successive environmental action programmes. It can only do this in close cooperation with the environmental agencies and institutions of the Community and the Member States. It should therefore operate as far as possible by building on the existing environmental networks and institutions.

4. To this end, Member States are being asked to identify the main component elements of their national environmental monitoring and assessment networks, as well as other relevant institutions which could form part of the European network and where cooperation should be assured.

The principal areas of information to be covered by elements of the national and European networks should eventually include all elements permitting the acquisition of information enabling the state of the environment to be described from three points of view; the quality and

sensitivity of the environment and the pressures on it. Of particular importance will be :

- atmospheric emissions and quality
- water resources and quality/marine environment
- soil erosion/soil pollution/important land resources
- biotopes/nature conservation.

Further development of the work currently being carried out under CORINE (the Community's pilot programme for gathering, coordinating and ensuring consistency of information on the state of the environment) will be entrusted to the Agency.

6. Flexibility and decentralization should be a key element in the Agency's method of operation and in the functioning of the network. For example, the Agency might cooperate with national or regional institutes or organizations either directly or via 'focal points' designated for the purpose. Focal points might serve some or all Member States and might operate on a 'single-module' or multi-module' basis.

Clearly the cooperation between the Agency and the different elements of the network should take place on a purely voluntary basis, as a result of mutual agreement and shared concerns.

7. The data provided by and through the Agency and the network should be both rigorous and objective and should enable the Agency to publish periodic State of the Environment Reports providing readily-usable indicators of environmental quality and trends. The Agency should in general have an active publications programme, aimed at the general public as well as at the scientific community.

8. Special consideration needs to be given to the role of the Commission's Joint Research Centre (JRC) in the Agency/Network concept. The JRC should play an important part in the standardization of measurement techniques, etc. It is by no means the only Community institution which will have a role to play : the Statistical Office and the Community's Bureau of Reference are two other examples.

9. More generally, the Agency should establish close links with other bodies doing environmental research or whose output could be a useful 'input' for its work (e.g. the European Space Agency, OECD, the Council of Europe). Avoidance of duplication would be important, provided that the primary criteria of validity and objectivity are being respected. Similarly, there should be close coordination between the Community's research programmes (contract research and concerted actions) on environment and climatology and the activities of the Agency).

10. Wherever possible, the output of the Agency and the network should be compatible with and contribute to wider international monitoring and data networks, e.g. the Earthwatch programmes run by the United Nations Environment Programme (UNEP)(GEMS, GRID, IRPTC etc.), the World Conservation Monitoring Centre in Cambridge, the pan-European Programme for the Monitoring of Air Pollution (EMEP) etc.

11. The Agency should be first and foremost a Community body, but given the international nature of many environmental problems, as well as the multi-national character of much environmental work, the participation of third countries should be envisaged.

As is already the case with certain of the Community's Research Programmes, the Council Decision establishing the Agency should therefore provide for the participation (cooperation) of non-Community countries in or bordering Europe, through the negotiation of an agreement between the Community and the country in question. Such agreements would need to specify the nature of the participation and any relevant conditions (e.g. financial contribution).

Proposal for a

COUNCIL REGULATION (EEC)

on the establishment of the European Environment Agency and the European Environment Monitoring and Information Network

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 130s thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas the protection of the environment has become one of the basic concerns of the Community when conceiving and carrying out its policies,

Whereas according to Article 130s of the Treaty, in preparing its action relating to the environment, the Community shall take account, inter alia, of the available scientific and technical data;

Whereas in accordance with Council Decision 85/338/EEC[1] the Commission has undertaken a work programme concerning an experimental project for gathering, coordinating and ensuring the consistency of information on the state of the environment and natural resources in the Community; whereas it is now appropriate to take the necessary decisions regarding a permanent environmental monitoring and information system;

Whereas systematic monitoring and harmonized collection, validation and processing of environmental data throughout the Community and, as far as possible, in cooperation with third countries and international organizations is necessary in order to provide full, objective scientific, technical and economic information as a reliable basis for the action to be taken for the protection of the environment, for the assessment of the implementation and results of such action and for sound information to the public on the state of the environment;

Whereas there already exist in the Community regional or national, public or private facilities providing such information and services;

Whereas, in order to coordinate their efforts for the benefit of the Community these facilities should be linked together in a network forming a European environmental monitoring and information system in which a European Environment Agency on the Community level should be the coordinating element;

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[1] OJ No L 176, 6.7.1985, p. 14.

Whereas the status and structure of such an Agency should correspond to the objective character of the results it is intended to produce and allow it to carry out its functions in close cooperation with the existing national and international facilities;

Whereas the Agency should be given legal autonomy while maintaining a close institutional relationship to the Commission and respecting the overall political responsibilities of the Community and its institutions.

Whereas all countries which share the Community's concern for the objectives of the Agency should be able to participate in its work as laid out in agreements between the Community and themselves,

HAS ADOPTED THIS REGULATION :

CHAPTER I : THE SYSTEM

Article 1
(Objective)

This Regulation establishes the European Environment Agency and the European Environment Monitoring and Information Network (together referred to as the "System"). The objective of the System is to furnish the Community and the Member States with the technical and scientific support to allow them to achieve the goals of environmental protection and improvement which are established in the Treaty, in the Community's successive environmental action programmes and at international, national, regional and local levels.

Article 2
(The Tasks)

For the purposes of achieving the objective set out in Article 1, the tasks of the System shall be :

(i) to provide the Community, the Member States and participating third countries with the objective information requested for the formulation and implementation of sound and effective environmental policies;

(ii) in particular, to provide technical, scientific and economic information requested by the Commission in its tasks of identification, preparation and assessment of the implementation and results of environmental action and legislation.

(iii) to stimulate the development and the application within the Agency of techniques of environmental modelling and forecasting in order that adequate preventive action can be taken at the appropriate time;

(iv) to help ensure the harmonisation and comparability of environmental data in the Community as well as the integration of European environmental data into international environmental monitoring programmes, such as those established within the framework of the United Nations and its system of agencies;

(v) such other tasks as may be defined by the Management Board in agreement with the Commission;

Article 3
(Principal Areas of Work)

1. The principal subject areas to be covered by the System shall include as far as possible all elements permitting the acquisition of information enabling the state of the environment to be described from the following points of view :

(i) the quality of the environment,
(ii) the sensitivity of the environment;
(iii) the pressures on the environment.

2. The system shall furnish information which will be directly useable in the implementation of Community policy relating to the environment as well as in that of actions and programmes drawn up at international, national, regional and local levels.

Priority will be given to the following areas of work :

- air quality and atmospheric emissions;

- water quality, pollutants and water resources;

- the state of the soil and of vegetation;

- land use and resource aspects.

The system shall take account of economic questions, especially by linking environmental information to the official socio-economic statistics.

CHAPTER II : THE AGENCY

Article 4
(Status and Responsibilities)

1. The Agency shall have legal personality. It shall enjoy in all the Member States the most extensive legal capacity accorded to legal persons under their laws; it may, in particular, acquire or dispose of movable and immovable property and may be a party to legal proceedings.

2. The Agency shall be responsible for fulfilling the tasks of the System as specified in Article 2. In particular it shall have the role of coordinating the Network and of ensuring the comparability and consistency of the information supplied through the Network. It shall be entrusted with, and be responsible for continuing as appropriate, the work undertaken by the Commission pursuant to Decision 85/338/EEC. It shall assist the Commission in the tasks which this last has given it.

3. The Agency shall ensure the wide diffusion of reliable environmental data. It shall publish periodic reports on the State of the Environment at a frequency to be determined by the Management Board.

4. Environmental data supplied to, or emanating from, the Agency shall not be subject to restrictions as regards publication or dissemination to the public.

5. The Commission's Representation Offices and the Agency will operate in reciprocal relay. They will contribute to the distribution of information furnished by the Agency through the medium of the national information relays in the Member States.

Article 5
(Executive-Director)

1. The Agency is headed by an Executive-Director appointed by the Management Board on the proposal of the Commission for a period of five years, which shall be renewable. The Executive-Director shall be the legal representative of the Agency. He shall be responsible

- for the proper preparation and execution of the decisions and programmes adopted by the Management Board,

- for the day-to-day administration of the Agency,

- for the preparation of the statement of revenue and expenditure and execution of the budget of the Agency,

- the preparation and publication of the reports specified in Article - (3),

- for all staff matters,

- for undertaking the tasks referred to in Article 6.

He shall obtain the opinion of the Scientific Committee referred to in Article 7 for the success of recruitment of the Agency's scientific staff.

2. The Executive-Director shall be accountable to the Management Board for his activities.

3. The Executive-Director shall present an annual report on the activities of the Agency to the Commission, to the Council and the European Parliament.

4. The Commission may, for important reasons, at any time propose that the Executive-Director be replaced.

Article 6
(Management Board)

1. The Agency shall have a Management Board consisting of one representative of each Member State and two representatives of the Commission. Representatives of Member States shall be chosen so as to promote the closest and most efficient cooperation possible between the Agency and national environmental monitoring and information entities or networks.

In addition, the European Parliament shall designate two scientific personalities particularly qualified in the field of environmental protection, who shall be chosen on the basis of the personal contribution they are likely to make to the Agency's work.

Each member of the Management Board can be represented by an alternate representative.

2. The term of office of representatives shall be four years, renewable once.

3. Third countries may be represented on the Management Board on the basis of the agreements which may be concluded between them and the Community in accordance with Article 16.

4. The Management Board shall elect its Chairman for a period of four years and adopt its rules of procedure. Each member of the Management Board shall have a vote.

For their adoption, the decisions of the Management Board shall require a simple majority of members, except that the appointment or revocation of the Executive-Director shall require a two-thirds majority of the members.

5. On the basis of a draft submitted by the Executive-Director and after consultation with the Scientific Committee provided for in Article 7 and approval by the Commission, the Management Board shall adopt the annual work programme of the Agency.

The programme can be adapted in the course of the year by the same procedure.

6. The Management Board shall, by 31 January each year, at the latest, adopt an annual general report on the activities and the financial situation of the Agency and shall submit it to the Commission, the European Parliament, the Member States and the participating third countries referred to in Article 16.

7. The Management Board shall designate a Scientific Committee of six members to assist it in drawing up the annual work programme.

Article 7
(Scientific Committee)

1. The Management Board and the Executive-Director shall be assisted by a Scientific Committee which shall deliver an opinion where provided for in this Regulation and on any scientific matter concerning the Agency's activity which the Management Board or the Executive-Director may submit to it.

2. The Committee shall be made up of six members designated by the Management Board for a renewable term of four years. It shall function as determined by the rules of procedure provided for in Article 6(4).

Article 8
(Financial Provisions)

1. The Management Board shall draw up an estimate of revenue and expenditure which shall be in balance for each financial year, which shall be the same as the calendar year by 31 January each year. This estimate, which shall include an establishment plan separate to that of the Commission, shall be forwarded to the Commission, to the Member States and to participating third countries.

2. The revenues of the agency shall include the contribution of the Community and of participating third countries; payments for services rendered and any other income.

3. The expenditure of the agency shall include its staff, administrative, infrastructural and operational expenses.

4. The Commission shall include an appropriate contribution to the agency in the preliminary draft budget of the European Communities. The budget of the European Communities shall each year under a specific heading include a contribution to the Agency.

5. The Management Board, after receiving the Commission advice shall adopt the statement of revenue and expenditure at the beginning of the financial year adjusting it to the several contributions granted to the agency and to its other resources.

6. The Management Board shall adopt the financial regulations of the Agency in agreement with the Commission.

7. Within two months after the end of each financial year the Executive-Director of the Agency shall submit the annual accounts of the preceding year and the annual balance sheet to the Commission and to the Court of Auditors of the European Communities. The Executive-Director of the Agency shall present the annual accounts and the annual balance sheet together with the reports of the Court of Auditors and of the Commission to the Management Board for approval. The Executive-Director of the Agency is entitled and, if requested by the Management Board, obliged to comment on the reports.

8. The Management Board shall give a discharge to the Executive Director in respect of the implementation of the estimate of revenue and expenditure for each financial year. It shall submit it to the Commission.

Article 9
(Cooperation With Other Bodies)

1. The Agency shall actively seek the cooperation of other Community bodies and programmes, and notably the Joint Research Centre, the Statistical Office and the Community's Environmental Research Programme, in the operation and further development of the System. In particular :

- cooperation with the Joint Research Centre shall include the tasks set out in the Annex under A;

- coordination with the Statistical Office of the European Communities (EUROSTAT) and the Statistical Programme of the European Communities will follow the guidelines outlined in the Annex under B.

2. The Agency shall also cooperate actively with other bodies such as the European Space Agency, OECD, the Council of Europe and the International Energy Agency as well as the United Nations and its system of agencies, particularly the United Nations Environment Programme (UNEP) and International Atomic Energy Authority.

CHAPTER III : THE NETWORK

Article 10
(Component Elements)

1. Member States shall, within three months of being notified of the establishment of the Agency, indicate to the Agency the main component elements of their national environmental monitoring networks, including any relevant institutions, which in their judgement could or should be part of the System, taking into account the need to ensure the most complete geographical coverage possible of their territory.

2. They should in particular identify, from among the above, institutions or other entities ("operational centres") in their territory which could be specifically entrusted with the task of cooperating with the Agency in respect of specific geographical or sectoral areas of interest. Such areas of interest may extend across national boundaries.

3. The Agency shall, within six months of receiving the information referred to in paragraphs 1 and 2, confirm on the basis of a decision by the Management Board the principal elements of the Network, including the main "operational centres" for priority areas of interest. The Agency maintains an updated list of the network elements as they evolve.

Article 11
(Working Arrangements)

1. The Agency shall make the necessary arrangements with entities referred to in Article 10 for the execution of specified tasks.

2. These entities may - in consultation with the Agency - make arrangements with other institutions or bodies, whether public or

private, where they believe it necessary for the efficient execution of their tasks. The Agency should be notified of such arrangements.

CHAPTER IV : FINAL PROVISIONS

Article 12
(Privileges and Immunities)

The Protocol on the privileges and immunities of the European Communities shall apply to the Agency.

Article 13
(Staff)

Apart from the civil servants and other personnel seconded by a Community institution, the Agency will be able to dispose of its own staff subject to a special regime set out by Council Regulation adopted by qualified majority from a Commission proposal.

In respect of this personnel, the Agency exercises the powers devolved to the Authority having the power of nomination.

The Management Board will, in agreement with the Commission, pass the appropriate rules.

Article 14
(Professional Secrecy)

Members of the Management Board, the Executive Director, the staff and all other persons engaged in the activities of the Agency shall be required, even after their duties have ceased, not to disclose information of the kind covered by the obligation of professional secrecy

Article 15
(Liability)

1. The contractual liability of the Agency shall be governed by the law applicable to the contract in question. The Court of Justice of the European Communities shall have jurisdiction to give judgment pursuant to any arbitration clause contained in a contract concluded by the Agency.

2. In the case of non-contractual liability, the Agency shall, in accordance with the general principles common to laws of the Member States, make good any damage caused by the Agency or its servants in the performance of their duties.

The Court of Justice shall have jurisdiction in disputes relating to compensation for any such damage.

3. The personal liability of servants towards the Agency shall be governed by the relevant provisions applying to the staff of the Agency.

Article 16
(Participation of Third Countries)

1. Countries which are not Members of the European Community but which share with the Community and Member States a common interest in the objectives of the System shall be able to participate fully in the Agency and the Network as laid down in Conventions between the Community and themselves following the procedure laid down in Article 228 of the Treaty.

2. The Conventions shall in particular specify the nature and extent of the full participation by the countries in any decision to enlarge or otherwise significantly amend the System. They shall also include provisions on financial contributions and staff.

Article 17
(Entry into Force)

This Regulation shall enter into force on the third day following that of its publication in the Official Journal of the European Communities.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels

For the Council

ANNEX

A. Cooperation with the Joint Research Centre

- harmonization of environmental measurement methods*,

- intercalibration of instruments*,

- standardization of data formats,

- development of new environmental measurement methods and new instruments,

- other tasks as agreed between the Executive-Director of the Agency and the Director General of the Joint Research Centre.

B. Cooperation with EUROSTAT

1. The System will as far as possible make use of the statistical information system established by EUROSTAT and the National Statistical Services in the Member States.

2. The Statistical Programme in the field of environment will be agreed between the Executive Director of the Agency and the Director General of EUROSTAT and will be presented for approval to the Management Board of the Agency and the Statistical Programme Committee.

3. The Statistical Programme is conceived and implemented within the framework established by the statistical international bodies, such as the UN Statistical Commission, the Conference of European Statisticians and OECD.

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* Cooperation in these areas shall also take account of the work carried out by the Community Bureau of Reference.

FICHE FINANCIERE

1. Ligne budgétaire concernée

Chapitre 6
Article 666 "Agence Européenne pour l'Environnement"
Nouvelle ligne (APB 1990)
Rubrique n° 4 "Autres politiques" des Perspectives financières jointe à l'accord interinstitutionnel.

2. Proposition de classification

Dépense non obligatoire
Crédits non dissociés

3. Base juridique

Règlement du Conseil du ... relatif à la création de l'Agence Européenne pour l'Environnement et du réseau européen de surveillance et d'information sur l'environnement.

4 Description et justification de l'action

. Aider la Communauté et les Etats membres, ainsi que des pays tiers intéressés, à mettre en oeuvre les principes de protection de l'environnement inscrits au Traité ;

. fournir des informations objectives à la Communauté, aux Etats membres ainsi qu'aux pays tiers participants, facilitant la formulation et l'exécution de politiques efficaces dans le domaine de l'environnement ;

. fournir les informations techniques, scientifiques et économiques permettant à la Commission de préparer les législations et actions indispensables dans le domaine de l'environnement ;

. encourager le développement et l'application de technologies et de modèles prévisionnels afin de mettre en place des actions préventives appropriées ;

. assurer l'intégration des données européennes dans les programmes internationaux concernant l'environnement tels que ceux qui ont été établis dans le cadre des Nations Unies et son système d'agences.

5. Nature de la dépense

Contribution inscrite au budget général des CE et versée à l'Agence.

L'Agence sera en outre financée par des contributions des Etats tiers participants et par des paiements pour services rendus. La contribution communautaire représentera au début la quasi totalité des ressources de l'Agence et devrait rester prépondérante par la suite.

6. Incidences financières pour le budget communautaire

6.1. Dotations demandées (la première année)

Elles sont divisées comme suit :

Année 1

Frais de personnel(1)	1.200
Equipement	1.250
Contrats d'exécution	3.000
	5.450

Les frais opérationnels peuvent être décomposés en deux éléments principaux :

- certaines tâches actuellement effectuées par la DG XI seront transférées à l'Agence,

- des nouvelles tâches seront effectuées par l'Agence dont notamment la création des réseaux de mesures d'information et de vérification.

Les nouvelles tâches vont croître au fur et à mesure du développement de capacité d'action de l'Agence. Les coûts seront principalement ceux associés à la création et/ou à l'amélioration des réseaux d'informations.

Il conviendra de veiller particulièrement à ce que l'Agence ne finance pas les tâches devant être effectuées par les Etats membres dans le cadre de leurs obligations propres.

(1) Tout le personnel ne sera pas engagé dès la première année. Il est envisagé que le recrutement se fasse sur trois ans. Une vingtaine de postes seraient pourvus la première année.

6.2. Impact budgétaire

La contribution de la Communauté à l'Agence visant les travaux de préparation et de lancement sera financée à travers l'article 666 (actuellement "p.m." dans l'APB 90).

En 1990, les dépenses opérationnelles de l'Agence pourraient pour une grande partie être financées par des transferts à partir de la ligne 6601 (CORINE).

A partir de 1991, les crédits jugés nécessaires comme contribution de la Communauté au financement de l'Agence seront fixés par la procédure budgétaire.

ISSUES IN DETAIL

Objectives, Tasks and Principle Areas of Work (Articles 1 to 3)

The breadth of the objectives and tasks are too general and too wide-ranging. As drafted they could lead to an expanded body in the future, taking on, for example, an enforcement role and the right to initiate policy. The objectives, tasks and powers of the Agency need to be narrowed down to restrict it to data provision and analysis. The open-ended remit of undertaking "such other tasks as may be defined in Article 2(v)" needs to be removed.

Legal Status (Article 4)

The legal position and powers of the Agency are unclear. How would it operate independently of the Commission and yet be its servant? would it have powers to require the provision of information? would it collect information and so duplicate the work of others? If it had a free rein on publication how would questions of confidentiality be dealt with?

Executive Director (Article 5)

We challenge the Commission's sole right to nominate the Executive Director. The Management Board should have a stronger role here.

The Management Board (Article 6)

The proposal for the composition and voting rights of the Management Board appear unsatisfactory. EFTA and other countries will be eligible to be represented but it is unclear whether such countries will be entitled to vote regarding decisions. Whereas there would seem little objection for non-EC countries participating, it could set a dangerous precedent for such countries to be able to hold sway, particularly as a simple majority voting system is envisaged. The Board should be established as a Community body first.

Scientific Committee (Article 7)

It is unclear why additional machinery of this kind is necessary and precisely what its role would be.

Financial Provisions (Article 8)

The funding of the Agency needs to be much more clearly set out. In particular, what would be the arrangements for and details of transferring part of DG XI's budget to the Agency? What would Member States contributions be and those of participating third countries? Would the Agency charge for its services?

Cooperation with Other Bodies (Article 9)

It is not made clear what the relationship between the Agency and DG XI would be. Would the Agency replace DG XI in its relationship with the EC Statistical Office, for example? Such arrangements need to be much more clearly set out.

The Network (Articles 10 and 11)

Member States would be required, within three months of the Agency having been established, to identify and notify the main component elements of their national environmental monitoring networks. This assumes that suitable networks already exist in each Member State. We know that these networks vary significantly in character within and between countries. The practicality of operating to this time table needs to be reconsidered, along with queries about design and management of the network. The consequent burden of this on Member States should be assessed before firm proposals are made about training.

Fiche Financiere

The proposed budget for the first year is nearly 5.5 mecus with no indication of the likely site of the budget in following years. No mention of staff numbers is given except to say that it would take three years for the Agency to reach its full complement. These aspects need to be clearly defined as should the expected contributions from DG XI, Member States and participating non EC countries.

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Prime Minister
Content for Allen and the Cabinet Office to pursue this idea further and report back in September as proposed in para. 9.

PAUL GRAY

12 July 1989

RRC 6

RAINFOREST PROTECTION -

THE GOLDSMITH IDEA AND AN ALTERNATIVE PROPOSAL

Yes - debt/LGT not

A. A Pay-for-Forest Proposal

1. Goldsmith proposes that the industrialised countries pay Brazil etc for the service of maintaining their forests - a carbon-absorbing oxygen-producing machine for the world. In his original proposal, the payment would be made in the form of government debt extinction . In discussion, however, he conceded that this was not really desirable. It would tend to confuse both the forests issue and debt negotiations. Best to keep a clean slate.

2. A pay-for-forests proposal can be put in the form of the OECD countries agreeing to pay a "service charge" annually for designated acres of forest which remain in some specified "natural" state. The targetted forest areas would be those acres which were likely to be at risk. We would not select areas where there was no possibility of degradation. The service charge would be fixed so that it is above the value of the forest in any other (agricultural) use, and below the costs of alternative methods of carbon-locking to the same degree as one acre of forest. I suspect that the latter cost level is high but this needs to be confirmed. The value of the forest in the next best alternative use, however, should be relatively easy to determine - although it will vary greatly according to location. It is important to stress that in principle one would not wish to prevent the destruction of some areas of forest where the alternative use value is suitably large. Nor should we object to uses of the forest that lock in the carbon component. And we should set our service charge with this firmly in mind

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(pointing out also the illogical and unscientific nature of the "green" policy which requires all virgin forest to so remain).

B. Administration

3. In order to keep it simple one would probably use a constant service charge per threatened acre. This would over compensate for much of the acreage but it avoids bureaucratic and administrative costs involved in a varying charge. I have only a vague idea of the appropriate service charge, but, from the scattered information on such forest land values, I would conjecture that an annual figure between $0.50 and $1.50 would be about right. This would be paid at the end of the year with confirmation, probably from satelite photographs, that the forest was intact. I believe it would be best to avoid any other "conditionality" so that we could claim that there is no shadow of an infringement of the sovereignty of the recipient country. We would then avoid the odium suffered by the IMF, and the World Bank.

4. Goldsmith had suggested that the administration of the scheme should be in the hands of an international financial institution such as an offshoot of the World Bank. After discussion, however, he agreed that this was not a good idea. The World Bank would convert the programme to its own bureaucratic interests. And it is best to separate the forest service charge from the aid syndrome and bureaucracy. For reasons which are given below it would be best if we, in the UK, set up a FORESAVE in London and financed it ourselves, but with the understanding that all OECD countries, if they choose to decide on a similar policy, are invited to use the ideas of FORESAVE in contributing to this initiative for world survival. I suspect that only a very modest staff (about seven to ten professionals) would be needed.

C. **Political Advantages**

5. This is an occasion where Britain could clearly take the initiative and lead the OECD countries. I would suggest that the Prime Minister, in order speedily to move OECD into recognising their "responsibility for preserving the world's climate", declare that Britain will pay a service charge for 5 per cent of the world's threatened rainforest (roughly our GNP as a fraction of OECD) unilaterally - beginning in 1990. We should choose the countries (eg British West Africa, Guyana and possibly Burma), where we have traditional connections and suggest that, if other OECD countries wish to participate, they should do the same.

6. The political advantages of such a declaration are obvious. The Prime Minister will be doing something, not convening international meetings, with their endless talk and paper promises, bewailing the selfishness of Brazil, Venuzuela, etc. This unilateralism will demonstrate the urgency with which we view the likelihood of environmental degradation. She will steal the clothes of the Greens and people will see that there was no Emperor under those green raiments. It will, however, reassure the many supporters of the Government who are very worried about possible environmental degradation.

7. I conjecture that, under pressure from the influential Greens, Mitterand and Kohl, followed by Bush, will speedily announce their own initiatives. These need not be the same as ours. Germany and France can tailor their policies so they are consistent with their institutions, customs and interests. The French will naturally gravitate to the Francophone countries, whereas Germany, the Iberian countries, Italy and the United States will be likely to

adopt Latin America. The important point is that a variety of approaches, each developed by a national government according to its perceptions, abilities and interest will give a quicker, better and more enduring result than any enforced uniformity through some multinational institution.

D. The Next Steps

8. As for the cost, this needs to be worked out in detail. Some of it (and I would argue all, but politically this may be impossible) should be subsumed in the expansion in the aid budget. But at this stage financing can be separated from the basic idea and considered later.

9. I put these arguments to an interdepartmental committee, chaired by Richard Wilson, and they were welcomed as a basis for a quick study to see:

(a) whether we could identify the threatened forests;

(b) whether we could specify 'friendly' forest use and identify them for monitoring purposes;

(c) where the likely cost would be.

I hope that we shall be able to report by September on the feasibility and potential advantages of such a unilateral initiative.

Alan Clark

A.A. ALAN WALTERS

COVERING CONFIDENTIAL

BRITISH EMBASSY,
PARIS.

10 July 1989

FROM THE AMBASSADOR

C D Powell Esq
Private Secretary to
the Prime Minister
Prime Minister's Office
No 10 Downing Street
LONDON SW1A 2AA

My dear Charles,

1. When Crispin was here for a Sherpas Old Boys' dinner, Michel Rocard asked to see him, as an old friend. I went along too, and Crispin and I thought that, while others in London were looking at the result, you might like a blind copy for your own information.

Yours ever,

Ewen.

Ewen Fergusson

COVERING CONFIDENTIAL

RECORD OF A DISCUSSION BETWEEN THE FRENCH PRIME MINISTER AND SIR CRISPIN TICKELL, MATIGNON, 10 JULY

Present:

Sir Crispin Tickell
Sir Ewen Fergusson

Monsieur Michel Rocard
Monsieur Philippe Petit

1. Sir Crispin Tickell called on the French Prime Minister at the latter's request for a discussion about global climate change. Their conversation lasted about 40 minutes.

2. M. Rocard spoke of The Hague Declaration and the institutional ideas in it. He would not, he said, be satisfied with institutional machinery which would give a veto to any single country. He accepted that an institutional authority on global climate change should derive from the United Nations and the World Meteorological Organisation. He agreed there should be much greater exchanges of information. Nevertheless some decision making machinery would be required. He agreed that there should be reflection about the means, but he did not think it possible to avoid the use of majority decisions.

3. Sir Crispin Tickell said there were three priorities: negotiation of a convention, institutional arrangements, and the action which should follow. He reported on the Prime Minister's April seminar, his own speech to ECOSOC on the international aspects on 8 May, and our discussions with the Russians in Moscow on 3 and 4 July. Soviet approach was threefold: conceptual, political and practical. It made good sense. For our part we believed that little could be achieved without a common scientific base. However we attached particular importance to the conclusions of the Intergovernmental Panel on Climate Change (IPCC). We did not want to frighten the world with too much too soon. That was why we did not like the references in The Hague Declaration to such things as recourse to the International Court of Justice, majority voting, compensation etc. For example there had already been an initially negative reaction from the Brazilians. But Mr Chris Patten (ODA) had been to Brazil and had negotiated a valuable practical agreement with the Brazilians on the rain forest.

4. Sir Crispin Tickell continued that we put our emphasis on negotiating a convention and supporting the work of the Intergovernmental Panel. We thought it best to make use of existing institutions, including possibly the Security Council. We could see whether the Intergovernmental Panel might not be continued after the submission of its report in the guise of

/Intergovernmental

Intergovernmental Commission under the authority of the Security Council. It should go without saying that Britain and France were in a particularly strong position at the Security Council. To create an entirely new institution would take a long time and run into every kind of trouble (including who should belong to it and who should exercise what powers in what conditions). Instead we should make use of what exists. He found that the use of the word «compensation» to poor countries in The Hague Declaration would cause us, and probably others, considerable difficulties; it would be tantamount to writing the non-industrial world a blank cheque. The first step was for the industrial countries, who had unwittingly created most of the problem, to give leadership and admit the principle of giving help to others. In the immediate future they would have to work by example more than preaching to others. But the problem was global, and eventually there would have to be global arrangements.

5. M. Rocard said that as far as he could judge there was only one major disagreement between us: the urgency of the problem. He had been surprised at the speed of agreement at The Hague. He believed that there was a growing sense of emergency and that technical progress would impose the need for uniform standards over the next two years or so. If we thought that was premature, others did not. The francophone African countries had now joined their names to The Hague Declaration, as also the Arab League. Since The Hague Conference the five members of the Community who had not then signed had signified their agreement. It was as well they had agreed later to avoid the reproach that The Hague Declaration was dominated by the Europeans (a point of particular concern to India). Only Britain now stood out. Switzerland, Austria, Iceland, Czechoslovakia, Poland, Pakistan, Bangladesh, Guinea and Israel had now signed up. The terrain was more favourable than the British still seemed to think. He hoped that HMG would continue to look at the possibility of joining. The last thing that he wanted was continuing disagreement between us.

6. Sir Crispin Tickell said that it was true that there was still disagreement. We had not signed The Hague Declaration and would not do so. But we were anxious to work with the French on what now lay ahead. M. Rocard agreed that we should work together. He hoped that there could be contact between British officials and The Hague Secretariat on the drafting of the convention. There was much in common on practical aspects.

7. Sir Crispin Tickell said that Britain was the Chairman of one of the working groups of the Intergovernmental Panel, and had been especially charged to put together the elements of a convention. Naturally we were in touch with other countries, including some of the signatories to The Hague Declaration, and would take their views into account. The

/fundamental

fundamental difference between us at the moment was less over the nature and urgency of the problem than about how best to make progress in dealing with it. We believe that without a reasonable measure of scientific consensus, it would be difficult for governments to take the necessary decisions. It was all too easy for people to sign declarations. We had to get down to the practicalities. A number of ideas were under consideration, for example a carbon tax had been mentioned in a paper recently published by the Centre for Policy Studies. This might not run, but all the possibilities needed to be explored. In the meantime we needed to work together in New York. There would be a General Assembly resolution this year, as there was in 1988, and we did not want to open up differences between countries who were united on essentials. Last year he had set up a group of environmentally interested Ambassadors to pilot through the main resolutions on this subject. Unfortunately the French, although invited, had decided not to participate. This year we were doing the same. The French were participating, and we hoped to have their full help and cooperation.

8. M. Rocard said that we could work on some step by step mechanism, and defer looking at institutional arrangements until the phase of scientific analysis had been carried further forward. Nevertheless there was both a need and a demand for institutional progress and for some arrangement for compensation. We might not like the word but there had been heavy pressure in this respect from India and Brazil. We in the industrial West must show that we were ready to be responsible for more than proportional help. In any case The Hague Declaration was essentially a mandate to open negotiations, not a definition of their final outcome.

9. Sir Crispin Tickell said that even the use of the word «compensation» would start things on the wrong footing. India and Brazil among others were asking for payment not to do things which it was already in their own interest not to do. They would suffer as much as anyone from global climate change, not least because the monsoons might become irregular. Any country with a large land area and dependent on seasonal rainfall, like the Chinese, would be at particular risk. So it would be better to avoid talk about compensating people. Certainly we should give help; but that was a different issue.

10. M. Rocard admitted the existence of the problem and said it reinforced the case for further diplomatic cooperation. Sir Crispin Tickell said that clearly no-one should exclude the development of further institutional machinery. But first we should concentrate on seeing what could be done with existing institutional instruments before tackling the difficult problem of what more might be required. M. Rocard said that it was a pity that there had been insufficient time for Mr Gorbachev to raise this issue with President Mitterrand. Sir Crispin Tickell said that nor had it come up in his meeting with Mrs Thatcher

/in April.

in April. But he had found it reassuring after Anglo-Soviet talks in Moscow last week that the Russians should be on the same wavelength. They had said that the Soviet government would not sign The Hague Declaration but that it would be glad to find a point of convergence. The Russians also agreed with us on the advantages of using the Security Council in one way or another, but had mentioned the obvious difficulties. They were anxious to work closely with us. The trouble was that some third world countries were hankering after something wholly new. But something new could all too easily suffer the fate of the negotiations on the Law of the Sea and lead to 15 years of sterile argument.

11. M. Rocard said that it was clear from that what was needed was an intermediate agreement but one could not exclude from that a requirement for some new institutional machinery. Sir Crispin Tickell said that we were working to a clear timetable. First there was the forthcoming debate in the General Assembly in the autumn; next there was the submission of the report of the Intergovernmental Panel in September 1990; then there was the World Climate Conference; and finally there was the World Environmental Conference of 1992. We should take advantage of the three years ahead of us to conclude the convention, work out our ideas on institutions, and look towards action in the hope that all these could be settled at latest by the World Environmental Conference in 1992. Mr Gorbachev in his speech to the UN General Assembly last year had mentioned the idea of a Summit meeting of the main interested countries before 1992, but Sir Crispin Tickell noticed that the Russians had softpedalled this in their discussions last week. But it was not to be excluded. We now had to make the best of the timetable which lay ahead. Naturally the views of The Hague participants should be taken into account at every state.

12. M. Rocard said that clearly between now and the General Assembly in the autumn it would be helpful if we could see how far our ideas were compatible and we should work together. He specifically mentioned M. Jean Ripert as the appropriate point of contact with the French administration. M. Petit said that the scientific consensus might not be as complete as we would wish when the Intergovernmental Panel refronted next year. We could not wait for ever. Sir Crispin Tickell said that this was so. There were many scientific loose ends. Most of the modelling was inadequate. But we must make the best of what was available. M. Rocard agreed. He favoured close cooperation between us.

British Embassy,
PARIS

10 July 1989

SEPU.

THE U.K. CENTRE FOR ECONOMIC AND ENVIRONMENTAL DEVELOPMENT

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LONDON SW1X 8BA ENGLAND
TELEPHONE: 01-245 6440/1

Ms Caroline Slocock
Secretary to the Prime Minister
10 Downing Street
London
SW1A 2AA

10th July 1989

Dear Caroline

May I first thank you for your part in organising my recent meeting with the Prime Minister. I wonder whether it would be more appropriate to send communications addressed to you, rather than directly to the Prime Minister. If your portfolio changes in the future, perhaps you could kindly advise us of the name of your successor.

I enclose two copies of the latest issue of our Bulletin which is a special issue on the UK's wider environmental role. You will see that it also reports briefly that my meeting with the Prime Minister occurred, without revealing the contents of our discussions.

One point which we did discuss was the "safety inherent reactor" concept. I enclose an article from the most recent issue of ATOM, the UKAEA's journal, which discusses this. The first part is somewhat technical but the closing sections discuss the general concept. I have also asked some of the partners in the consortium to send some material direct.

Finally, can I turn to a matter which I raised at the ministerial seminar on 26th April, when there was debate on whether private enterprise initiative alone could respond to environmental challenges. I mentioned then that a leading UK company had initiated some discussions with us on a novel approach to urban transport problems designed to address both congestion and pollution problems.

I can now reveal some more details, although I would be grateful if you could treat them in confidence. The enterprise is the leading car hire company, Hertz UK Limited. They now wish to take their ideas forward and have asked us to convene a small high-level discussion with the leading agencies, public and private, whcih would need to be involved if their proposals are to progress.

/cont...

I also mentioned the matter briefly to Mr Channon with whom I talked before lunch on April 26th and am contacting him to ask for his help in arranging the appropriate Department of Transport involvement. I thought, however, that the Prime Minister might like to know of this substantiation of my assertion that private enterprise is responding to the environmental challenge.

The additional attraction is that, through the company's international links, there might well be opportunities to export this UK initiative.

Best wishes

Yours sincerely

David R Cope
Director

Enc

ATOM

JUNE 1989 NUMBER 392

The United Kingdom Atomic Energy Authority

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EDITORIAL AND CIRCULATION

Editor **Wendy Peters**

Deputy editor **Alan Emmings**

Circulation **Marlys Ludicke**

(Please include your computer reference code with all circulation enquiries.)

Information Services Branch
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11 Charles II Street
London SW1Y 4QP
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London EC4V 6BJ
Telephone 01-236 7051/4

ATOM, the monthly magazine of the UKAEA, is available free. It is distributed extensively within the nuclear energy and electricity industries, both in the UK and overseas. Other recipients include the business and financial community, most MPs, universities, polytechnics, libraries, schools and members of the public.

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COVER ILLUSTRATION

Design of the Sir (small integral reactor), an integral PWR with core, steam generators, pumps and pressuriser all contained within a single pressure vessel. See feature, page 2.

ABC MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

ISSN 0004-7015

The Sir project

The UK Atomic Energy Authority, as a member of a consortium of four US/UK organisations, has developed a design for a small passive light water reactor suitable for deployment in the late 1990s. The consortium is bidding for a USDOE contract to develop the design for generic licensing. Dr Mike Hayns of the water reactors programme describes Sir (safe integral reactor), the 320 MWe reactor unit that is the basis of the design being submitted.

INTEREST IN THE DESIGN of advanced, or next generation, nuclear plant is quickening as the combined impact of growing environmental concerns over burning hydrocarbons and the projected requirements for new plant take hold.

More parochially, in the UK, the privatisation of the electricity supply industry (ESI) provides an additional reason why a new design might find early commercialisation. While the development of existing reactor designs continues, there is an increasing interest in smaller generating plants that offer the advantages of low capital cost, greater flexibility and a potentially lower environmental impact.

A joint USA-UK venture (see box) has been initiated to design a small nuclear reactor which complies with these requirements and is geared specifically to the needs of the late 1990s and early 21st century. The lead unit of Sir (safe integral reactor) could be built at the UKAEA's Winfrith site (see ATOM March 1989 page 35).

The principal driving force for the project is to provide a reactor system which, while being based firmly on existing technology, materials and know how, offers radical solutions to the economics, licensing and acceptability of nuclear plant. In this there is common ground between the USA and UK.

The partners agreed at a very early stage that the smallest possible size which could be shown to be economic should be chosen. This is because we believe that there is considerable benefit to be obtained from modularisation and that a smaller size opens up a much wider potential market.

It was, therefore, for economic and market potential reasons as well as purely technical ones that a size of around 300 MWe was chosen. At this size a completely different approach from that of the traditional PWR is possible and it is the aim of this article to describe this approach and how it can be translated to give a practical and economically viable electricity producing reactor.

Technical description

Sir is an integral PWR in which the core, steam generators, pumps and pressuriser are all contained within a single pressure vessel. The containment is of the pressure suppression type with a novel concept of dispersed, steel suppression tanks.

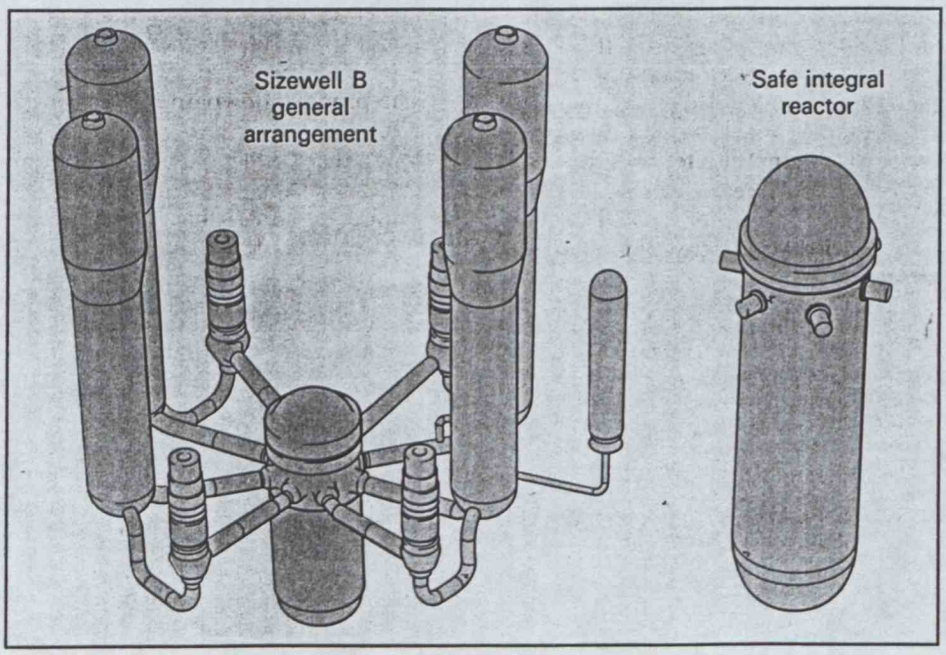
Pressure vessel

Figure 1 shows a current design of PWR (similar to that of Sizewell B) alongside the Sir reactor pressure vessel (RPV). In the standard design, the RPV contains only the reactor core. It is connected to the steam generators, the pressuriser and the pumps by large diameter pipework. In the Sir design all of these components are contained within a single vessel. This has very important consequences for constructability, operability and safety.

The drawback to the Sir type design is that a large station would need a very large vessel. Since we intended Sir to be geared for ease of construction and factory fabrication, this was not considered realistic. In figure 2 the Sir vessel is compared to the steam generator shell of a current Combustion Engineering designed system 80 reactor, and one from Sizewell B. It can be seen that the Sir RPV is approximately the same size and can therefore be manufactured using current techniques. Thus we have been able to use an integral design which is within current technology and is an economically viable proposition.

The main part of the vessel is 19·2 m long with an internal diameter of 5·8 m and a wall thickness of 0·28 m. It weighs about 907 t. The closure head containing the pressuriser region is 4·6 m high.

Figure 1. Comparison of a typical 4 loop distributed PWR design and Sir



Contributory partners to the venture

In the USA

Combustion Engineering
Us PWR designer whose units offer the leading capacity factor performance as confirmed by USNRC data.

Stone and Webster
A leading US/UK architect-engineering firm with major relevant nuclear/civil experience.

In the UK

Rolls-Royce and Associates
The foremost UK PWR supplier with over 20 units completed and operational.

United Kingdom Atomic Energy Authority
Paramount in the UK for nuclear R&D, nuclear safety analysis, operating experience and training capability.

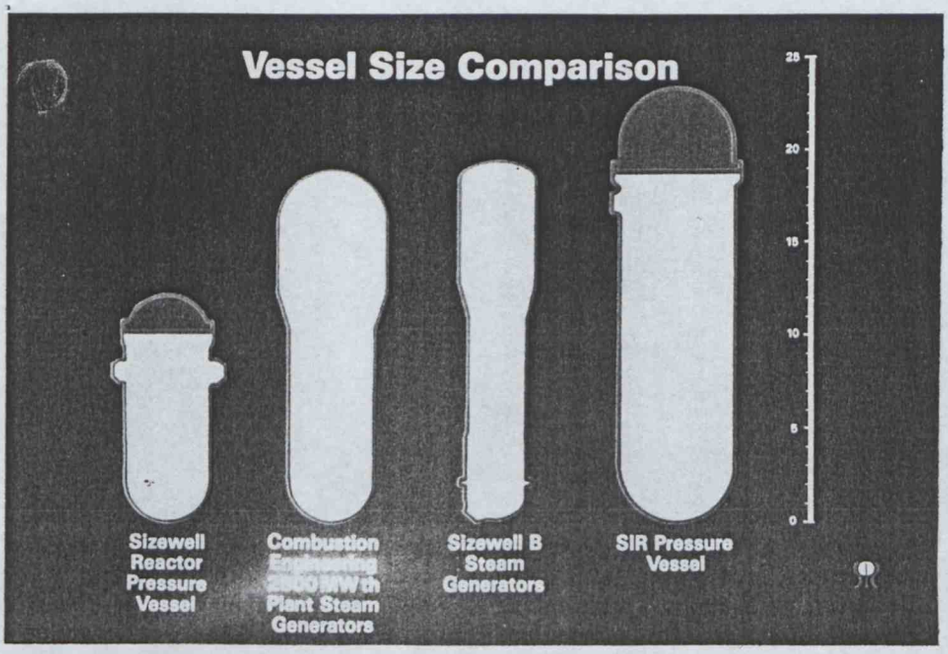
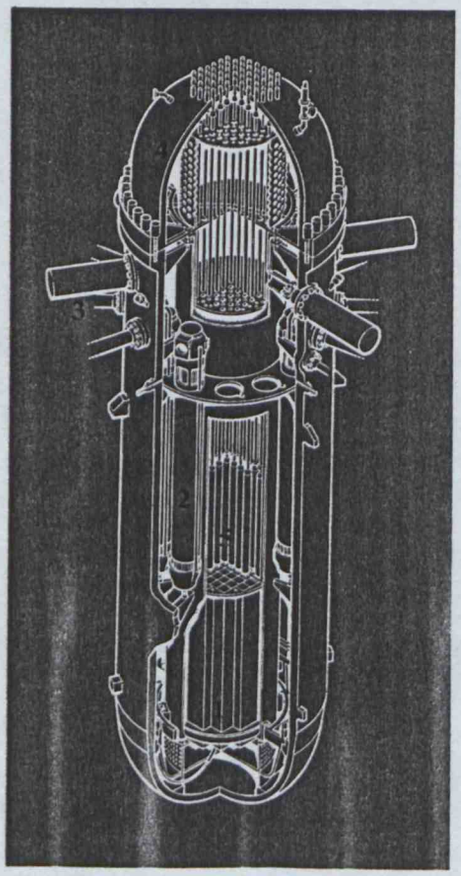


Figure 2. Comparison in size between the Sir RPV and other standard PWR components

Internal arrangements and flow paths

The arrangement of the internal components is shown in figure 3. The core is low down in the vessel. Control rods are driven on long drive shafts in an otherwise conventional PWR arrangement. Apart from the control rod drives and guides, the space above the core is left free for refuelling operations. Outside the core barrel is a ring of 12 modular steam generators. Sufficient space is left between them and the core to avoid high neutron activation levels in the lower part of each steam generator. There are six mixed flow pumps above the steam generators. The upper part of the vessel forms a pressuriser with electrical heaters to maintain the design pressure of 15·5 MPa.

Figure 3. Internal reactor pressure vessel components: 1. reactor core; 2. steam generators; 3. reactor coolant pumps; 4. pressuriser; 5. control rods



The primary flowpath is up through the core, through the pumps, down through the steam generators and back to the lower plenum under the core. The current design is capable of operating at 20 per cent of full power on natural circulation alone. The flows are shown schematically in figure 4.

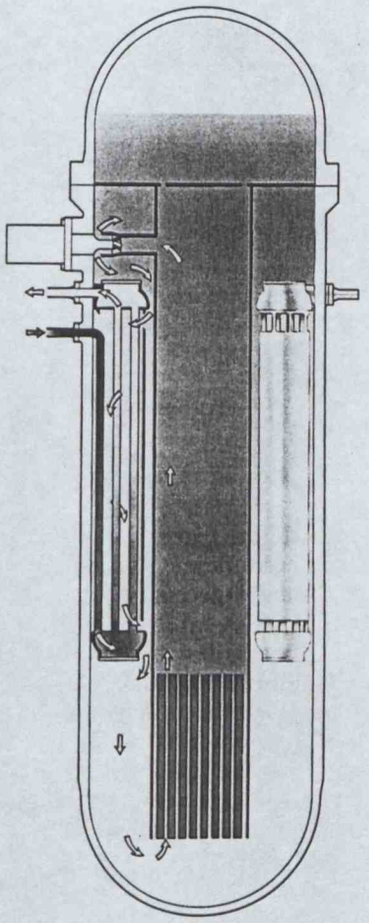


Figure 4. Primary circuit flow diagram

Reactor core

The reactor core design is based on standard Combustion Engineering design practice. The fuel pins are Zircaloy 4 clad, 9·7 mm OD and 3·47 m in active length arranged on a square lattice in fuel assemblies. There is a control element assembly (CEA) for each fuel assembly, since soluble boron is not used for reactivity control in Sir. Spaces for each element of a CEA occupy four fuel pin spaces and reduced enrichment fuel pins are provided round these positions to avoid power peaks when the control rods are raised. Control rod drives are standard and are mounted on the vessel closure head. In order to provide an adequate ligament between head penetrations, the fuel assemblies are larger than normal, being on a spacing of 285 mm. These contain 432 fuel pins.

Avoiding the use of boron for long term reactivity control is very beneficial in that the complex chemical control plant is not needed, the chemical environment seen by primary circuit components is less demanding and, if absolutely necessary, injection of boron can be held in reserve as an ultimate (and diverse) shutdown device. Instead of boron, long term reactivity control is provided by burnable (solid) poisons. Some of these are fixed in the new fuel elements and others are inserted to give control during the second and subsequent operating cycles.

The mean power density in the core is only 54·6 kW/l. This is about half that of current large plant and makes an important contribution to increased safety margins and operating flexibility. Furthermore, it means that the refuelling cycle is longer than for higher rated cores (two years compared to typical values of 12 to 15 months). This allows a much higher and more efficient target load factor of 87 per cent.

The power density in the Sir core and a number of important reactor system parameters are compared with those for current designs in table 1.

The core is supported by the core support barrel assembly which also follows standard CE design practice. It is held down by an extended holddown structure which in turn is held in place by the vessel head closure.

Refuelling is carried out off load with the control rod absorbers remaining

Table 1. Comparison of the principal thermal performance parameters for Sir and other selected PWRs

Plant parameter	*Oconee (B&W)*	*Calvert Cliffs (CE)*	*H.B. Robinson (W)*	*SIR (CE/RR&A)*
Rated core power (MWth)	2568	2700	2300	1000
Number of core fuel assemblies	177	217	157	65
RCS fluid volume (m^3)	342	314	257	402
Pressuriser volume (m^3)	42·5	42·5	36·8	80
Effective PORV area (m^2)	$6{\cdot}05\times10^{-4}$	$1{\cdot}40\times10^{-3}$	$1{\cdot}97\times10^{-3}$	$8{\cdot}9\times10^{-3}$
Ratio of RCS volume to core power (m^3/MWth)	0·133	0·116	0·112	0·402
Ratio of pressuriser volume to core power (m^3/MWth)	0·017	0·016	0·016	0·080

inserted into each fuel element. This ensures sufficient shutdown margin without the necessity to use dissolved boric acid.

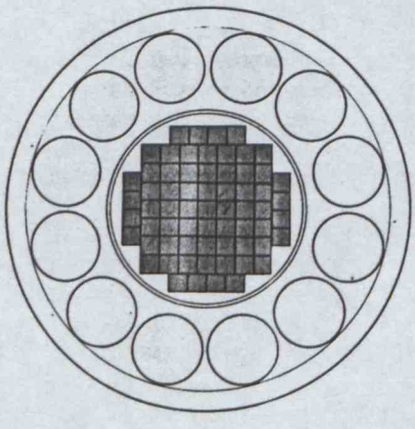
The core is designed to have a negative moderator temperature coefficient which is always sufficiently large to give stable reactor operation and to enhance the safety of the system response over a range of transient and accident conditions.

Steam generators

There are 12 identical steam generators in the Sir. They are of a once through design arranged in an annular space in the pressure vessel above the core. Figure 3 shows their position within the vessel. A cross section through the vessel at the level of the steam generators is shown in figure 5.

This arrangement enables the reactor to be refuelled without the need to disturb the steam generators and steam generator replacement can be performed with the core installed. The steam generator tubes are straight, with flat tubesheet headers top and bottom. The steam penetrations are level with the top steam header; feed penetrations are a little lower, with internal pipes taking feedwater down to the bottom feed header. Secondary water circulates inside the tubes, so there are no crevices exposed to secondary chemicals. Furthermore, and in contrast to conventional designs, the tube welds are in compression and hence any defects should not enlarge into cracks.

Figure 5. Cross section through the RPV showing the position of the steam generators



The steam generators are constructed from inconel 690 to minimise corrosion and can be isolated individually, enabling the plant to be operated at high power even if a defective unit is isolated. Figures 6 and 7 illustrate the straight tube, flowpath characteristics and the flows and layout in the upper header region respectively.

Pressuriser

Figure 3 shows the position of the pressuriser in the upper head of the RPV. Figure 8 gives more detail on its layout and operation.

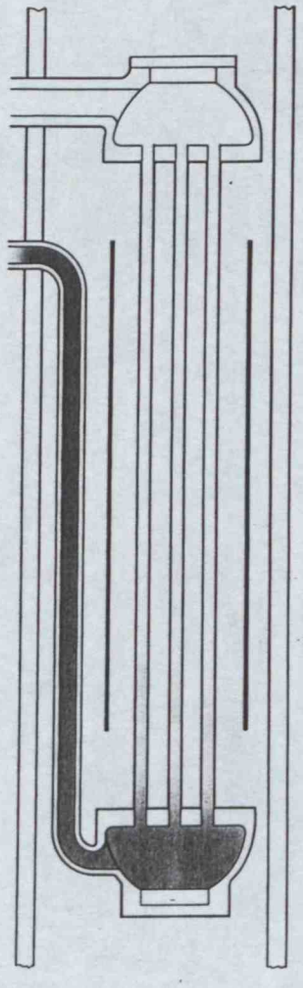
The pressuriser maintains primary circuit pressure by heating (or cooling) a steam bubble at the top of the upper head. Unlike standard designs there are no external spray lines or surge lines. Spray and surge behaviour is induced entirely by primary circuit volume changes and is therefore entirely passive. Pressuriser and primary circuit volumes are interconnected by vortex diodes in the lower dividing membrane to ensure that inflow comes through spray nozzles into the steam region and outflow is from the water region.

The normal water level will be such as to give 40 m^3 of space for both heated water and the steam bubble. This is very much larger (in terms of specific volume/power ratio) than standard designs and comparative figures are again given in table 1.

Reactor coolant pumps

The pumps are of the sealed (ie glandless) type with added inertia to increase pump rundown time. With the primary water level lowered, they can be removed radially for servicing or replacement without having to remove the vessel closure head. Space is provided for this operation within the header gallery portion of the below ground level primary containment. In order to allow for continued removal of decay heat through the steam generators by natural circulation of the primary water with a lowered water level, vortex diodes are

Figure 6. Flow pathways in the steam generator



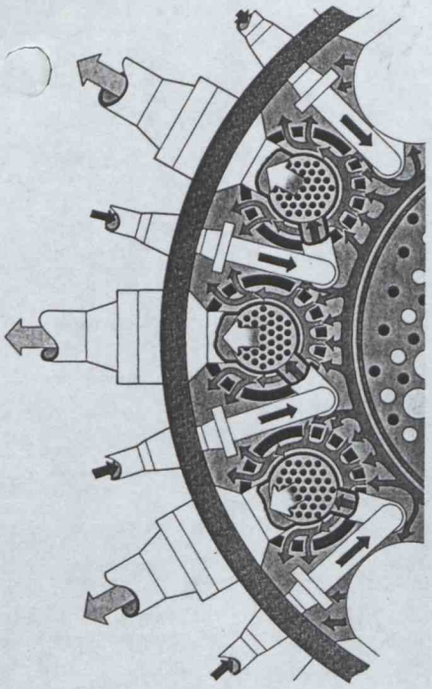


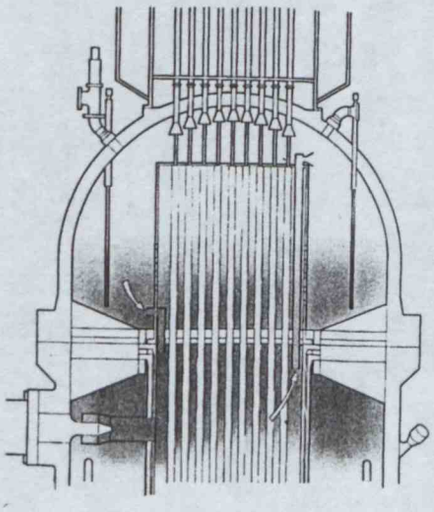
Figure 7. Flow pathways in the steam generator upper head region

provided in the chimney wall below pump level which permits pump bypass flowpaths.

With a 50 Hz supply, the pump speed is 1750 rev/min with a maximum power of 1100 kW/pump. Figure 9 gives a detailed schematic view of the flowpath and mounting arrangements for the pumps.

The steam produced in the steam generators is used to drive the turbogenerator in just the same way as in standard plant. There are some differences associated with the once through design (eg the need for crud control and the superheat capability of the steam generators) but these are not significant features. For completeness,

Figure 8. The integral pressuriser arrangement



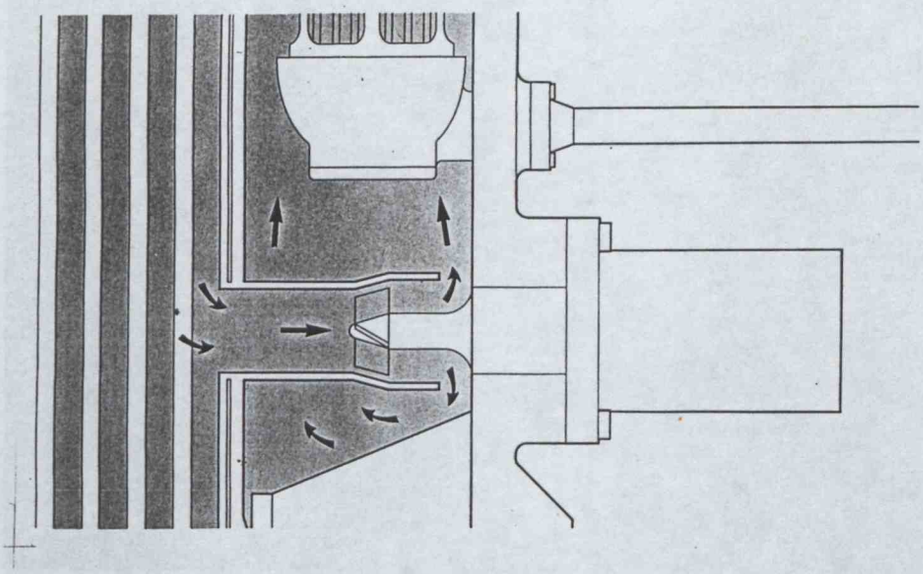


Figure 9. Flow pathway and mounting arrangements for the pumps

the secondary steam circuit is shown in figure 10.

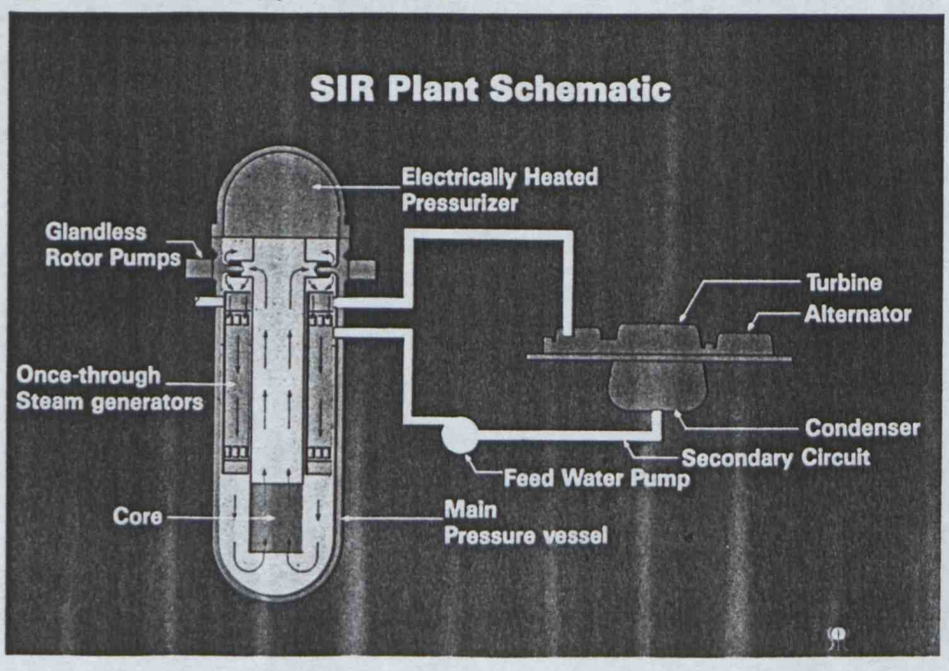
Safety features and systems

One of the principal advantages of the Sir design lies in the robustness of the core and primary circuit to fluctuations in both power and flow. Table 1 shows that for all of the important core and thermal performance parameters the design is superior to typical large PWRs. Thus, with a low power density core, the fuel (which is of a standard type reactor design) can sustain up to 115 per cent overpower before its operating margins are exceeded. This is coupled with a very strong negative moderator temperature coefficient and means that for all transient events the reactor is essentially self regulating within the 115 per cent margin. Furthermore, undercooling transients are mitigated by the low coolant inventory on the secondary side and the negative power coefficient. We believe there are *no* transient events which threaten the core and hence no diverse emergency shutdown system should be necessary.

All reactors require systems to remove decay heat and to provide an emergency source of coolant. Sir is no different in this respect but, because the demands on these systems are much reduced, their needs can be satisfied more simply. Figure 11 shows in outline the basic safety systems on the reactor.

• *Emergency core cooling system (ECCS)*. Elimination of all large primary circuit pipework outside the vessel has been discussed earlier. From the safety systems point of view this has very important ramifications. The largest pipebreak in the primary circuit is 70 mm diameter. (This is the pipe supplying the chemical volume and control system.) Thus there is no possibility of rapid

Figure 10. The secondary side steam circuit



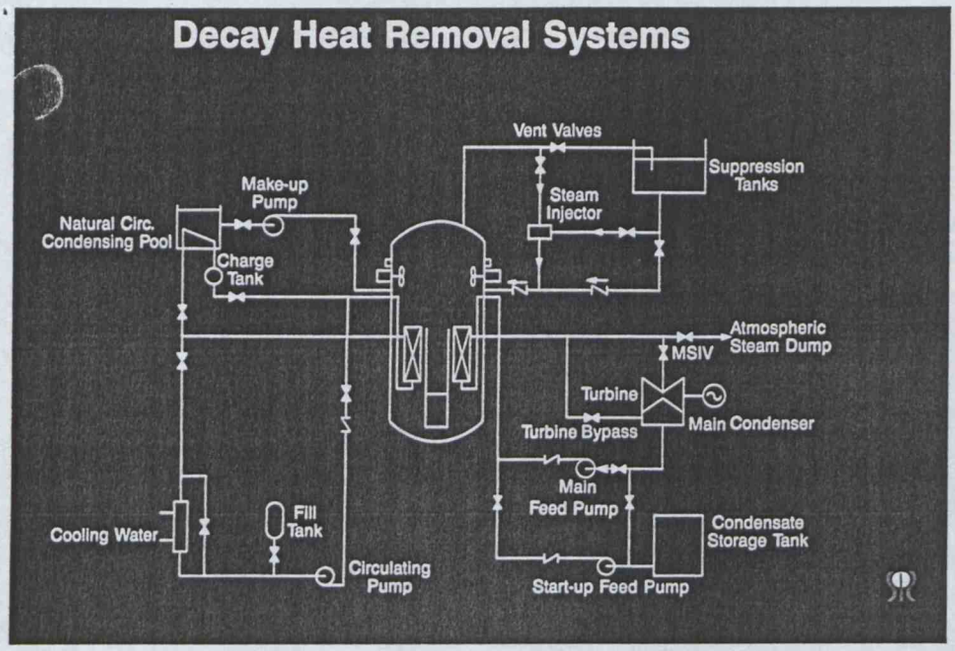


Figure 11. Circuit diagram showing decay heat and emergency injection systems

emptying of the main vessel requiring massive and early injection of ECCS water. Furthermore, the *lowest* penetration of the vessel is 8·9 m *above* the core. Hence there remains a large head of water to cover the core. Additionally, loss of steam through such a break is a far more efficient way of removing energy than by losing solid water. All of this leads to a much reduced requirement for emergency core cooling. There is no requirement for a low head high volume system and high pressure injection can be provided for by a completely passive steam injector which uses primary side steam and obtains its water supply from the containment pressure suppression pools. These are above the vessel and so, if the system is depressurised, coolant flow can be guaranteed by gravity drain. Therefore we have an emergency coolant injection system which is simple, completely passive and of low capacity requirement.

• *Decay heat removal.* Figure 11 also shows the principal connections for the decay heat removal circuits. Normally, when cooling down for maintenance and refuelling, the steam generators with turbine bypass are used and heat is rejected through the condensers. This is shown by the magenta circuit in figure 11. This can be achieved by natural circulation on the primary side but requires feed pumps and other equipment on the secondary side. If the temperature and steam pressure are too low for this mode of cooling, then heat is removed using water circulated and cooled by the component cooling water system. Should there be no ac power available, heat is removed by a closed cycle, natural convection, boiling and condensing system which only requires battery power to operate the initiation valves. The heat sink for the system is sized to provide a minimum of 72 hours' heat removal without operator intervention. Decay heat removal is also available without using the steam generators at all. This uses the safety relief valve lines and containment pressure suppression tanks.

In summary, we can say that decay heat removal is provided for by active, active/passive and totally passive systems which are both redundant and diverse. In this, the decay removal systems show the features we would expect to have on a next generation plant.

Containment and its safety systems

The possibility that one of the large primary coolant pipes in a standard PWR design might fracture has determined their requirements for containment. If an instantaneous fracture of the 30" dia main coolant pipes was to occur, then the contents of the primary circuit would rapidly be blown down, and this calls for a large strong building to contain it. The so called large dry containment is typical of standard PWR plant.

For Sir, we have no equivalent to the large break and can take a different route to containment design. In many ways the integral nature of Sir gives it features more akin to the direct cycle boiling water reactors in terms of its containment requirements. The maximum pipebreak is small, hence the rate of pressurisation is small. Energy can be removed using a simple pressure suppression concept in which steam is condensed in a large pool of water. In order to take full advantage of the small size of Sir the pressure suppression system is contained in steel tanks. There are eight of them and their positions are shown in the 3D cutaway drawing in figure 12. This system has a number of advantages:

• using steel tanks and enhancing the surface to volume ratio by having eight of them means that heat can be rejected via natural circulation. The principles of the flowpaths are shown in figure 13. This allows for 72 hours of heat removal with no need for operator intervention;

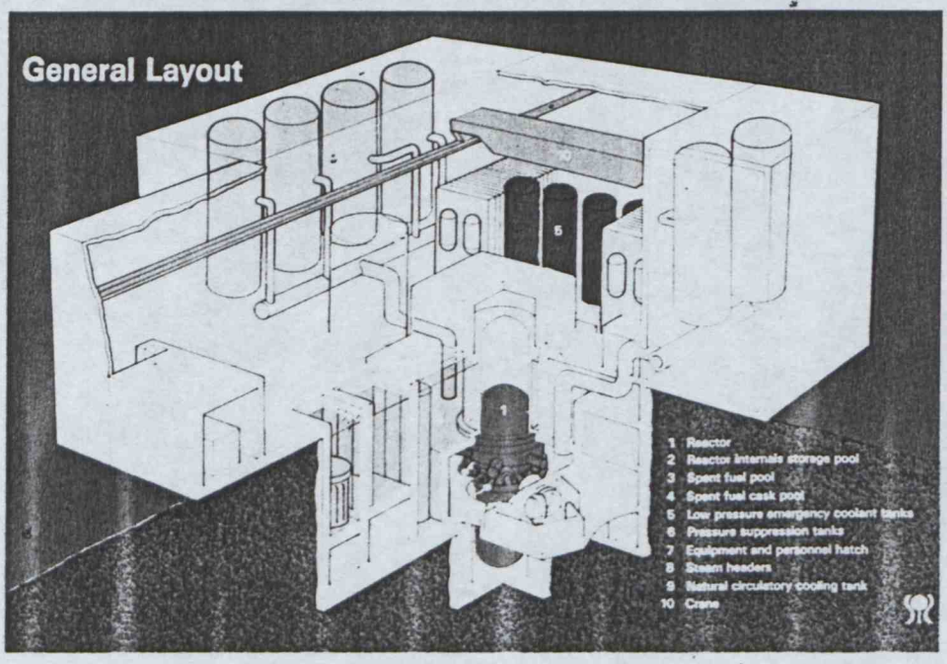
• the pressure suppression pools act as scrubbers for any fission products which may be in the steam, thus providing an effective filter;

• steel tanks can be guaranteed to be leak tight much more easily than lined concrete structures with many penetrations;

• the steel tanks are sized for transportability, hence adding to the overall constructibility of the plant.

A summary of all the technical data for the plant is given in table 2.

Figure 12. 3D cutaway drawing of the containment arrangements for the Sir



Costs

It is quite clear that no matter how appealing technically the Sir design might be, it will not get built unless it is an economic proposition. There is no doubt that this is the most contentious and commercially sensitive issue relating to any new design.

The costs of any electricity generating plant can be broken down into three main parts: its capital costs; fuel; and the interest charges, particularly interest during construction (IDC).

For all nuclear plant it is capital and IDC which dominate fuel costs. In the Sir design no one item can be identified as being the dominant reason why its costs are competitive with larger plant. However, it is very important to bear in mind that Sir approaches the PWR concept from a completely new arrangement of components and hence we are not simply scaling down one of the traditional designs. What happens when we scale up Sir is discussed later.

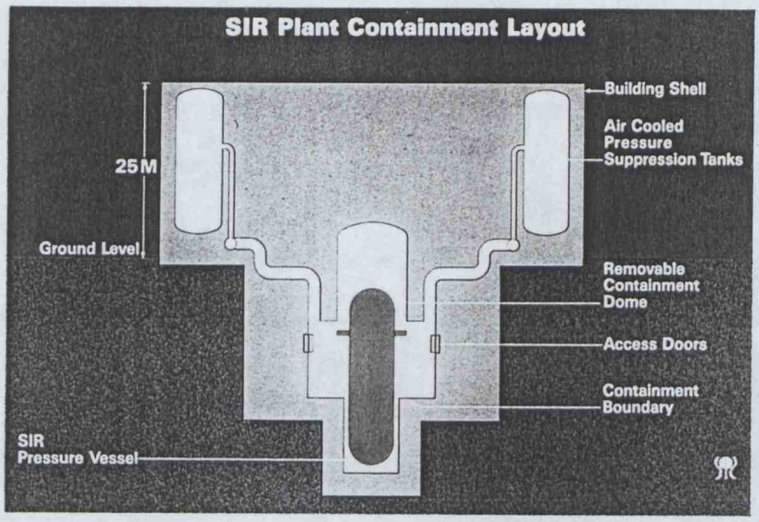


Figure 13. Natural circulation cooling of the containment pressure suppression tanks

Cost savings for Sir are achieved by:

• *Modularisation.* All the principal components – RPV, steam generators, pumps etc – come in modules and are simply plugged in on site. There is a very much reduced on-site requirement for nuclear grade welding etc;

• *Factory fabrication.* All Sir primary circuit components are built in a factory where full quality control and production line techniques can be used. Even a significant fraction of the containment structure will be built in this way;

• *Speed of construction on site.* Only the reactor cavity and pressure suppression part of containment is nuclear grade the remaining plant is the same as in any power station. By timing the delivery of major components to the site, we will achieve a construction schedule of 36 months. Not only does this reduce the IDC, it also offers a rapid revenue stream for potential investors.

All these features contribute to cost savings and we calculate that a series-ordered Sir power station would be very competitive with the larger units currently being built.

Flexibility

The layout of a single reactor Sir power station is shown in figure 12. This has been the basis of our cost calculations and siting requirements in the UK. However, we believe that the market in the USA will be more favourably inclined to 600 MWe or so as the standard plant capacity. A design has therefore been produced for a twin unit plant two reactors driving a single turbine. This offers a number of advantageous features, not least considerable cost savings.

Having decided on a quantum of generating capacity of 300 MWe, we can now claim economies of scale on that basic unit. Thus, while the single unit plant has achieved its economic targets by using innovative design, we can go forward from there with even more favourable designs. Figure 14 gives an impression of what a four-unit (1200 MWe) plant might look like. Of course, any size which is a multiple of 300 MWe can be provided.

Table 2. Basic parameters for the Sir system

Plant data	
Design lifetime	60 years
Power output (design)	320 MWe
Reactor power	1000 MWth
Reactor type	Pressurised water reactor (PWR)
Plant style	Integral primary circuit
Primary circuit	
Design pressure	19·4 MPa (194 bar)
Operating pressure	15·5 MPa (155 bar)
Coolant flow	7500 kg/s (7·38 t/s)
Core inlet temperature	295°C (563°F)
Core outlet temperature	318°C (604°F)
Reactor core	
Moderator	Light water
Fuel	Low enriched UO_2
Fuel enrichment	3·3 – 4·0 per cent
Reactivity control	Fuel loading, burnable poison, control element assemblies, no soluble boron
Clad material	Zircaloy–4
Power density	55 kW/litre
Minimum DNBR	2·6
Refuel cycle	24 months
Steam generators (SGs)	
Number	12
Type	Modular once through
Steam temperature	298°C (568°F)
Steam pressure	5·5 MPa (55 bar)
Superheat	28°C (82·4°F)
Feedwater temperature	224°C (435°F)
Feedwater flow	516 kg/s (1138 lb/s)
Tube bundle length	8·5 m (27 ft 10 in)
Heat transfer area	11 140 m² (13 323 sq.yards)
Material	Inconel 690
Pressuriser	
Type	Integral with reactor vessel (in head)
Volume	80 m³ (2825 ft³)
Reactor coolant pumps	
Number	6
Type	Glandless, wet winding
Power (design)	1100 kW
Operating power	700 kW
Instrumentation and control	
Control complex	Based on CE nuplex 80+™
Containment	
Type	Passive, pressure suppression
Safety systems	
Decay heat removal	Passive, through SGs using natural convection boiling/condensing cycle
Emergency cooling injection	Passive, steam injectors powered by pressuriser steam
Construction schedule	
Site work to first concrete	6 months
First concrete to commercial operation	30 months
Order to commercial operation	54 months

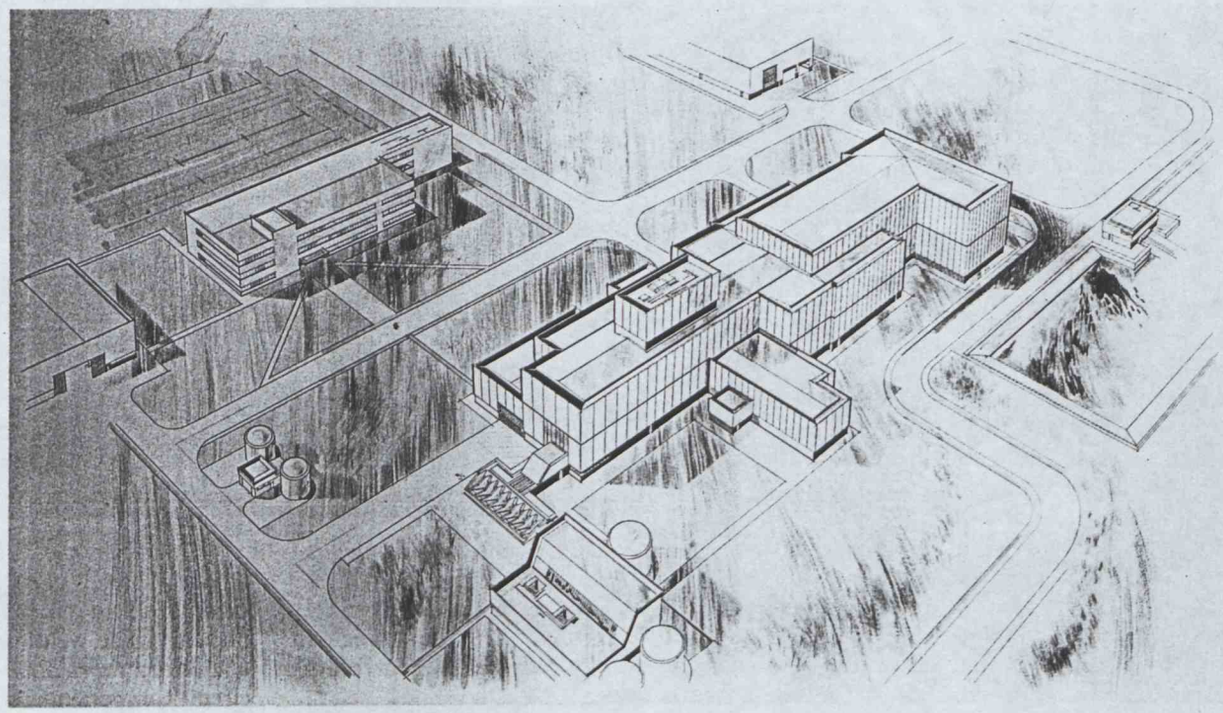


Figure 14. Layout for a potential four unit 1200 MWe Sir power station

Licensability and public acceptability

One of the principal aims of the Sir project is to provide a design which clearly tackles those areas which have caused concern particularly in the public domain. We cannot say whether this design will be accepted, although the press coverage so far has been very favourable. However, there are features of this design which we believe still address public concerns. These include:

- very much reduced dependence on operators in responding to out of normal conditions;
- the use of large thermal inertia to damp down the response time of the reactor;
- a smaller plant which can be located on sites with very little environmental impact;
- less disruption of local communities during-construction;
- a plant that is easier to decommission at the end of its life.

Such qualitative statements as these have to be presented in a much more quantitative and formal way to the licensing authorities. As yet we have not submitted the Sir design to either the UK Nuclear Installations Inspectorate (NII) or the US Nuclear Regulatory Commission (USNRC). We cannot do this until there is sufficient information on the plant and the potential site for them to make a professional judgement. However, we have used design targets which, we believe, will lead to a licensable design.

The requirements are slightly different in the USA and the UK, but generally speaking the principles to be followed for advanced designs are convergent, rather than divergent. However, in neither country are there design criteria for advanced reactors which we can adopt and guarantee licensability.

There are activities in this area. For example, the Electric Power Research Institute in the USA is producing a massive guidelines document for next generation plant. This will be most useful in giving a yardstick against which to judge Sir. At the end of the day, though, it will be regulators who will have to decide if what Sir offers lives up to their expectations.

At the end of the day, . . . it will be regulators who will have to decide if what Sir offers lives up to their expectations.

Prospects for the future

We have two parallel and integrated activities. The first is to develop a design capable of generic licensing in the USA. The USNRC is introducing a licensing method whereby a design can be given the official stamp of approval in a general way, and then only local site specific matters need to be considered for each plant project. In this way, it is hoped that the current bottleneck in US licensing will be broken. The goal is a design certified by the mid 1990s.

In the UK we hope to be able to press forward faster with a plant construction project with the backing of parts of the ESI and the UK nuclear industry. The Atomic Energy Authority has proposed the Winfrith site as a location for unit 1, as the site's infrastructure is already available to cope with a plant of this size.

Furthermore, it is in a geographical region where electricity demand is high (around Bournemouth/Poole) and the power is needed in the area.

Summary

In attempting to design a new reactor, the four partners set themselves three principal goals:

- it must be economic;
- it must use existing technology;
- it must have the safety features expected of an advanced plant.

We believe we have met the first criterion by innovative design, use of modern manufacturing techniques and speed of construction. Multiple unit plants show significant economies of scale, but baselined to a single 300 MWe unit which is itself economic when compared to present designs.

The design relies entirely on components, materials, control systems and fabrication techniques which are well established and proven. What is new is that they have all been brought together in this way for the first time. There is no requirement for a prototype reactor, or for a long development programme.

The safety features of the plant reflect the lessons learned in recent years from accidents and near accidents and from the intensive technical and public debates which they have spawned. We believe we have covered all the necessary aspects of safety but this is an area where we will continue to refine and update the design.

Acknowledgement

The author wishes to thank Dr Ian Gibson of AEE Winfrith, Dr Steven Hall of SRD and Dr John Caisley of Harwell for their assistance in writing this article. He gratefully acknowledges the assistance of Rolls-Royce and Associates in the preparation of photographs. ■

10 JUL 1989

R F.

c- Mr. Barrows

CABINET OFFICE

70 Whitehall London SW1A 2AS
01-270 0101

From the Secretary of the Cabinet and Head of the Home Civil Service

Sir Robin Butler KCB CVO

Ref. A089/1841

7 July 1989

Dear Geoffrey,

Thank you for your letter of 26 May about your search for a Director General for the British Committee of the World Environmental Conference.

Having made some enquiries I can suggest three people who have expressed an interest in the post. In alphabetical order they are:-

David A EVEREST (62) who retired in 1986 as Chief Scientist, Environmental Protection Group and Director of Science Research Policy in the Department of the Environment.

Home Address: Talland, Chorleywood Road, Chorleywood, Herts WD3 4SR. (Telephone 0923 773253).

John PALMER (60) who has just retired as a Deputy Secretary in the Department of Transport. His earlier career was in the Department of the Environment and its predecessor the Ministry of Housing and Local Government.

Home Address: 2 The Hermitage, Richmond, Surrey TW10 6SH. (Telephone 01 940 6536).

(William) John WILBERFORCE (59) retired in July 1988 as High Commissioner in Cyprus after a Diplomatic Service career.

Home Address: Markington Hall, Harrogate, N.Yorks. (Telephone Ripon 87356).

/All three have been

TEMPORARILY RETAINED J. Lyon 1/8/2016

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All three have been told that their names are being passed to you and that you will get in touch with them. Extracts from Who's Who are attached.

John Palmer has recently returned from Moscow where he was attending an international conference of the International Railways Congress Association of which he is a Vice President.

If you need any further advice you may care to have a word with Dr John Hemming, Director and Secretary of the Royal Geographical Society. I understand that he would be happy to discuss with you possible candidates in the environmental field. His office telephone numbers are 01-589 0648 and 01-637 2400.

I hope that this is helpful.

Yours ever,

Robin

WHO'S WHO EXTRACT 1989

EVEREST, David Anthony, PhD; FRSC; Visiting Research Fellow, University of East Anglia, since 1986; Research Associate, UK Centre for Economic and Environmental Development, since 1987; *b* 18 Sept. 1926; *s* of George Charles and Ada Bertha Everest; *m* 1956, Audrey Pauline (*née* Sheldrick); three *s*. *Educ*: John Lyon Sch., Harrow; University Coll. London (BSc, PhD). Lecturer in Chemistry, Battersea Polytechnic, 1949–56; Sen. Scientific Officer, 1956–58; PSO, 1958–64; National Chemical Laboratory; SPSO, 1964–70; Dep. Chief Scientific Officer, 1970–77, National Physical Laboratory; DCSO, RTP Div., Dept of Industry, 1977–79; Chief Scientist, Environmental Protection Gp, 1979–86, and Dir of Sci. Res. Policy, 1983–86, DoE. *Publications*: Chemistry of Beryllium, 1962; section on Beryllium in Comprehensive Inorganic Chemistry, 1972; papers in Inorganic Chemistry, Extractive Metallurgy and Material Science. *Recreations*: astronomy, reading, walking. *Address*: Tailand, Chorleywood Road, Chorleywood, Herts WD3 4ER. *T*: Rickmansworth 773253.

PALMER, John, CB 1986; a Deputy Secretary, Department of Transport, 1982–88; *b* 13 Nov. 1925; 2nd *s* of late William Nathaniel Palmer and Grace Dorothy May Palmer (*née* Procter); *m* 1958, Lviane Martne Jeanjean, *o d* of René Jeanjean and Jeanne Jeanjean (*née* Larrouy); two *d*. *Educ*: Heath Grammar Sch., Halifax; The Queen's Coll., Oxford (1st Cl. Hons). Entered Min. of Housing and Local Govt, 1952; Cabinet Office, 1963–65; Asst Sec., 1965; Under Secretary: DoE, 1971; Dept of Transport, 1976–82. *Club*: United Oxford & Cambridge University.

WILBERFORCE, William John Antony, CMG 1981; HM Diplomatic Service, retired; *b* 3 Jan. 1930; *s* of late Lt-Col W. B. Wilberforce and Cecilia (*née* Dormer); *m* 1953, Laura Lyon, *d* of late Howard Sykes, Englewood, NJ; one *s* two *d*. *Educ*: Ampleforth; Christ Church, Oxford. Army National Service, 2nd Lieut KOYLI, 1948–49. HM Foreign Service, 1953; served: Oslo, 1955–57; Berlin, 1957–59; Ankara, 1962–64; Abidjan, 1964–67; Asst Head of UN (Econ. and Social) Dept, 1967–70, and of Southern European Dept, 1970–72; Counsellor, 1972–74, and Head of Chancery, 1974–75, Washington; Hd of Defence Dept, FCO, 1975–78; Asst Under-Sec., RCDS, 1979; Leader of UK Delegn to Madrid Conf. on Security and Cooperation in Europe Review Meeting, with rank of Ambassador, 1980–82; High Comr in Cyprus, 1982–88; Hon. DHum Wilberforce, 1973. *Recreations*: the turf, travel, gardening. *Address*: Markington Hall, Harrogate, N Yorks. *T*: Ripon 87356. *Club*: Athenæum.

SECRETARY OF STATE FOR THE ENVIRONMENT

2 MARSHAM STREET
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

CONFIDENTIAL

Charles Powell Esq
Private Secretary
10 Downing Street
LONDON SW1A 2AA

4 July 1989

Dear Charles

Thank you for your letter of 13 June to Roger Bright enclosing a copy of a message from President Bush to the Prime Minister about clean air policies in the United States.

We have learned that - apart from telephoning Prime Minister Mulroney - the President has written only to Mrs Thatcher and to President Mitterand, the latter presumably in his capacity as President of the Council of Ministers.

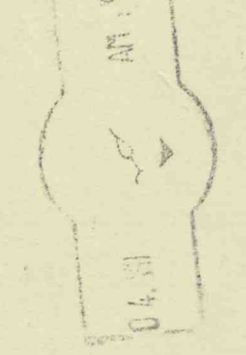
We are sure that the Prime Minister will wish to respond warmly to this message from the President. We are putting together some notes and a draft reply which we hope to let you have in the next few days.

Yours

CES Bush

KATE BUSH
Private Secretary

ENV AFFAIRS : Acid Rain Pt II



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bc = PC

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

3 July 1989

Dear Roger.

GLOBAL ENVIRONMENT: ECONOMIC ISSUES

Thank you for your letter of 30 June, covering a paper for the Prime Minister on the economic aspects of international environmental issues. The Prime Minister thought it was a good paper, although with a bit too much jargon in places. She suggests one or two amendments as follows:

- paragraph 3.2, fifth and sixth sentences to read: "In these circumstances, it is better to anticipate the risk with corrective policies: the Montreal Protocol designed to phase out the use of CFCs is a case in point. However, to the extent that environmental damage has already arisen, there may be no alternative to policies which adapt to the new situation: the response to sea level rise is a striking example."

- subheading to paragraph 3.4 to read: "Future Generations".

- paragraph 4.4 last sentence for "preserve a level playing field" substitute "provide a fair basis".

I should be grateful if a revised version could be produced with these changes. I do not think that the Prime Minister has any specific use in mind for the paper: it will serve as a very useful quarry for arguments.

I am copying this letter to Alex Allan (H.M. Treasury), Stephen Wall (Foreign and Commonwealth Office), Neil Thornton (Department of Trade and Industry), Myles Wickstead (Overseas Development Administration), Stephen Haddrill (Department of Energy), Roy Griffins (Department of Transport), Shirley Stagg (Ministry of Agriculture, Fisheries and Food), Trevor Woolley (Cabinet Office) and Nigel Wicks (H.M. Treasury).

Yours sincerely,

C. D. POWELL

Roger Bright, Esq.,
Department of the Environment.

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cc PC
RA

2 MARSHAM STREET (2)
LONDON SW1P 3EB
01-276 3000

My ref:

Your ref:

Rt Hon

There's rather a lot of jargon. I wonder if the G7 will all understand

I have done 2 or 3 corrections where I thought the jargon was unclear. Otherwise it is good

Charles Powell Esq
Private Secretary to
The Prime Minister
10 Downing Street
LONDON
SW1A 2AA

30 June 1989

Dear Charles

GLOBAL ENVIRONMENT: ECONOMIC ISSUES PAPER FOR THE PRIME MINISTER

At her meeting on global climate on 19 April the Prime Minister called for 'further work on the economic aspects of international environmental issues to help prepare a well researched UK paper in good time for the Economic Summit' in July. The Department of the Environment with ODA were put in the lead, with support from other Departments.

I attach a paper that has been drafted by officials, on this basis. My Secretary of State and the Minister for Overseas Development have seen it and are content for it to be sent forward.

Copies of this letter and attachment go to Alex Allen (Treasury), Stephen Wall (FCO), Neil Thornton (DTI), Myles Wickstead (ODA), Stephen Haddrill (DEn), Roy Griffins (DTp), Shirley Stagg (MAFF), Trevor Wooley (Sir Robin Butler's office) and to Nigel Wicks at the Treasury.

Yours sincerely

Roger Bright

R BRIGHT
Private Secretary

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THE GLOBAL ENVIRONMENT: ECONOMIC ISSUES

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THE GLOBAL ENVIRONMENT: ECONOMIC ISSUES

1. INTRODUCTION

1.1 There are a number of major global environmental concerns on which the need for urgent international action is now widely recognised. These include, inter alia, climate change and global warming (see Annex 1); CFCs and the ozone layer (see Annex 2); and deforestation, desertification and loss of genetic diversity (see Annex 3). Acid rain and marine pollution issues are further examples. Such concerns raise difficult scientific, technological and economic issues, not least of analysis and policy. The more advanced industrialised nations have an essential role to play in addressing these challenges. Developing countries are deeply affected by all of them. This paper addresses some of the key economic issues involved.

1.2 Explicitly or implicitly decisions are continually being made about trade offs between the environment and economic development. A major purpose of economic analysis is to try to ensure that such decisions are fully informed about the economic value and functions of the environmental assets affected. This is essential if priorities in resource use are to be established and assessed, and a proper balance struck between policies of prevention and adaptation. Economic progress need not be at the expense of the environment. Indeed, in many developing countries, the prospects for long term economic development depend on the careful management of natural resources such as pasture, water, fertile soil and forest. Environmentally sustainable development is now recognised as both possible and essential.

2. ECONOMIC ISSUES

Common property resources: the global commons

2.1 Industrialised countries are dependent for their raw material and energy on the international exploitation of forests, fisheries, fossil fuels and mineral reserves. Many of these resources -tropical and temperate forests, coastal and shelf fisheries, mineral and fossil fuel reserves - fall within or across national boundaries. The countries having sovereignty over them exercise exclusive property rights over them and can therefore determine whether they are exploited or conserved, although a major factor in the pace of exploitation will be international demand.

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2.2 For resources that lie outside national boundaries, such as ocean fisheries, no country has exclusive property rights and these resources may therefore be seen as common property resources - the global commons. In the absence of international agreement to ensure cooperation among all users, no country has a strong incentive to manage such common property resources sustainably. On the contrary individual countries will tend to exploit such resources, possibly regardless of the long term consequences.

2.3 Economic progress has also become dependent on the atmosphere and stratosphere and oceans for disposing of pollutants. There is a widely recognised need to control or limit the use of this capacity through international agreement, since individual countries do not face the costs of using the assimilative capacity of the environment until it becomes overloaded. Only when pollution gives rise to threshold effects - changes in climate, ozone depletion, pollution hazards and so on - do the costs of thus treating the global commons become apparent. At this point, everyone has to face the consequences regardless of whether they are major polluters or not.

2.4 To avoid this problem there is a need to place proper values on the services provided by the environment and to ensure that users are faced with the true costs involved. Many of these services are currently provided at zero price simply because no market exists in which their true values can be revealed through the acts of buying and selling. Obvious examples are the services provided by the atmosphere and the oceans as pollution 'sinks'. If something is provided free, more of it will be demanded than if it is priced. The danger is that this greater level of demand will not be matched by a sustainable supply. The stock of natural resources should ideally be analysed in a manner analogous to the way that the stock of man-made capital is in national and international accounting systems, but more progress in developing and applying this principle is needed.

Sustainable development

2.5 The Brundtland report established the concept of sustainable development as the basis for integrating economic and environmental policy. The message of Brundtland is that it is possible to achieve a path of economic development which meets the needs of the present without compromising the chances of future generations to meet their own needs. The implication is that the present generation should leave future generations a wealth inheritance - a stock of knowledge and understanding, of technology, of man-

made capital and, last but not least, of environmental assets - no less than that inherited by the present generation. Consideration is currently being given by the UN Statistical Office to the possibility of modifying the present national accounting conventions to accommodate sustainability concerns. The issues involved in translating the concept of sustainable development into operational language are being explored by Professor Pearce in research undertaken for UK Department of the Environment.

2.6 It is desirable that the Brundtland concept of sustainable development should be translated into practice, measured and progress towards its achievement assessed. The relevance of resource accounting procedures in monitoring progress towards sustainable development is now widely recognised and is the subject of OECD and UNECE work. This involves assembling statistics on the stocks and flows of natural resources and drawing up balance sheets setting supply against the rate of use.

3. GENERAL AND METHODOLOGICAL ISSUES

Anticipatory versus adaptive policies

3.1 A feature of environmental policy making is a high degree of uncertainty about the precise extent of the environmental damage caused by economic activity. In some cases - eg the extinction of wildlife species through habitat destruction - it is irreversible. In other cases - eg the damage to the ozone layer caused by CFCs - it is potentially catastrophic. In many cases, of which climate change is an obvious example, despite major scientific research efforts - and it is important that countries examine the science thoroughly - there is a high degree of uncertainty about the extent or even the nature of environmental damage.

3.2 There are no firm rules for choosing which policy to adopt in the face of uncertainty. But most people are risk averse: they do not like uncertainty. Most people would also argue that taking risks is not worthwhile when the negative 'pay off' - what happens if they lose - is very large. Some current environmental problems risk very large losses. In these circumstances a risk averse strategy favours anticipatory rather than adaptive environmental policy; the Montreal Protocol designed to phase out the use of CFCs is a case in point. However, to the extent that environmental damage has already arisen, there may be no alternative to adaptive policies and the response to sea level rise is a striking example. Clearly it is important that an early

assessment of the relative costs of prevention and adaptation is made. Measurement of the costs of various forms of environmental degradation and of policy options should therefore be one of the main objectives of research.

Measuring environmental benefits

3.3 It is important to try to place monetary values on environmental gains and losses partly for the reasons outlined in para 2.4. For analytical purposes cost benefit analysis (CBA) makes operational the simple, and rational, idea that decisions should be based on some weighing up of the advantages and disadvantages of an action. CBA is the only technique of evaluation which explicitly makes the effort to compare like with like using a single measuring rod of costs and benefits, ie money. Techniques of research into 'willingness to pay' for environmental improvement are now well established and have an important part to play in improving the estimation of benefits in money terms. However even where the process of environmental degradation is well understood, an agreed assessment, in monetary terms, of the likely environmental benefits of policy options may not be possible. In these circumstances policy evaluation can nevertheless make good use of cost effectiveness analysis - the determination of the most cost effective way of achieving an environmental quality standard - for example the effectiveness of afforestation as against investment in energy efficiency as a means of removing a given amount of carbon dioxide from the atmosphere.

Intergenerational dimensions Future Generations

3.4 There is considerable uncertainty about how best to value the interests of future generations in economic appraisal. Sustainable development effectively involves compensating future generations for losses they might otherwise incur because of action by the present generation. As has been argued above in para 2.5, to ensure that future generations have the capability to meet their needs, it is essential to leave the next generation a stock of wealth no less than that inherited by the present generation. This requirement is likely to feature in environmental economic research programmes as they develop.

4. ECONOMIC PRINCIPLES FOR POLICY FORMULATION

The need for international regulation

4.1 When governments enter into international negotiations in order, for example, to protect the ozone layer by regulating the production of CFCs or to reduce pollution in the North Sea by regulating dumping of pollutants, those negotiations involve bargaining designed to ensure that each country derives a fair share of the expected benefits and incurs a fair share of the anticipated costs. This implies recognition of the fact that the use of the ozone layer and of the North Sea need to be regulated if these resources are to be saved from destruction. Previously unlimited rights to use, particularly as regard pollution, are now being restricted and it is no accident that international organisations, such as OECD, UNECE and UNEP, are playing an ever more important role in the process. The reason for the restrictions is the recognition that the capacity of the ozone layer to absorb CFCs, and of the North Sea to absorb a range of pollutants is limited. They are therefore scarce resources and free access to them by all, including those with no responsibility for their conservation - the so-called free rider problem - is increasingly seen as intolerable.

4.2 The nature and scale of some problems requires that we seek internationally agreed measures to reduce regional and global pollution, and raise public awareness of the need for action. Unilateral action in such cases is ineffective and can easily become self defeating. Pollution control brings costs and unless international agreements are reached on common goals or standards the measures necessary to reduce pollution may make individual countries industry uncompetitive in world markets if these countries alone incur these costs. Every country needs to participate in the regulation process.

The Polluter Pays Principle

4.3 One way of dealing with pollution problems is through the Polluter Pays Principle (PPP). This ensures that the costs of pollution fall upon the economic agent causing that pollution, and would, if consistently applied, avoid the free rider problem. Application of PPP has the advantage that it establishes a clear framework of property rights in favour of those suffering from the effects of pollution. PPP is already put to good use for the

purposes of national environmental policy. There are however difficulties in applying the principle at international level.

4.4 These difficulties may be illustrated by reference to the analogous issue of free trade. Free trade policies maximise global welfare and national interest by allowing resources to be more effectively allocated, in line with underlying comparative advantage and encourage the growth of both the volume of trade and GDP. These objectives are being advanced both through the multilateral negotiations on reducing tariffs in the current GATT round and through the completion of the internal EC market. For the same reasons elimination through multilateral negotiations of export finance subsidies will ~~preserve~~ provide a ~~level playing field~~ fair basis on which export contracts are awarded according to underlying comparative advantage rather than subsidisation.

level playing field ... everyone would have fairness!

4.5 Conceptually the same approach is relevant to say global climate problems. The objective should be to "internalise" environment costs into the market process of the efficient allocation of resources. An exporter who wins a contract, because his costs do not reflect the wider costs for society of the gases emitted by his processes, has won a contract "unfairly" in exactly the same way as an exporter who has won a contract through a mixed credit provided by his Government. In the latter case the cost of the subsidy has visibly fallen on the country providing it is "internalised" but in the former case the cost is "externalised" to fall on someone else.

Compensation payments

4.6 Whatever the merits of the Polluter Pays Principle, it will be no easy task to apply it between countries on an international basis. It would depend on world wide consent which may take considerable time to achieve. In the meantime, because property rights in pollution rest with the polluter it may be in the interests of third countries & others ~~to~~ pay the polluter to stop. Everyone will be better off if the costs of payment are less than the avoided costs of pollution which would otherwise have occurred (in the paying countries). For this reason, certain countries such as the Netherlands and West Germany are having to contemplate paying East European countries to curtail their emissions of sulphur dioxide.

4.7 In the case of the Eastern bloc, there are obvious arguments against these kind of payment arrangements, not least that it should be in their own long term interests to address their own environmental problems. On the other

hand, in certain cases such payments may represent a relatively cheap means of persuading these countries to do something about environmental pollution to the benefit of all countries.

Developing countries

4.8 In the case of developing countries, it is necessary to recognise the resource limitations imposed on them by their poverty and that their priorities for this reason give a much greater weight to economic development relating to growth and poverty than global environmental protection. The notion that developed countries should make financial amends to developing countries for past environmental pollution is not acceptable. However, external resources, both concessional aid and commercial investment, have an important part to play in encouraging developing countries to give higher priority to solving their environmental problems and to ensure that priorities for action include things of global as well as local importance. Additional public (and private) resources channelled to developing countries could represent a worthwhile investment in the protection of the global environment to the benefit of all countries.

The framework of international negotiations

4.9 In the international negotiations on climate change ahead, free riders will need to be dealt with, through a combination of possible concessions and inducements. To participate effectively in the negotiations of standards and on the mechanisms for ensuring environmentally sound behaviour, every country needs to be aware of the costs and benefits of different options.

4.10 It is implicit in our stance that we are willing to join other industrial countries in accepting some additional cost in the interests of the world's future. While we must not pay unnecessarily, we should be alive to the possibility that greater benefits may accrue in the future if all countries agree to pay a higher price now. Adopting an anticipatory policy stance would be an investment. An appropriate national negotiating position should logically therefore be based on a medium-term time horizon, which takes account of both costs and benefits over time.

The role of market mechanisms

4.11 Market mechanisms such as charges, taxes and schemes allowing dischargers to trade permits are increasingly being used to complement environmental regulation. They may offer an efficient and cost effective way of achieving environmental standards, or provide a means of influencing environmental behaviour or simply raise money. Examples in the UK include the tax differential on unleaded fuel, waste disposal fees, and schemes in prospect for cost recovery charging with respect to environmental pollution generally. Potentially such mechanisms have a wide application.

4.12 The case of unleaded petrol illustrates the effects of taxes. The tax differential in favour of unleaded petrol in the UK was introduced in order to encourage a switch in consumption from leaded petrol. The impact of the differential can be seen from Table 1. However environmental aspects of petrol consumption go wider than lead. It is now recognised that petrol consumption, as with other fossil fuels, contributes to the greenhouse effect. Petrol tax has served a number of functions during its history from purely revenue raising, to charging for roads and to providing an incentive to reduce consumption when supplies threatened to dry up in the early 1970s. Most topically it can be regarded as a form of carbon tax tending to reduce carbon dioxide (CO2) emissions.

4.13 Emission trading and some forms of pollution charging offer ways of using the market to achieve environmental standards cost effectively. Allowing dischargers to sell or trade the difference between actual and allowed discharges has been extensively tested as an approach to pollution control in the US. The approach has been found to be workable and the US plans more extensive application as described in President Bush's recent new proposals. The benefits of using market mechanisms where they are appropriate to the problem and in line with the national legal and financial characteristics of the country concerned are widely recognised. This is clearly an important area for research.

5. ILLUSTRATIONS OF ECONOMIC ISSUES

The problem of CO2 emissions

5.1 The general problem of climate change and global warming is discussed in Annex 1. Options for reducing emissions of CO2 include:

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(i) Energy conservation - improved insulation; more efficient lighting devices, motors and appliances, and vehicles; improved building and process control; more use of combined heating and power systems (CHP) in industry and services.

(ii) Substitution of alternative fuel in road vehicles - diesel, gas, bio-alcohol and hydrogen; electric vehicles.

(iii) Removal of carbon dioxide from power stations' flues - (thought to be technically feasible).

(iv) Electricity generation from renewable energy sources - bio-fuels, on-shore wind, small scale hydro, tidal energy, geothermal hot dry rocks, solar energy, and wave power.

(v) Electricity generation from nuclear power - (to reduce carbon dioxide emissions in electricity generation).

(vi) Alternative methods of fossil fuel generation - eg substituting gas for coal; more efficient systems of generation.

5.2 Market Mechanisms have a role to play in choosing between these options; the options themselves need to be evaluated for their cost effectiveness. Some will be much more expensive than others per unit of CO2 emission. However it is not obvious that governments, rather than the burners of fossil fuels, are best placed to carry out this evaluation. A tax on fossil fuel consumption would provide an appropriate incentive to economise on its use. Precisely what form those economies take, and who introduces them, can then be left to the market. In designing any carbon tax(es) government will however need to take a view on price elasticities - ie what level of tax would be needed to achieve the desired rate of CO2 emissions. Any such approach must be pursued on an international basis if it is to be effective, and will also need to take account of the characteristics of national energy supplies.

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Energy conservation in developing countries

5.3 Developing countries with 70% of the world's population currently contribute only 30% of total energy consumption. Total energy use including traditional forms such as woodfuel, dung and biomass waste per capita is only one-sixth of OECD levels. Nevertheless, in future the LDC demand for energy is likely to grow at least as fast as their GDP and most forecasts suggest that, by 2020, their energy use could have doubled.

5.4 In developing countries the contribution to global CO2 levels from deforestation is of the same order as that from fossil fuel consumption. Deforestation occurs to accommodate agricultural (which is given added impetus by poverty and population growth) and to meet fuelwood demands as well as through the activities associated with commercial logging. Fossil fuels, particularly coal, are the major inputs for power generation. Electricity generation and distribution are often characterised by poor technical efficiency, high energy losses as well as pricing policies that fail to reflect full economic, let alone environmental costs.

5.5 From an environmental viewpoint the challenges are to use existing energy plant more efficiently, to use energy more economically and to expand capacity in systems which are more environmentally benign. There is no simple answer to these challenges but policy options are likely to include the reform of power tariffs; the introduction of levies on fossil fuels; reduction in generation and transmission losses in existing electricity systems and the installation of best practice fossil fueled and non-fossil fuel capacity.

6. CONCLUSIONS FOR G7

6.1 Management of global common property resources and resource systems requires a coordinated policy response involving cooperation on a global scale. As major users of the world's environmental resources and as the economically most powerful countries, the advanced industrialised countries will have to take the lead in this cooperative effort. In this G7 can play a vital role.

6.2 G7 should also use its economic and financial resources to assist the promotion of sustainable development in developing countries and to encourage them to use more of their own resources to protect their own and the global

environment. This will assist in developing the cooperation between nations with highly unequal resource bases, necessary to protect and conserve the global environment.

6.3 G7 can also give a much needed political impetus to the environmental economics research programmes of international organisations including OECD, the World Bank, United Nations Environment Programme (UNEP), Inter-Governmental Panel on Climate Change (IPCC) and United Nations Economic Commission for Europe (UN/ECE). The protocols for any international climate convention are likely to need economic analysis in their preparation, monitoring and evaluation. This is not simply a matter of applying techniques of cost effectiveness and cost benefit analysis, important though they are, but also of the design of the conventions themselves including the framework of rules and enforcement.

6.4 The aim should be to establish the relative cost effectiveness of different techniques of ameliorating the impact of human activity on the environment. The priorities for international economic research look to be as follows:

(i) The choice between anticipatory and adaptive strategies, particularly in relation to climate change, through assessment of the costs of environmental degradation and policy options.

(ii) The role of market mechanisms as a complement to the regulation of property rights in the global commons.

(iii) The assessment of the effects of global environmental strategies on the economies of national states, including the identification of divergences between national and international interest.

(iv) The cost effectiveness of different techniques of encouraging less developed countries to adopt environmental policies.

(v) Energy policy and its implications for energy pricing and conservation.

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ANNEX 1

CLIMATE CHANGE AND GLOBAL WARMING

Background

1. The temperature of the earth's atmosphere results from an equilibrium between the radiation received from the sun and the radiation emitted by the earth. The sun's radiation is characteristic of a very hot body which tends to be of short wave length, most obviously in the form of visible light. Radiation of the relatively cool earth on the other hand is characteristically of longer wave length, infra red heat radiation. The greenhouse gases (carbon dioxide, methane, CFCs, oxides of nitrogen, and ozone) in the earth's atmosphere affect the equilibrium temperature because they are largely transparent to the incoming, short wave radiation but absorb and re-irradiate some long wave length radiation back to the earth, warming the surface.

2. Over the past century or so there has been a considerable increase in the rate which greenhouse gases have been emitted to the atmosphere. As a result there has been an increase in the atmospheric concentration of these gases. A further contributory factor may be a reduction of the earth's capacity to absorb carbon dioxide consequent upon the rapid destruction of forests. There is little dispute that this build up of greenhouse gases will lead to an increase in global temperatures. The unknown issue is by exactly how much. The consequences of a continuing increase in temperature are summarised in Table 1. They are likely to include a rise in sea level and increased risk of flooding, changes in regional meteorological conditions with effects on agriculture, natural habitats and people's living conditions; and the possibility of an increase in extreme weather events in some regions. Some regions might in fact benefit. Siberia, for example, may become a viable agricultural region with increased rainfall. However, it would be foolhardy to assume the net worldwide result will be a benefit.

3. For the mid-latitude regions of 30 to 60 N, which include the major food growing regions of North America and Europe, rising temperatures would probably have the most serious impact for forest ecosystems, and for irrigated agriculture in the semi-arid areas (eg the American mid-West), which would suffer from higher temperatures and increased drought in summer. Climatic variability has of course always been a major problem for the semi-arid tropical regions (latitudinal band 5° to 35° N and S). Reductions in

precipitation for one or more seasons, which adversely affect agriculture, would be aggravated further by any decline in soil moisture from increased mean temperatures. Also any increased rainfall intensity in the humid tropical regions would mean more tropical storms and flooding, which would affect coastal and river regions and highly erodible soils in upland areas. Thermal expansion of the oceans leading to substantial sea level rises would threaten low lying and coastal regions - such as the flood plains of Bangladesh, the US Eastern seaboard, the Netherlands, and the island countries in the South Pacific and Indian Ocean. These climate changes could pose serious adjustment problems for developed and, especially developing, countries.

The Economic Challenge

4. Two aspects of global warming present particular problems to any analysis of appropriate policy responses: firstly, the unpredictable nature of climatic changes and , secondly, the way in which they magnify the likelihood of so-called 'natural' disasters. Changes in the earth's climate may be sudden or gradual. Coping with sudden changes whose timing and magnitude are unpredictable is clearly a far more difficult matter than coping with a gradual change. Even gradual changes in mean climate or sea level may be manifested as large changes in the risks of extreme events. For example, threats from future sea level rise and salt water intrusion will increase the probability of extreme drought occurrence, whereas existing water resource supply systems are currently, but based on past experience, adjusted to only comparatively moderate fluctuations in precipitation and resultant salt intrusion.

5. These aspects of climate change will need to be incorporated into the part of the work programme of the Inter-Governmental Panel on Climate Change (IPCC) being carried out by the UK Meteorological Office which is aiming to firm up estimates of likely future climate change. They will also need to be carefully considered in analysing policy options.

6. The purpose of such an analysis should be to assess a number of important adaptive and preventative measures for controlling global warming and adaptive measures for limiting the impacts of its effects. This raises an important challenge for economics which has a key role to play in the design of efficient adaptive and preventative measures, and also in achieving an appropriate strategic balance between them.

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7. We are only in the early stages of analysing these issues and work is being progressed under the auspices of IPCC Working Groups. A full assessment of the options is not yet possible. Nevertheless, several points crucial to this analysis are worth highlighting. First, there is clearly a waiting cost for doing nothing now; the best guess is that we are already committed to some global warming in the near future (eg 1.5° to 3.1° C). Thus the longer we do nothing, the higher will be the future costs of forced adaptation and residual effects. The crucial questions are how large is this waiting cost and how fast is it growing over time?

8. Second, there is a high cost attached to a "surprise" of an extreme event suddenly occurring. The unpredictability surrounding the impacts of the greenhouse effect and the possibility of these being extreme argues for avoiding under-estimation of the probabilities involved or being inflexible on assumptions about the timing of events. The standard approach of economics in dealing with uncertainty is to weight the welfare implications of expected outcomes, thus ranking options on the basis of the expected balance between social costs and benefits. This approach is less effective with global warming problems - where there is a small chance of large scale damage from a sudden catastrophe. The tendency of society to be risk averse also lends support to options favouring prevention.

9. The essential policy comparison between prevention and adaptation involves a choice between measures with a low current cost but which may result in greater future costs and investing heavily in the control and reduction of fossil fuel emissions, and also in more sustainable management of tropical forests, in order to reduce those anticipated future costs. Thus a concerted effort to limit the greenhouse effect in advance through, say, reducing carbon dioxide emissions would involve higher relative costs in the present but would avoid some of the costs incurred by forced adaptation and residual impacts in the future. Discounting the costs and benefits of different options to allow for time differences does not offer a useful guide in the case of climate change given the long time periods and the uncertainties involved.

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TABLE 1

ECONOMIC IMPACTS OF CLIMATE CHANGE

	Adaptation Costs	Economic and Environmental Losses
Sea Level Rise	Additional sea defence expenditure in UK and overseas (especially Netherlands, USA, and LDCs). Adaptation of Water Authorities' and industries' effluent outfalls.	Flooding (eg in East Anglia, Netherlands, Bangladesh). Environmental impacts of sea defences. Loss of wetlands. Loss of beaches.
Agriculture	Increased pest control. Adjustment of crops and agricultural practices.	Loss of cropland. Adjustment of outputs, prices and terms of trade. Losses suffered by certain LDCs. Environmental impacts of increased pests and their control.
Water Supply	Extra provision of reservoirs. Extra water pollution control expenditures. Increased charges for water supply and effluents.	Deterioration of river water quality due to reduced river flows.
Buildings	Increased air conditioning. Additional renovation costs to adapt building stock. Extra costs of new materials and techniques.	Higher office temperatures in summer. Deterioration in state of building with new climate conditions.
Forestry	Change to different tree types. Forestry management practices, especially pest controls.	Economic losses to existing forest plantations due to change in climate and increased pests. Loss of old trees now in unsuitable areas (eg Californian Redwoods). Environmental impacts of increased pests and their control
Recreation	Extra costs for sewage treatment and clean up of beaches.	Pressure on beaches. Congestion in tourist areas (eg roads, water).
Nature Conservation		Extinction of Species. Loss of Biodiversity.

NB. No conclusions should be drawn from this table about the relative importance of the impacts listed.

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Annex 2

CFCs AND THE OZONE LAYER

Background

1. The ozone layer is that part of the stratosphere where ozone is most concentrated. Ozone absorbs ultra violet radiation and prevents too much reaching the earth where it has the potential to affect the environment and human health. CFCs and halons have the capacity to destroy ozone. In the stratosphere they are decomposed by sun light to free chlorine or bromine which convert ozone into molecular oxygen. The hole in the ozone layer over the Antarctic is now attributed to the accumulation of CFCs, which are also implicated in ozone depletion over other parts of the globe.

2. Unlike the other major environmental concerns discussed in Annexes 1 and 3, viz climate change and global warming, and deforestation, desertification and the loss of genetic diversity, a well developed and internationally agreed policy on the ozone layer is already in place in the form of the Montreal Protocol. This was signed in September 1987 and entered into force on 1 January 1989. The Protocol enforces a reduction in the production and consumption of the most important CFCs and a freeze on the production and consumption of the major halons. Nearly forty countries, which together account for more than 80% of the global consumption of the regulated CFCs and halons have now ratified the Protocol. Consumption which is not covered by the Protocol is mainly in the newly industrialised countries and other developing countries.

Economic Review of the Montreal Protocol

3. The Protocol provides a mechanism to review the efficiency of the control measures and adjust them accordingly, although the Parties to the Protocol have already made a political commitment to eliminate the production and use of CFCs by the end of the century. Article 6 of the Protocol specifically directs Parties to assess the control measures provided in its Article 2 on the basis of available scientific, environmental, technical and economic information.

4. The terms of reference for the Economic Assessment Panel were set during the science review meeting and the technical workshop convened by UNEP in the Hague in October 1988. The scope of the work was to determine, on the

basis of available information, the economic costs and benefits of [redacted] Protocol measures. This information would then serve to guide the revision of the Protocol foreseen for June 1990. The first Conference of the Parties to the Protocol convened in Helsinki in May 1989 confirmed the establishment and orientation of the Panel. The Panel itself has now met three times: 7 March in Brussels, 21-22 April in Washington DC and 29-30 May in Tokyo.

5. It was intended that a main task of the Economic Assessment Panel should be to draw on the expertise of the Environmental Effects and Technology Review Panels to quantify, as far as possible, the value of the benefits of reductions in ozone depletion and the costs of substitutes and alternatives for CFCs and halons on a global basis. This ambition has been considerably scaled down and the final panel report will concentrate rather on outlining the approach an individual country might take to making these calculations on a national basis. The report will include chapters on CFC and halon consumption, methodology, environmental effects, costs of substitution and alternatives, and technology transfer.

6. Much of the Panel's work is now nearing completion. Early indications are that the report will conclude that the monetary value of the benefits from reducing the use of CFCs/halons will be orders of magnitude greater than the costs of achieving those reductions. The evidence is mounting that the benefits from avoiding ozone depletion would be very large indeed in terms of human life and health and also for plants and animals ecosystems. Several national studies have also concluded that substantial reductions of CFC and halon use are feasible and most of these have concluded that the benefits would be much higher than the costs.

7. The development of new options for replacing CFCs and halons is evolving very rapidly. The report of the Panel is therefore likely to conclude that a static cost analysis based on current knowledge would be likely to over estimate the costs and under estimate the reduction in use achievable in the transition to CFC-free technologies.

8. Global diffusion of CFC replacement technology (including recovery and recycling) is in the interest of both developed and developing countries. Some CFC replacement technologies will be adopted in the course of economic growth, but development assistance will be required in other cases. Also means are needed to prevent the transfer of discarded CFC producing and using technologies to developing countries.

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ANNEX 3

DEFORESTATION

Background

1. Estimates suggest that the tropical forests in the 1980s have been contracting in area by about 12m hectares per year; representing an annual rate of depletion of about 0.6% per annum. Tropical forests are estimated to contain at least 50% of all the earth's species of plants and animals and hundreds of these are being lost every year. In the developing countries deforestation threatens the sustained availability of wood for economic and subsistence purposes. It is the major contributor to soil erosion and desertification with their adverse effects on agricultural production and the hydrological balance. It is causing irreversible destruction to plant and animal genetic resources. It also contributes to the greenhouse effect; the burning of wood and forest and oxidation of wood by other means (eg decomposition) could contribute as much as one-third of CO2 emitted by fossil fuel burning world wide.

2. The main cause of deforestation in developing countries is the poverty of the people who live in and around forest lands, for whom the forest is a major resource for exploitation to meet basic needs. Forests are cut down primarily to meet the demand for land for food and cash crop production. A population of over 2 billion people live in the tropical forest zone. Population is growing at about 2½% per annum. Forests represent the major reservoir of land still available to expand the area under cultivation to meet food production needs. FAO have estimated that 150 million hectares of forest will be cleared in 1988-2000 for this purpose.

3. Over 2 billion people in the developing countries also depend on fuelwood for cooking. As alternative cheap sources of energy for cooking are limited, the demand for fuelwood will continue to grow over the medium term. As the easy availability of fuelwood declines, increasing use is made of crop residues and animal manure for cooking which tends to reduce further the productivity of food production and intensify pressure for area expansion. Fuelwood is estimated to meet 63% of total energy needs in Africa and 16-17% in Asia and Latin America.

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4. Fire occurring naturally or deliberately is another major cause of deforestation. Animal owners often burn forest areas to improve grass production after the onset of the rains.

5. Commercial logging is also a cause of deforestation but off-take for this purpose is a small proportion of the annual increase in the growing stock of forest wood so that there is scope for its expansion as an income and foreign exchange earner provided forests are managed properly (ie protected and replanted).

6. Arresting deforestation in developing countries is a matter essentially of ensuring that the forest stock, and hence soils, moisture and nutrients, are conserved so that agricultural output and standards of living can be maintained in the long run. Priority attaches to conservation, protection and improved management. It will be a major challenge to restrain further reductions in the forest stock let alone increase the forest areas.

7. There are two obvious areas of "market failure" in relation to forestry which justify government intervention:

(i) First, forest products are often in effect free to the user and regarded as a common property resource. Poor people scavenging firewood from the forest act in their own self interest. The fact that the resource is free, common and its use unregulated, will result in the forest being depleted faster than is economically justifiable.

(ii) Second, even were trees priced to reflect their true economic value, and were privately owned, trees could still be over-exploited. This is because prices based on production costs would not reflect the "external" benefits that accrue from trees to the rest of the community (and indeed the world) through prevention of soil erosion and absorption of CO2.

8. Combining an economic and a scientific approach to forestry leads to a valuation of the "wider" costs and benefits of investment to the community as a whole and future generations. By and large the move towards more liberalised market allocation systems in developing countries (supported by IMF/IBRD and donors including the UK) should lead to more efficient husbandry of resources including natural resources. This "structural adjustment" movement seems to be proving helpful to economic recovery. In some respects

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it will also help with the sustainable management of natural resources like forests. Incentive systems for more intensive cultivation and higher yields from agricultural land by itself will limit encroachment on forested land. Better and wider access to credit, improved technology and inputs will help similarly. Clarification of land rights and security of tenure will also encourage improvement of land. The stimulus to development and more non-agricultural job opportunities may also reduce pressures on forests for the poor especially.

9. At the same time these economic measures to encourage fuller use of existing land may also encourage extension of land margins and loss of forest and it is a difficult challenge to devise a package of policy reforms which provide a stimulus to economic recovery/growth as well as conservation of the national resource stock and hence economic sustainability.

10. To influence climate change, by making a sizeable impact on fossil fuel generated CO2, would require an impossibly large programme of worldwide afforestation. Afforestation (and more particularly conservation, protection and improved management) has a role to play in combatting climate change but economic considerations suggest only as a relatively minor element in overall policies to reduce greenhouse gas concentrations.

file.

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

29 June 1989

Dear David,

CLIMATE CHANGE: NEW PUBLIC SECTOR ENERGY EFFICIENCY CAMPAIGN

The Prime Minister has seen your Secretary of State's minute of 23 June about the new public sector energy efficiency campaign. She endorses the campaign he proposes, including the intention to identify a Minister responsible for energy use in each Department (she suggests a list should be published) and a commitment to publishing measures of performance, including a league table. She hopes that a date can be specified in advance for publishing targets and figures on energy usage and that these will be reviewed and published each year. She also wonders whether the Efficiency Unit might help in the process of monitoring by carrying out ad hoc audits.

I am copying this to the private secretaries of the recepients of your Secretary of State's minute.

Yours sincerely,

Caroline Slocock

CAROLINE SLOCOCK

David Murphy Esq
Department of Energy

Prime Minister

Content for (X) (at a cost of £30m for savings of £45m per annum)?
Content for (Y), as Greg Bourne suggests?
But do you agree that (Z) is not appropriate (perhaps the efficiency unit might be used instead)?

PRIME MINISTER

27 June 1989

NEW PUBLIC SECTOR ENERGY EFFICIENCY CAMPAIGN

See attached minute – Cecil Parkinson notes that previous initiatives to promote energy efficiency in Government departments have been patchy and, with a few exceptions, short lived. It is important ~~therefore to set~~ up mechanisms to ensure that a continuous effort is made by departments to measure their energy usage and promote its efficient use.

CAS 28/6

Y

The Secretary of State proposes to:

(X)

- identify a Minister responsible for energy use in each Department;
- streamline existing guidelines on contract energy management;
- set up a system for monitoring progress;
- publish measures of performance where appropriate within the PES White Paper, including a league table.

These measures will start the ball rolling. However, to sustain the effort, I believe Cecil Parkinson should:

(Y)

- publish the list of responsible Ministers (by post title to allow for changes);
- state a date for the first publication of energy usage and efficiency targets;
- state that the targets will be reviewed and published annually;

(2)

- indicate that the Government intends to hire the NAO to carry out independent ad hoc audits to ensure compliance.

Adopting the above measures will harness the external pressures from MPs, select committees and bodies such as the Association for the Conservation of Energy. This external pressure will keep the Whitehall machine focussed on producing results and should prevent backsliding when other "more important" issues attract their attention.

It will also help demonstrate the Government's commitment to energy efficiency just when it is being brought into question during the passage of the Electricity Bill.

GREG BOURNE

Prime Minister

CLIMATE CHANGE: NEW PUBLIC SECTOR ENERGY EFFICIENCY CAMPAIGN

At our 12 January meeting on climatic change it was agreed that there should be a new campaign to promote energy efficiency in the public sector; I subsequently announced this campaign on 15 January. Since then there have been detailed discussions with the Treasury on the components of the campaign, resulting in the proposals set out in the attached paper (which deals primarily with the Central Government element).

The campaign will serve two main objectives:

(i) to demonstrate the Government's own commitment to efficiency, thus setting an example for others;

(ii) to achieve real and continuing savings in energy costs in the public sector.

I propose that the campaign should concentrate at first on Central Government, where I believe it is realistic for Departments to aim to reduce energy use by 15% over 5 years. In cash terms this would represent a £45m annual saving on the present annual energy bill of around £300m. This would probably require a doubling of the present level of investment in energy efficiency to about £30m per annum (in line with the recommendation by the Audit Commission for Local Government that annual investment in energy efficiency measures should be about 10% of expenditure on energy).

I have discussed the expenditure implications of what is proposed for Government departments with John Major. He is satisfied that the campaign will improve value for money in running costs, and

has suggested the reference in paragraph 9 which makes clear the potential benefit to departments in undertaking the generally quite small initial expenditure required to generate the savings. And he has most helpfully offered, in suitable cases, to raise with individual Ministers their energy improvement intentions in expenditure Surveys. When I circulate the material to our colleagues for action he will write in parallel to make this clear.

The campaign will later be extended to other areas of the public sector such as the NHS and Local Government.

Although there have been previous initiatives to promote energy efficiency in Government departments, the effects have been patchy and, with a few exceptions, usually short-lived. I believe it is essential to have high level commitment if we are to launch a credible campaign with measurable results. I am therefore proposing that if you are content, each Department should have a Minister responsible for energy use who will oversee progress towards meeting set targets. My Department will set up a small team to provide advice and co-ordinate monitoring and reporting arrangements.

I should therefore be grateful for your endorsement of this campaign, following which I will write to colleagues to put it into action.

I am copying this minute and the attachment to Geoffrey Howe, Nicholas Ridley, David Young, Kenneth Baker, Paul Channon, John MacGregor, Peter Brooke, Malcolm Caithness, (who were all present at your meeting on 12 January) and to John Major and Sir Robin Butler.

O P.

Secretary of State for Energy
23 June 1989

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 pa 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) Where improved energy efficiency occurs in areas covered by running costs, departments will be able to put the expected savings towards their targets for efficiency improvements in three-year running costs management plans.

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 energy management per £1 million energy expenditure recommended by the Audit Commission for Local Government in a 1985 report. Only the Ministry of Defence and the Departments of Transport and Environment have adopted a strategy covering more than one year with quantified targets. The development of contract energy management under the joint 1987 Energy Efficiency Office/Treasury guidelines has also been disappointing. 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 energy expenditure was £1770 million or 8% of the UK total. From an 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. Departments are already accountable for their energy consumption; from April 1990 they will assume greater responsibility for their energy payments and investment - the details have not yet been finalised. But some important barriers remain:

(i) a lack of clear strategies to which Departments are committed;

(ii) a lack of commitment of technical and financial resources.

Recommended Measures

8. We recommend a phased approach, concentrating initially on Departments and then extending to public authorities and Local Government. Departments need to put their own houses in order and to gain more experience of how successful programmes work in order to require changes in their client bodies. The NHS also needs to digest its 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) Existing Treasury/Energy Efficiency Office 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. Discussions with the Treasury on this aspect are already under way.

(iii) A system for monitoring progress should be established. This should include the publication, where appropriate, of measures on performance within the Public Expenditure White Paper and the construction of a league table. The monitoring and reporting arrangements will be co-ordinated by the team envisaged in para 9(i).

(iv) For Government departments, the £14 million extra expenditure on energy efficiency measures implied in the new campaign is equal to about 0.1% of overall running costs. Cost reductions resulting from energy efficiency investments should mount up over a small number of years to some £45 million per year in all, and these savings would then continue year after year at little or no extra cost. Departments will be able to count these new gains towards their targets for efficiency improvements in three-year running costs management plans. They therefore have the incentive to plan and undertake the relatively small expenditure required to produce potentially substantial savings.

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.

19 JUNE 1989

DEPARTMENT OF ENERGY

RESTRICTED

FCO
LOSBKE
cc PU

SUBJECT cc MASTER

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

22 June 1989

MEETING BETWEEN THE PRIME MINISTER AND MR. JOHN COPE OF CEED, ON 21 JUNE 1989

I thought you would like to know that the Prime Minister yesterday held a short informal meeting with John Cope, the Director of the Centre for Economic and Environmental Development. Mr. Cope requested to see her to follow up a conversation he had with her at the Global Warming Seminar in April.

Mr. Cope sought the Prime Minister's views on three main issues:

(i) the electoral acceptability of environmental policies with a long-term pay-off. The Prime Minister commented that the key thing was to persuade people intellectually and morally of the need for expenditure to solve long-term issues. She said that the vast majority of people want to lead an honourable life and would take difficult decisions if they were persuaded of the need for it;

(ii) the role of regulation, vis a vis fiscal incentives. The Prime Minister said that it was important to leave as much as possible to private enterprise, but that this did not mean a policy of laissez-faire. The Government must lay down a framework of legislation, akin to a picture frame, which sets basic standards. She agreed with Mr. Cope that as consumers become more discriminating, they would tend to take over part of the Government's role. However, in some cases they were unable to do this because science had not yet been able to establish effective options;

(iii) nuclear power and whether the UK should take part in an international consortia to develop safer, small nuclear reactors. The Prime Minister said that she was not convinced that international consortia were the best way to pursue research of

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this kind and she cited the experience of Dounreay and of CERN. She would also be reluctant to write off the existing systems, which such research might imply. However, she accepted that there were major problems in persuading the public of the safety of nuclear power, especially after Chernobyl. She said that she thought that politicians, scientists and economists all had a very important role in demonstrating their commitment to and faith in nuclear power. She mentioned her recent visit to Torness. She also thought that the public would be more convinced of the value of nuclear power if it were possible to calculate and bring home the cost to the environment of fossil fuel generating stations. Mr. Cope said that he felt it would be important for public perceptions of the industry if the nuclear industry could guarantee that there would be no across-the-border effects from any accidents.

I understand that Lord Caithness has asked Mr. Cope to prepare a background paper about how to convey to the public an appreciation of the economic implications of measures to improve the environment. I am therefore copying this letter to Andrew Lean (Lord Caithness' Office) as well as to Stephen Haddrill (Department of Energy).

CAROLINE SLOCOCK

Roger Bright, Esq.,
Department of the Environment.

NBPM

dti

the department for Enterprise

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The Rt. Hon. Lord Young of Graffham
Secretary of State for Trade and Industry

The Rt Hon John Major MP
Chief Secretary to the Treasury
HM Treasury
Parliament Street
London SW1

Department of Trade and Industry

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Telex 8811074/5 DTHQ G
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Direct line 215 5422
Our ref PS4CHM
Your ref
Date 22 June 1989

Dear John,

GLOBAL CLIMATE: ERS-2

I have seen the Prime Minister's Private Secretary's minute of 18 May to John Fairclough recording the Prime Minister's decision that the question of funding for UK participation in ERS-2 should be resolved in the overall context of science and technology spending in the forthcoming PES round. You were invited to take on this task.

I accept that the United Kingdom will not now be able to have a declared position at the June Council meeting of the European Space Agency. But I am concerned that the PES round may not have been completed by the time of the crucial ESA Council meeting on 18-19 October. This is the Council which is due to take decisions both on ERS-2 and on the polar platform. It is, in my view, essential that the UK should have an established position by the time, and preferably in advance, of that Council in order to avoid accusations of inconsistency with our positive stance on environment matters and to exploit the tactical linkages with the choice of the polar platform. Geoffrey Howe has quite correctly pointed out, in his minute of 17 May, that the French could use an early announcement of their readiness to participate in ERS-2 as a means of rallying support for a French design for the polar platform.

My understanding is that we have collectively accepted the scientific, environmental and industrial case for UK participation in ERS-2. John Fairclough endorsed the

scientific case in the papers presented to our meeting on

dti

the department for Enterprise

19 April. As I said in my letter to John Fairclough of 15 May, I maintain my offer to provide 50% of the costs from the DTI budget. Kenneth Baker has also offered a contribution from DES. The question for you may thus really be how to apportion the balance as between the Departments who will be users of, and beneficiaries from, ERS-2. This could lead to a whole set of PES transfers. As an administrative matter, I would be content for the whole cost (less the DES contribution) to be carried on the DTI vote, leaving you to negotiate adjustments to the budgets of other Departments reflecting their contributions to ERS-2. This solution would have the advantage of enabling me to authorise BNSC to make the best tactical use in ESA of UK support of ERS-2.

A procedure along these lines might, indeed, be worth considering as and when other future space projects arise. Space is now a vehicle or a mechanism for many aspects of scientific, environmental and commercial activity. The "users" should expect to stand up to a share of the relevant development costs. Where Government Departments are concerned, we should determine collectively just how the costs of space missions should be shared. But once this exercise is completed, there could well be advantage in carrying the bulk of the expenditure on the vote of one Department. I am quite ready to see DTI play this role. The relevant DTI Minister could assume a degree of political responsibility for aspects of space activity which went beyond his immediate departmental concern. There is perhaps otherwise a risk that political responsibility for space activities may become unduly fragmented. This is a point which is highly relevant to the review of BNSC this summer.

I am copying this minute to the Prime Minister, to other members of E(ST), to Sir Robin Butler and to John Fairclough.

Yours,

David

ENV AFF + Amd Rev Rtn

PRIME MINISTER

MEETING WITH DAVID COPE, DIRECTOR OF THE CENTRE FOR ECONOMIC AND ENVIRONMENTAL DEVELOPMENT: 21 JUNE

You agreed to see Mr Cope for fifteen minutes or so to follow-up a discussion he had with you at the Global Warming Ceremony. Conference

Mr Cope has only just sent me the attached list of the points he would like to cover, as well as background details on what CEED does. There has not been time to get any briefing on these issues but I believe that this is familiar territory. If there is anything specific you would like I can commission it in the morning. Mr Cope refers to Mr Ridley's pamphlet and I am enclosing one for reference.

As you will recall, CEED is a particularly interesting environmental group because of its emphasis on looking at environmental issues in an economic context. It also has close links with industry. This ought, therefore, to be a valuable opportunity for you to explain in greater depth your views. CEED aims, amongst other things, to encourage debate on environmental issues and to provide information (eg it publishes a Bulletin) and it may be that Mr Cope will want to publish your views through the organisation.

CAS

CAROLINE SLOCOCK
20 June 1989

DS2ARE

Daily Telegraph Monday 19th June 1989

file

WHAT THE LATEST OECD FIGURES REVEAL

Compiled by Roger Highfield and Charles Clover from OECD Environmental Data — Compendium 1989, £26·50, available from HMSO, PO Box 276, London SW8 5DT.

Air pollution

According to the OECD the following "traditional" air pollutants contribute to ill health, loss of visibility or soiling. However, the definition of total emissions may vary because methods of estimation and measurement vary. (Figures for EEC countries only.)

SULPHUR DIOXIDE

Contributor to acid rain, product of fossil fuel combustion and also smelting and sulphuric acid production. Britain dirtiest.

	(1000 tonnes)
UK	4,836
France	3,512
Italy	3,211
Germany	3,187

NITROGEN OXIDES

Contributors to acid rain, greenhouse gases, photochemical oxidation pollutants as well as respiratory irritants. Arise from fossil fuel combustion particularly vehicle exhaust emissions. Germany the worst offender here, although Britain not far behind.

	(1000 tonnes)
Germany	2,935
UK	2,264
France	1,861
Italy	1,585

PARTICULATES

Particles arise from fuel combustion and from numerous industrial and agricultural practices.

	(1000 tonnes)
Spain	1,521
Germany	696
France	483
Italy	386
UK	290

CARBON MONOXIDE

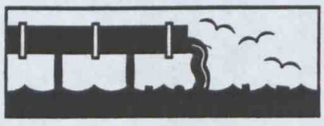
Contributor to carbon dioxide emissions.

	(1000 tonnes)
Germany	11,708
France	6,620
Italy	5,487
UK	4,999

HYDROCARBONS

Contributor to photochemical oxidation. Britain and Germany compete to be the dirtiest in Europe.

	(1000 tonnes)
Germany	2,490
UK	2,241
France	1,972
Italy	1,566



Sewage

	% population served by waste treatment plants
Sweden	100
Denmark	90
Netherlands	90
Germany	86.5
Switzerland	85
UK	84
Finland	74
Austria	67
France	50
Spain	29
Portugal	12.5
Greece	0.5

Research

A comparison of the resources directed into environmental research is another way to assess Britain's resolve to help to clean up the environment. International statistics on Britain's environment research can be found in the annual review of government-funded research and development.

The British Government puts some £46 million into control of environmental pollution, a figure that is dwarfed by West Germany's, although favourable compared with the rest.

	£ million
West Germany	159
UK	46
Netherlands	28
Italy	25
France	23
Belgium	9

However, the picture is not so rosy if the research expenditure on the environment is compared with the overall spending on research. In Britain, the Government spends about one per cent of its research budget on controlling environmental pollution, beating only Italy and France who spend 0·9 per cent and 0·4 per cent respectively.

Britain also seems unwilling to contribute to bilateral or multilateral projects on the environment. Government figures reveal we spend nothing on such projects.

(R&D 1988: Annual review of Government funded research and development; Cabinet Office.)

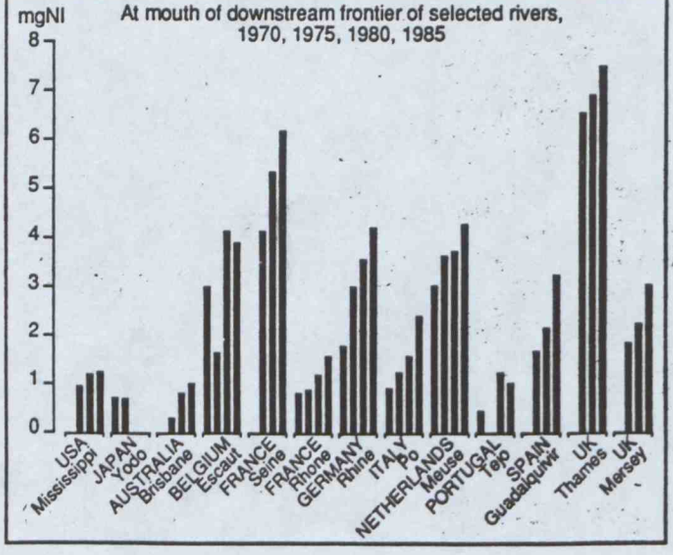
Carbon dioxide

The figures that neither the EEC nor the OECD has yet compiled have, however, been compiled for the United States Department of Energy by the Oak Ridge Laboratory for 1986. Because carbon dioxide is a global pollutant we include figures for non-European countries. These show the US itself, followed by Eastern Europe, to be the most profligate burners of fossil fuels and probably also the least energy efficient.

Per capita figures for production of fossil fuels in tonnes of carbon — each man woman and child in the following countries is responsible for this much CO_2:

	tonnes
United States	5.0
Czechoslovakia	4.2
Bulgaria	3.6
USSR	3.59
West Germany	3.06
UK	2.94
Norway	2.1
Italy	1.65
Haiti	0.02

WATER QUALITY - NITRATE CONCENTRATIONS



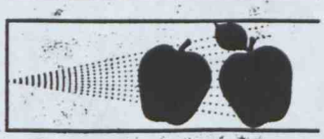
Fertilisers

Use of fertilisers — nitrates, phosphates, and potash — on agricultural land. Nitrates and phosphates can cause eutrophication of surface water. Nitrates can pose health risks to underground drinking water sources.

	tonnes/sq km
Italy	46.5
Germany	26.6
France	18.7
UK	14.5

High-level reprocessing waste

	metres cubed
UK	5,400
France	5,000
Germany	1,940
Belgium	460



Consumption of pesticides

	1000 tonnes
Italy	161,697
France	85,922
UK	40,300
Greece	35,124
Germany	31,417

Spent nuclear fuel

	tonnes
France	43,750
UK	39,750
Germany	16,975
Spain	8,250

FILE SRW

MS. SINCLAIR

GREENERY

The Prime Minister has seen your minute of 16 June suggesting that she might make a major speech on countryside and conservation issues attaching an outline speech and asking for her agreement to work further on it.

She has commented that she has plenty of occasions in which she could make a speech of this kind but that she would like you to work further on your ideas before committing herself. In particular, she would be grateful if you could explore the scope for any new initiatives which could be announced in any speech. She mentioned that by November of this year we should have the Control of Pollution Bill. She also wonders whether we might include some of the ideas in your draft in the speech she will make to the Royal Agricultural Show.

Carline Slocock

19 June 1989

MJ2DTK

LIST OF POINTS FOR DISCUSSION WITH THE PRIME MINISTER
21 JUNE 1989

These points arise from the Prime Minister's response to one of the observations which I made at the Seminar on 26 April and from the discussions which she and I had before lunch on that occasion.

1. The electoral acceptability of environmental policies with long term pay-offs

I observed that I thought it might be difficult to persuade the electorate to accept policies which involved costs in the present but would lead to results in only the longer term (say, not sooner than 10 years from now). The Prime Minister seemed to disagree and think that it was possible to make such policies attractive. I would like to discuss the basis of her belief. Is it reflected in her thinking as presented in her speech to the last Conservative Party conference, where she used terms such as 'guardians and trustees for generations to come' and 'a full repairing lease'?

2. The role of regulation, vis a vis private sector initiative

We discussed the role of regulation (I have also read Mr Ridley's observations on this in his recent pamphlet, which the Prime Minister has seen, I believe). I was impressed by the Prime Minister's analogy of regulation as the frame of a picture.

However, I would like to explore her views on the general extent and structure of regulation, given that it must necessarily require public resources, vis a vis the approach which uses fiscal incentives to send messages to private industry so that it responds directly with environmentally-appropriate initiatives.

At the seminar, I mentioned that I knew, for example, of one private sector company which was already exploring a fairly radical technical approach to the problem of urban traffic congestion and pollution.

3. Nuclear power

I share with the Prime Minister a conviction that this is far too important an option voluntarily to write off from a menu of future options for energy policy. One must recognise that there are, however, unique and deeply felt levels of public unease over the technology.

In particular I would welcome her views on the idea of a 'new start' for nuclear power, with research and development initiatives on new forms of smaller reactors, with 'inherent' safety features and wonder whether part of her global environmental initiative might not be for Britain to take a leading role in setting up international consortia to promote such new forms of nuclear power.

HOW UK CEED OPERATES

UK CEED has a small full-time professional staff, a number of senior research associates and a Board of Directors drawn from leading figures with economic and environmental interests. It has close links with industry, trade associations, leading environmental organisations, central and local government departments, universities and other research bodies, enabling it to draw on outside expertise and experience and to encourage the exchange of ideas.

UK CEED staff provide an independent, objective advice service to the many organisations and individuals who contact the Centre. Staff also represent the Centre and its aims on numerous panels and study groups concerned with environmental policy.

UK CEED draws its financial support equally from three main sources: commercial and industrial organisations, large and small; trusts and charities with environmental interests; and government and public sector agencies responsible for environmental protection. In this way UK CEED is guaranteed an independent, authoritative voice.

UK CEED is a registered charity and a company limited by guarantee.

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Printed by DESA Ltd., Forest Mills, Alfreton Road, Nottingham NG7 3JL.

UK CEED

UK Centre for Economic and Environmental Development
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WHAT IS THE UK CENTRE FOR ECONOMIC AND ENVIRONMENTAL DEVELOPMENT?

There are many organisations working to improve the UK's economic performance and numerous others concerned with environmental protection but the UK Centre for Economic and Environmental Development (UK CEED) is the only independent body concerned with promoting a productive partnership between environmental protection and development interests in the UK.

UK CEED's role is to develop policies and initiatives which further the economic well-being of the UK and at the same time protect the environment for the future through responsible, sustainable use of resources. UK CEED works with industry and commerce to ensure that development policies, investment decisions and operations incorporate the high environmental standards expected in a progressive society. In this way, such standards can be supported by the economic dynamism necessary for their achievement.

ORIGINS OF UK CEED

The initiative for the formation of UK CEED grew out of the 1983 Conservation and Development Programme for the UK. A principal recommendation of the programme, produced by a wide range of industrial and conservation interests, was for a centre to help test, promote and monitor the aims described in this pamphlet.

WHAT UK CEED DOES

To achieve its goals, UK CEED promotes economic analysis of the environmental and development problems of the UK by undertaking high-quality research, encouraging debate and providing an information service. It disseminates both its own research findings and initiatives taken elsewhere through seminars, conferences and a publications programme.

—— PUBLICATIONS ——

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* Discussion papers have included:
  - environmental implications and applications of biotechnology
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  - inner city regeneration
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* major conferences, mainly on aspects of industry and the environment.

END

LIST OF POINTS FOR DISCUSSION WITH THE PRIME MINISTER
21 JUNE 1989

These points arise from the Prime Minister's response to one of the observations which I made at the Seminar on 26 April and from the discussions which she and I had before lunch on that occasion.

1. The electoral acceptability of environmental policies with long term pay-offs

I observed that I thought it might be difficult to persuade the electorate to accept policies which involved costs in the present but would lead to results in only the longer term (say, not sooner than 10 years from now). The Prime Minister seemed to disagree and think that it was possible to make such policies attractive. I would like to discuss the basis of her belief. Is it reflected in her thinking as presented in her speech to the last Conservative Party conference, where she used terms such as 'guardians and trustees for generations to come' and 'a full repairing lease'?

2. The role of regulation, vis a vis private sector initiative

We discussed the role of regulation (I have also read Mr Ridley's observations on this in his recent pamphlet, which the Prime Minister has seen, I believe). I was impressed by the Prime Minister's analogy of regulation as the frame of a picture.

However, I would like to explore her views on the general extent and structure of regulation, given that it must necessarily require public resources, vis a vis the approach which uses fiscal incentives to send messages to private industry so that it responds directly with environmentally-appropriate initiatives.

At the seminar, I mentioned that I knew, for example, of one private sector company which was already exploring a fairly radical technical approach to the problem of urban traffic congestion and pollution.

3. Nuclear power

I share with the Prime Minister a conviction that this is far too important an option voluntarily to write off from a menu of future options for energy policy. One must recognise that there are, however, unique and deeply felt levels of public unease over the technology.

In particular I would welcome her views on the idea of a 'new start' for nuclear power, with research and development initiatives on new forms of smaller reactors, with 'inherent' safety features and wonder whether part of her global environmental initiative might not be for Britain to take a leading role in setting up international consortia to promote such new forms of nuclear power.

HOW UK CEED OPERATES

UK CEED has a small full-time professional staff, a number of senior research associates and a Board of Directors drawn from leading figures with economic and environmental interests. It has close links with industry, trade associations, leading environmental organisations, central and local government departments, universities and other research bodies, enabling it to draw on outside expertise and experience and to encourage the exchange of ideas.

UK CEED staff provide an independent, objective advice service to the many organisations and individuals who contact the Centre. Staff also represent the Centre and its aims on numerous panels and study groups concerned with environmental policy.

UK CEED draws its financial support equally from three main sources: commercial and industrial organisations, large and small; trusts and charities with environmental interests; and government and public sector agencies responsible for environmental protection. In this way UK CEED is guaranteed an independent, authoritative voice.

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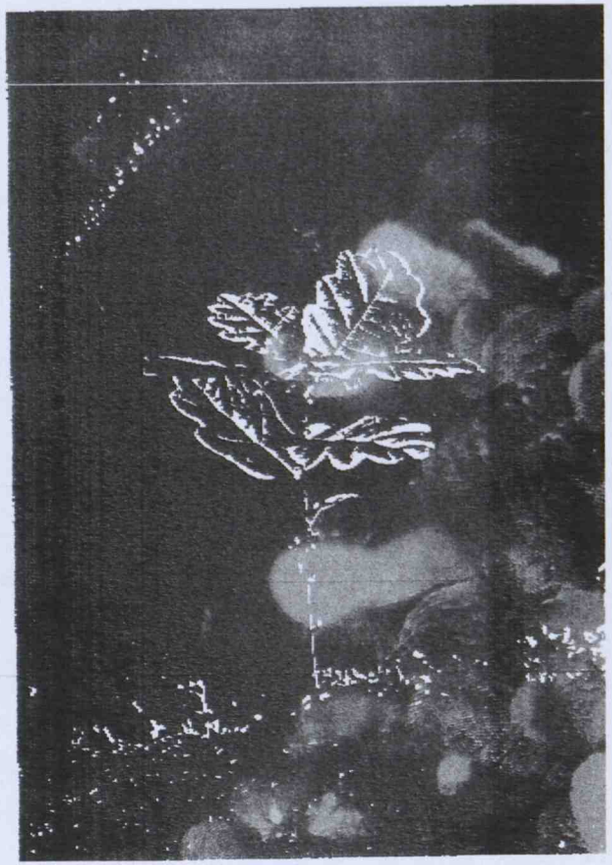

UK Centre for Economic and Environmental Development
12 Upper Belgrave Street
London SW1X 8BA

WHAT IS THE UK CENTRE FOR ECONOMIC AND ENVIRONMENTAL DEVELOPMENT?

There are many organisations working to improve the UK's economic performance and numerous others concerned with environmental protection but the UK Centre for Economic and Environmental Development (UK CEED) is the only independent body concerned with promoting a productive partnership between environmental protection and development interests in the UK.

UK CEED's role is to develop policies and initiatives which further the economic well-being of the UK and at the same time protect the environment for the future through responsible, sustainable use of resources. UK CEED works with industry and commerce to ensure that development policies, investment decisions and operations incorporate the high environmental standards expected in a progressive society. In this way, such standards can be supported by the economic dynamism necessary for their achievement.

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C·P·S·

The Secretary of State for the Environment argues that safeguarding the environment has always been, and continues to be, central to Conservative philosophy. In the fight against pollution – local, regional and global – it is essential to follow certain principles: that the powers of producers and regulators be kept totally separate; that 'the polluter pays' and that this be reflected in pricing; that scientific evidence be soundly assessed and (if the cure is not to be worse than the disease) that the best environmental option be always chosen; and that international agreements be vigorously sought. But it is only the creation of wealth which gives us the resources necessary to combat pollution; the overriding task is to execute policies for economic growth which the environment is able to sustain.

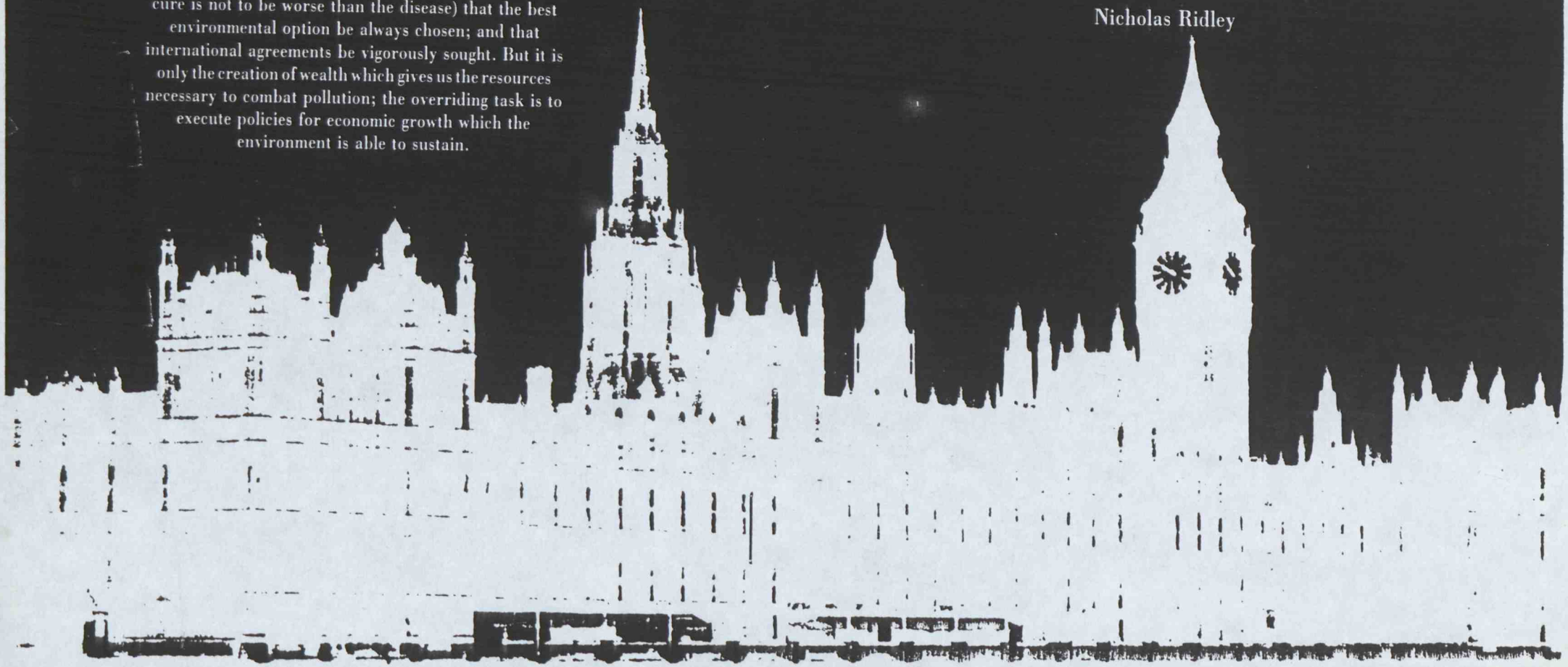
C·P·S·

Policy Study No 107

Policies against Pollution

the Conservative record – and principles

Nicholas Ridley



CENTRE FOR POLICY STUDIES

Preface

The Government's programme for environmental protection seems to have come as something of a shock to some of the less well informed commentators. Because they suddenly 'discovered' the issue following the Prime Minister's speech to the Royal Society on 27 September 1988, they assumed that no policy existed before, rather like the philosopher who claimed that things did not exist until he looked at them!

But Conservative action on the environment has a long history. The programme of this administration is impressive by any standards, and it builds on a long tradition of Conservative Government action. Indeed the most significant pieces of legislation on pollution have been passed under or initiated by Conservative Governments. The first Clean Air Act, which removed the scourge of smog from our towns, was passed under a Conservative Government in 1956. It was also a Conservative Government in 1972 that introduced the Deposit of Poisonous Wastes Act to control the movement and dumping of hazardous wastes. It was a Conservative Government which initiated the Protection of the Environment Bill in 1974, designed to deal with air, noise, water and waste pollution. This became the Control of Pollution Act 1974 under a Labour administration.

Conservative action on the environment thus predates this administration by many decades. The principle of all these pieces of legislation was government action to protect the public interest in environmental matters against the particular and competing interests of private and public sector companies and individuals.

There is nothing new in this, but again and again there is a lack of understanding about how the practice of environmental protection fits in with the philosophy of Conservatism. I am constantly being asked how as a free marketeer – which indeed I am – I can square my principles with the intervention which is necessary to ensure that the unfettered free market does not lead to pollution and environmental damage. Even a correspondent from that relatively well informed publication the *Independent* said it was 'hard to believe' that the Prime Minister 'leapt into her Royal Society speech without realising that it would in time become impossible to convey conviction without adulterating the purity of free market absolutism and engaging

in some brisk intervention and regulation'. That correspondent cannot have understood the basic principles of free markets. 'Free market' does not mean 'free-for-all'. It never has. It is an essential part of the free market philosophy that regulation by government is necessary to secure the public interest in environmental protection.

Such regulation is a central part of Conservative philosophy, but it is not part of the philosophy of socialism. To a socialist, public ownership is seen as synonymous with the public interest and the importance of separating regulation from production is not clearly perceived. Indeed I would argue that the experience of socialism in this country has shown that it has a tendency to destroy those checks and balances which ensure that society progresses and evolves in harmony with its environment. The purpose of this document is to explain how protection of the environment and our heritage is, and always has been, central to our philosophy and how the principles upon which we base our economic recovery create the means for achieving and enhancing that protection.

1
Defining the environment

Perhaps I had better begin by defining what I mean by an 'environmental issue'. Ever since the press decided that the Government was 'green' after all, following the Prime Minister's speech in which she concentrated on the problems of global pollution, people have been saying to me 'Right! now that you're "green", stop that housing development down the road'. I have to tell them that I do not regard housing as a form of environmental pollution. 'Environment' is a very wide term, and you cannot talk sensibly in the same breath about the ozone layer and local planning policy. In this pamphlet I want to concentrate on pollution, because in the light of what we are beginning to understand about its effect on the climate, it poses an immense threat to the future of mankind and will pose immense challenges to governments throughout the world. It will assume tremendous political importance. It will require an understanding of the right principles to apply.

Pollution issues can be roughly separated into four groups, which overlap to some extent: local mess, localised pollution, regional pollution and global pollution. By local mess I mean the sort of pollution which can be remedied by individuals improving their behaviour – litter primarily, like old bedsteads in the ditch, and local noise pollution. By localised pollution, I mean pollution which is mainly local in its effects – such as pollution of rivers by sewage or pollution from mishandled waste. By regional I mean pollution which has a wide effect but is still within a defined area – pollution of the North Sea, pollution caused by lead in petrol, acid emissions from power stations. Then there are the global issues – the depletion of the ozone layer or the accumulation of 'greenhouse' gases in the atmosphere. This is pollution on a world scale and causes problems on a world scale.

I want to concentrate on the last three areas where government regulation and enforcement is the key to improvement and where the individual member of the public cannot do much directly to assist. Of course, it would be wrong to ignore the role of the individual. He can tackle the problem

of local mess and keep his locality clean and neat. In Britain we are not, when it comes to the wider pollution issues, the 'dirty men of Europe', but when it comes to litter – the most visible form of pollution – we are. Yet it is a strange fact that while we continue to strew our streets with sweet wrappers and empty drinks cans, we also care deeply about our local environment. As a nation we are considered almost eccentric for our pride in locality, our interest in the beauty and history of our countryside, for our well-tended gardens, our love of wildlife and so on.

To those who do care and who would 'do something' if they had the power, the feeling of impotence in the face of such a massive problem is obvious from any MP's mailbag. But it is not something the Government can regulate or police because the polluters are too many and too undetectable. It is one of the themes of this pamphlet that the powers of regulation and the provision of a service should not be in the same hands. This rule of thumb can be applied to litter pollution. The job of cleaning streets and public areas is a local authority responsibility. While many accord it a high priority, others do not and so standards vary tremendously. There is no 'regulator' in place to call councils to account if they fail in their duty. The problem is local and the regulators and enforcers must also be local. It is local individuals – those who care most deeply – who should be given the task. Hence our proposals to give local people the right to call their local authorities to account if they fail in their duty. That duty will be set out in a code of practice.

The individual can get involved in pollution control in many ways, litter enforcement being perhaps the most effective. The best way to promote understanding of the wider pollution issues is when the individual experiences the responsibility in his own life. It reinforces Burke's analysis of how the individual acting at the most local level with others can learn to care about issues which affect mankind: 'To be attached to the subdivision – to love the little platoon we belong to in society is the first link in the series by which we proceed towards a love of our country and of mankind'.

The world will need such people in the next few decades.

2

History of the parties

It is a simplistic and erroneous belief that free marketeers must be opposed to any form of regulation of economic activity. It is perhaps true of the anarchist but has never been true of the free marketeer. It is accepted, for example, that a free marketeer believes that free competition should be fair competition. But for obvious reasons one cannot permit the competitors to decide what is fair. Where this is a risk, it is necessary to have an external regulator who does not have a financial stake in any of the competitive enterprises. Therefore we have built up a body of laws and institutions which set the framework within which free competition operates. Children cannot work down mines. Health and safety inspectors enforce standards of cleanliness and safety in the workplace. The Monopolies and Mergers Commission tries to ensure that consumers' interests are protected against the growth of anti-competitive monopolies and cartels by producers, as does the Director General of Fair Trading. Such laws and institutions are essential components of the free market. They are central to the Conservative view of the role of the State as enabler, regulator and setter of standards in the public interest, but not as a provider of services or producer in its own right.

That apostle of laissez-faire, Adam Smith, set out just such a role for the State. He argued that government should not intervene in the economic sphere except to enforce the laws preventing violence and fraud, and to sustain by taxation and public expenditure those few necessary activities, such as defence and criminal justice, which cannot be provided by private markets. There is nothing in principle so very different about pollution. Pollution, like fraud, is something you impose on others against their will so that you can perhaps gain financial advantage. It is an ill for which the operation of the free market provides no automatic cure. Like the prevention of violence and fraud, pollution control is essentially an activity which the State, as protector of the public interest against particular interests, has to regulate and police.

It is a consistent hallmark of this Conservative Government

that where the public interest and the producers' interests have not been clearly separated we have acted to separate them and to give the regulator legislative teeth to be able to enforce standards in the public interest. Where we do *not* believe in interference within a competitive market is in the setting of prices for the consumer. Entrepreneurs produce goods to make profits, and prices are the mechanism which allow them to make profits and automatically balance supply and demand at the same time. Wherever a competitive market exists, no interference in the freedom to set prices can be justified. One example is a policy which I pioneered at the Department of Transport: bus deregulation. The principle on which that policy is based is that the commercial side of bus services should be left to the market. However local authorities as the 'regulators' in the public interest have been given tougher and more explicit powers over safety and traffic management. In the true Adam Smith tradition they were given the powers to provide services which could not be provided by private markets because they would not give entrepreneurs a profit or would not be purchased voluntarily by all who benefit from them. The local authorities were given specific powers to subsidise unprofitable bus services. The Director General of Fair Trading was given enhanced powers to prevent monopolies and cartels developing. Publicly owned bus companies are either being privatised or – a second best – put at arms length from the regulatory authority, the council.

So where does the environment fit into all this? First of all let me recall why we believe in free markets. We do so because they have proven to be the best way in which people's needs as consumers are met and the quality of their lives improved. This is important for the environment in a number of ways. Wealth gives us the resources to protect the environment. Poverty can be disastrous for the health of our environment and the physical beauty of our surroundings. Those who believe as I do that the problems now facing agriculture offer opportunities for a better environment should not forget the considerable dangers there are to the environment resulting from low farm incomes, such as lack of investment in adequate slurry and silage equipment, which is the main cause of agricultural pollution of our rivers. This is something we are helping to tackle with generous grants to farmers for investment.

Looking around the world, the connection between wealth and environmental protection is obvious. It is the free western democracies with their advanced industrial base which are in the forefront of environmental protection. This is hardly surprising. First we have the wealth to afford it. Secondly a potent source of pressure on industry to practice better environmental standards is provided by consumer demand in a free market and the political demands of the electorate on the government. Indeed it seems that the more the economy prospers, and the less people have to worry about their financial security, the more concern there is about environmental matters. It is the less developed countries of the Third World where the problems of pollution are now chronic, and where the immense pressures to modernise as quickly and cheaply as possible threaten to keep them that way. It is no accident that the most horrifying pollution stories often seem to come from behind the Iron Curtain where production is not regulated by demand but by bureaucratic fiat. Poverty and corruption are potent causes of pollution and both are fostered by inefficient centralised economic systems. The remedy behind the Iron Curtain certainly lies in more *glasnost* and *perestroika* but there is a long way to go to catch up.

Free markets are a means to an end. They would defeat their object if by their output they did more damage to the quality of life through pollution than the good achieved by production of goods and services.

The public interest in environmental protection is – like the public interest in fair competition or safety in the workplace – something which has to be served by regulation by bodies with no financial stake in production. And contrary to the popular misconception, it is those who believe in free market economics who understand and practice this distinction most clearly. We have acted, often as part of the process of privatisation, to establish this clear separation of functions.

Socialists by contrast have never really understood the importance of this functional split. Indeed the socialist belief in the virtue of State ownership has tended to blind them to the distinction between the producers' and the public's interest. They make a distinction between public and private ownership. We distinguish between production and regulation in the public

interest. What after all is public ownership to the socialist but ownership in the public interest? With public companies under the control of government and the cosy if rather amorphous relationship which that implies between ministers and managers, and without the profit motive as the prime incentive to the producer, why should there be any need to police standards in the public sector as rigorously as in the private sector?

We all know that the practical experience of monopolistic publicly owned companies has not matched up to the ideal of public service in the public interest. The companies, and therefore the government and the public, became prey to the overriding interests of the producers who were the big public sector unions. The lack of competition often meant poor service to the customer. Public sector managers had to wrestle with the well-nigh insoluble conflict between their duty to meet financial targets set by government and their role as setters and enforcers of their own environmental standards. The power of the big public sector unions in the economy and within the constitution of the Labour Party tended to mean that their interests not only took precedence over the interests of the consumer but over the best environmental practice. Coming as they often did from the polluting industries of the 19th Century, some of the unions have in fact become a force against environmental improvement. Why in this country have we been so dependent on coal despite the fact that it is one of the most polluting of all sources of energy and despite the massive losses sustained by the industry over the years? One obvious reason is the enormous muscle power of the NUM which until the 1984 coal strike was thought almost invincible. The power of unions like the NUM within the Labour Party of course make it very hard for even the most well intentioned socialist to contemplate policies that might call into question the goal of ever-increasing coal production. It is seldom pointed out that the inevitable result of greater and greater coal production for electricity is more pollution – and that pollution is avoidable by using other sources of energy.

Nuclear power creates no greenhouse gases and with proper safety controls is clean and safe. Yet socialists in this country continue to be opposed to nuclear power for entirely irrational reasons or for no reason at all. At their last annual conference the SLD voted to phase out nuclear power for

electricity generation and voted down a proviso that would have allowed nuclear power when it 'proved to be both safe and commercially viable in comparison with other forms of electricity generation'! Anti-nuclearism is more of a religious faith to such people than a reasoned policy. Perhaps the original proponents of nuclear power might have done us all a service had they decided to call it something else.

Central ownership of the means of production puts two quite different functions into the hands of government – production and regulation. In all countries where the short-term interests of the producer can be served by polluting the environment, pollution is more likely to be permitted by governments where the government itself is the polluter and where it has to find the money to put things right.

Socialists continually demonstrate this dilemma. For example, following the Piper Alpha disaster, Labour's spokesman complained about what they called the 'conflict between (the Department of Energy's) responsibility for production and for safety'. A few months later I was vigorously attacked for proposing a similar separation of the powers of production and environmental protection for the water industry. In fact, in the oil industry, production and safety interests are separate. The inspectorate for oil rigs is an independent inspectorate within the Department of Energy. The Secretary of State for Energy has no conflict of interest, although the potential for conflict certainly existed when the Government had a direct financial stake in the oil industry and when the Government was giving BNOC ambitious financial targets. In the water industry on the other hand, that conflict of interest certainly exists now and yet socialists have failed to see it. In a splendidly muddled statement John Cunningham, the Labour Party's environment spokesman, spelt out the party line: 'We in the Labour Party believe that this natural resource and the water industry's assets should be publicly owned and controlled. They should be managed openly and efficiently in the public interest . . . Unlike the Tories we do not believe that an essential resource such as water should be managed and sold for private gain. For us public health and hygiene are not matters to be dealt with by market forces.'

I entirely agree with John Cunningham's last sentiment,

but what that quotation illustrates all too clearly is the inability of the socialist to understand how these interests are given full protection – far greater than they had before – by the provisions of our Water Bill. The trouble is that time and again socialists confuse concepts which should be totally separate: public ownership with public interest, production with environmental protection. Though some are waking up to the distinction between these concepts (Neil Kinnock spoke on 20 March of the Government's role being 'to facilitate, to regulate and to participate') the bedrock of socialist philosophy is 'you can't regulate when you don't control', and 'you can't control when you don't have ownership'. And as far as one can gather this philosophy is still the basis for much of the Labour Party's present policy review.

In fact it is absolutely central to the free market approach to environmental matters that the opposite is the case. You cannot or should not regulate if you also own. And if you regulate, it is better that you do not own. The water industry is a good example of the problem. Under public ownership, the industry is the only discharger of sewage effluent, yet it is also the 'policeman' for water quality standards. The industry has long struggled to manage the inherent conflict between its role as provider of water and sewerage services and as protector of the cleanliness of our rivers, estuaries and bathing waters. Sometimes this conflict has been to the detriment of the environment. The under-investment in the water industry which occurred in the late 1970s meant cut-backs in investment programmes, sewage treatment in particular, which should have gone ahead on environmental grounds. We are still paying the price for the under-investment with the problems of pollution of Britain's rivers and beaches by sewage. The situation is improving and the National Rivers Authority will ensure that it continues to improve at an accelerating pace. But recent experience demonstrates that public ownership would cause the regulatory rules to be waived when there was a conflict with the need for economies.

Another example is the practice of waste management by local authorities. They are both the regulators and policemen for waste disposal sites but they also provide some of the waste disposal sites and manage them in their own right. Successive

reports of the Hazardous Waste Inspectorate – now Her Majesty's Inspectorate of Pollution (HMIP) – show that the standard of these sites varies from extremely good to appallingly low. Clearly many local authorities have let their interests as providers of the service take precedence over their interest as regulators and enforcers of pollution standards by cutting costs to a minimum.

There is another key concept which socialists have never really understood and that is that the polluter should pay for the costs of pollution. Of course they understand the point if one restricts the definition of polluter to the fat plutocrat smoking cigars in the back of his Rolls Royce. But the logic of the polluter paying is that the polluter's customers pay. Each polluter is merely supplying the demand of his customers who willingly consume the chemicals, weed-killers, electricity, gas, water, petrol or other substances from which the public benefit. But the consumer is also the pensioner, the one parent family, the inner city resident: that is where, as in pricing policy generally, socialist logic leaves the rails!

Prices which reflect the long-term costs, including the environmental costs of producing a product, are the essential components of environmental protection and conservation. It was actually the last Labour Government which stated the case for economic pricing (in energy) very well. 'Policies will be working under a severe handicap if price signals are not pointing in the same direction. Energy prices should give both consumers and producers reasonably accurate signals about costs of energy supply. Under-pricing encourages consumers to waste scarce resources and may discourage additional supplies' (*Energy Policy* White Paper Cmnd 7101 February 1978).

Unless we attach costs to environmental protection, customers will not be getting the right signals to influence the consumption of the product which gives rise to the pollution. Some environmentalists have laid all the stress not on pricing policy but on direct energy efficiency measures. While these have their place, they cannot be divorced from pricing policy. For example there is evidence that households take up some of the opportunities for cheaper heating offered by better thermal insulation and higher standards of thermal comfort. The key to any conservation policy must remain pricing.

The cost of eradicating pollution is only one component in

the cost of any product. But the principle of market pricing is that the price to consumers should reflect and cover all costs. Where there is no free market and the Government effectively sets the price in negotiation with the producer – the nationalised industry or privately owned monopoly – the same principles should apply by regulation. Neither in practice nor in theory do socialists seem to understand these principles. Direct price controls and subsidies for essential products are seen by socialists as cardinal weapons to combat inflation although they are in fact nothing of the kind. Remember how in the 1970s prices of certain essential products – gas for example – were held well below the cost of production. The result was that in 1979 the British Gas Corporation was selling gas to domestic consumers at a loss. The unreasonably low price of gas led to increased demand by consumers, outstripping BGC's ability to supply. Many industrial consumers found themselves unable to negotiate supply contracts with British Gas. Remember also how the Labour Government's panoply of price controls which affected petrol as well as other commodities, led to a threat of petrol shortages. By 1979 they were considering rationing as a solution to the mismatch between supply and demand. The new Conservative Government quickly found a more effective solution in abolishing price controls! It seems very odd that a government could tie itself into such knots when the solution was so very simple. But we must never underestimate the power of the fundamental socialist belief in the virtue of State intervention in the working of the free market to achieve social or political aims. A socialist who recognises the free market as a solution to the problem would hardly be a socialist.

The point is relevant to the environment because pricing policy is the most potent weapon in our green armoury. Holding the price of commodities below their true costs tends to mean that the interests of the environment and conservation get lost to political expediency. Consumers should be getting the right signals about the real long-term costs of what they are consuming – costs which reflect the availability of the commodity and the need for investment in pollution control. At the time of government-imposed price controls, they were not given these signals. As a result in many areas they consumed too much. The fundamental key to any successful programme of pollution

and conservation is pricing. Consumers regulate their use of products when it is in their financial interest to do so.

3

Conservative environmentalism in practice

This is not the place to provide an exhaustive list of measures taken by Conservative Governments since 1979 to protect the environment. The purpose of this pamphlet is to explain the intellectual foundation of these actions. However some examples will serve to draw out these themes and illustrate some principles which guide us.

The first principle – separating regulation from production

Our Water Bill puts into effect the principle of separation of powers of the producer and regulator. It represents the most significant step forward in environmental protection for many years. A new public sector body, the National Rivers Authority will assume responsibility for water resources regulation and planning, environmental quality and pollution control, land drainage and flood protection, fisheries, conservation and recreation. These are the functions, the 'public interest' functions, over which the community at large represented by the Government needs to exercise control. This body will police and enforce a framework of environmental standards set by Government. The NRA will be under a legal obligation to achieve statutory water quality objectives. Its powers will include the ability to grant or refuse effluent discharge consents and consents for sewage effluent, powers to protect areas of land from pollution by nitrates and pesticides and stronger powers for the control of dangerous substances. These powers will be backed up by a system of fines payable to consumers by water companies whose water quality does not achieve the statutory objectives. The commercial water supply and sewerage services will be provided by Water PLCs which will be sold to the private sector. Private ownership gives consumers a guarantee that water quality will not be compromised for wider economic objectives. There will be no government financial targets for the water companies. They will be given clear directions by the NRA and they will have free access to private capital markets in order to

ensure that the necessary investment goes ahead.

In January this year, following a review set up in 1986, we announced our proposals for a wholesale reform of the law relating to waste disposal by local authorities according to exactly the same principles of separation of powers. We will establish national standards of regulation for local authorities' waste management functions which will apply equally to public and private sector facilities. There will be greater public accountability by all authorities with statutory powers for HMIP to examine and report on the way in which authorities carry out their functions. There will be clearer and better targeted default powers exercisable by government. Local authority waste disposal companies will operate at arms length from their parent local authority in full competition with the private sector. Waste collection authorities will be responsible for the disposal of the waste they collect and will be required to seek tenders. Waste disposal authorities will become waste regulation authorities with a statutory duty to implement national environmental standards of waste disposal.

The second principle – the polluter pays

Coming on to the second principle that the polluter pays, our policy since 1979 has been that prices to consumers should reflect the costs of provision including the need for investment in environmental protection. This ensures that the consumer is given price signals which influence his consumption and help us to achieve our environmental objectives. This does not mean excessive price increases. While prices must be realistic, our policy has been to control relative price inflation by backing the efforts of management in nationalised industries to exert a steady downward pressure on costs by curbing excessive wage demands and improving efficiency.

The third principle – scientific evidence

Whenever we act to curb some polluting activity we must have some reasonable scientific evidence that the activity is likely to be harmful, the cause of it, and that our actions are likely to be effective. It is seldom mentioned by those who demand action that a cleaner environment costs money. The costs have to be borne by the polluter and ultimately by his customers. Imposing

extra cost burdens has an effect on industrial competitiveness. If we in this country unilaterally took all the action, sensible or half baked, that we are urged to take on the flimsiest scientific evidence, we could easily price ourselves out of world markets. And as I have argued before, economic decline, or the nil or negative economic growth scenario which some environmentalists still yearn for, is not a good foundation on which to build good environmental policy. Of course there will be times when the possible consequences for the environment are so great that action has to be taken in advance of scientific certainty. That is the 'precautionary approach'. It was that approach which we adopted in part by signing a series of agreements last year to reduce pollution in the North Sea. But it is basically an unscientific approach and is necessary much less often than is sometimes thought. There is always the risk of taking the wrong action. The best approach will usually be to analyse the facts first and then take the appropriate science-based action. That approach also means that the cost effectiveness can be properly considered.

In the case of acid deposition for example, once the evidence and scientific analysis was convincing the Government acted decisively. Acid deposition is a complex matter. But scientific evidence showed that when very thin soils overlie granite bedrocks acid rain leaches aluminium from the soil. It is the aluminium salts rather than the acidity which is lethal to adult fish. Acid rain has also been held responsible for the poor condition of forests all over Europe. However poor tree health is experienced patchily and in many different pollution climates. In some areas of Continental Europe it may for example be influenced by secondary pollutants such as ozone to which other sources like car exhausts are major contributors. Unless we understand the problem, we can not find the right policies to tackle it.

On the basis of the evidence about acid rain and the role of Britain's power station emissions, we set in hand one of the largest programmes of desulphurisation in Europe. We pledged ourselves as long ago as September 1986 to a programme of retro-fitting flue gas desulphurisation equipment to coal fired power stations with a total capacity of 6,000 megawatts. In order to cut emissions of nitrous oxides, we also decided to retro-fit

all 12 of our major coal fired power stations with low nitrogen oxide (NOx) burners. We required all new power stations to be similarly equipped. We have recently gone even further. We agreed in June last year to further major action to cut sulphur emitted from large combustion plants. In total this action will cost around £1.8bn but it is money well spent. Again this is government regulating and enforcing environmental standards on what others provide. It is the polluter and the polluter's customers who will have to pay for it.

Evidence about the effect on health of lead in the environment persuaded us to reduce its levels wherever possible including in petrol. In December 1985 we reduced the permitted amount of lead in petrol by over 60% to 0.15 grams per litre. As a result levels of lead in the atmosphere have been halved. We introduced and subsequently increased the tax differential in favour of unleaded petrol. We are working with the petrol and motor industries and consumers and environmental groups to encourage its uptake. Anyone who needs proof of the importance of the price weapon should remember the dramatic effect of the 10p price differential announced in the March budget on the availability of lead-free petrol and also on its use. Well over 7,500 stations are now selling unleaded petrol and there will be many more. Removing lead from petrol is essential as a first step if we are to implement all the optional standards specified in the Luxembourg Directive on car emissions. They are the tightest which can be imposed by Members of the States and Britain has decided to apply them all. Again the principle is government-imposed environmental standards on what others produce.

The fourth principle – best practical environmental option

The fourth principle is that you must look to the secondary effects of pollution. In removing pollutants from the air it may be that the same pollutants find their way into the water supply and are in fact more damaging. We have to accept that many essential activities generate waste products which are potential pollutants. If we cannot eradicate or recycle these waste products then the best available means of disposal has to be found. Even the measures we take to clean up our environment can have unfortunate environmental consequences of their own. These have to be assessed. For example taking sulphur dioxide out of

power station emissions requires us to quarry vast quantities of limestone which is often to be found in our most scenic areas. It also generates large amounts of by-products, such as gypsum, which have to be disposed of somehow. It also means emitting more carbon dioxide because of the reduced energy efficiency and the conversion of limestone to gypsum. The 'best practical environmental option', as it is called, is a new term, but the concept has been applied informally for many years. Again it requires the skilled judgement of a regulator – separate from the producer – to make effective.

The establishment of our HMIP brought together the regulation of pollution of air, water, wastes and radio-active wastes to develop an effective framework for integrated pollution control. In July 1988 we announced our proposals to legislate for a system of industrial pollution control which treats the environment as an integrated whole and seeks the best outcome for the environment in the authorisation of industrial processes. Our proposals on industrial pollution control put us ahead of the game in this area.

The fifth principle – international action

The international dimension of our efforts brings me to my last principle. The scale of some problems requires that we seek international agreement on measures to reduce regional or global pollution. Unilateral action in such cases is ineffective and can easily become self-defeating. Such pollution knows no boundaries and one country's production can become another's pollution. Moreover pollution control brings costs and, unless international agreements are reached on common goals or standards, the measures necessary to reduce pollution may make our industry uncompetitive in world markets if we alone incur these costs. Under the Prime Minister's leadership we have enormous influence in international negotiations and we should use and are using it to achieve world agreement on environmental matters.

4
Sustainable growth

Over the last decade or so international attention has increasingly become focussed on the problem of ensuring that modern development on this planet takes place at a pace which the earth's environment can sustain. There is growing evidence that the measures we take to serve our short-term interests are damaging the long-term interests of the environment. The Brundtland Commission's report of 1987 drew attention to the problems over a wide range of issues. Its fundamental conclusion was that nil economic growth was not an option. Economic growth is a necessary pre-condition for environmental improvement but it is possible and necessary to plan for economic growth which is environmentally sustainable.

Britain was the first country to publish a full response to the Brundtland report endorsing its principles and setting out a practical programme of measures implemented by the British Government to ensure sustainable development and to take the discussion forward internationally. This has given us a key position in leading international discussion further.

Let us turn back once again to the Prime Minister's Royal Society speech. In that speech she drew attention to a major issue which will confront governments in all countries over the next few decades, that is, the effect on the environment and atmosphere of the increase in so-called 'greenhouse' gases – carbon dioxide, methane and chlorofluorocarbons – which has led to fears that we are creating a global heat trap which will lead to climatic instability; second, but connected, is the discovery of a large area of severe depletion in the ozone layer which protects life from ultra-violet radiation.

In March this year we hosted an international conference on 'Saving the ozone layer'. This aimed to bring about further progress internationally on measures to halt the accumulation of chlorofluorocarbons (CFCs). We believe, based on scientific evidence, that these are the chemicals mainly responsible for the erosion of ozone in the upper atmosphere. In 1987 we ratified an agreement in Montreal to reduce CFCs by 50% by 1999. We are on course for achieving this target by the end of 1989, 10

years ahead of schedule. And we now believe, (and recent research suggesting levels of CFCs in the northern hemisphere are far higher than we originally thought lend weight to this) that worldwide emissions of CFCs need to be eliminated entirely as soon as possible.

The London Conference was an outstanding success: 123 nations attended. Before the conference, 33 nations had ratified the Montreal Convention. After it, 20 more looked set to ratify it. More still returned to their countries for discussions and we hope they will shortly ratify as well. Even those who did not attend, cannot fail to be aware of the urgency of the problem and the means of tackling it, and we will continue to work to bring them into the process. The conference was a watershed in world history. For the first time ever the world was united in its determination to act on a threatening global problem.

That spirit will be needed again when we come to the much more complicated issue of the greenhouse effect. Indeed agreements on limiting production of CFCs might prove to be the easiest of the measures which Governments will have to take. Knowledge is much less well advanced in understanding the greenhouse effect. We know that there is an accumulation of gases in the atmosphere which interfere with the process of heat loss from the earth's surface. Carbon dioxide is the most important of these. Levels of carbon dioxide in the atmosphere have already increased by some 25% since the Industrial Revolution and are expected to increase by perhaps as much as a further 30% in the next 50 years. But other gases contribute to the greenhouse effect as well; these include methane, resulting from certain agricultural practices and waste disposal, and CFCs. On some estimates the effect of these could be to bring about a global warming of between 1.5 and 4.5 degrees centigrade by 2050.

The fact that there is such a wide variation in these estimates of temperature change, and the implications this has for any possible rise in sea level due to the melting of land-based ice and the expansion of the sea, mean that more scientific evaluation is needed. The UK Meteorological Office is one of the four world centres with a computing capacity to model the world's climate. Its Director is leading the United Nations Environment Programme/ World Meteorological Organisation

Group which is examining the science of climatic change.

When firmer scientific evidence is forthcoming (and this should be within the next few years), governments will have to get together to agree to cut back on those processes which release greenhouse gases. These agreements might range from reductions in consumption of energy from burning fossil fuels (one means to achieve this might be to impose a carbon 'tax' on fuels causing the problem proportionate to the carbon dioxide they emit in order to encourage consumers to turn to less polluting forms of energy) to strategies for halting the destruction of the rain forests and help for less developed countries to invest in non-polluting forms of energy production.

These are major issues which will need the most determined and effective international political leadership. One major area where we want to advance international co-operation further is in costing global environmental damage. We are funding a programme of research in this country designed to quantify environmental damage as an element in national balance sheets. At present the environmental costs of global pollution are 'externalised'. They are costs to be paid for by future generations. When rain forests are cut down and the timber exported, this results in a credit to the balance sheet of the country concerned. The 'debit' in the form of environmental damage is hidden but will be paid for by that country and the world in years to come. The debit is not quantified now in national balance sheets but it should be if governments are to make informed judgements about whether to pursue policies of that sort. This takes the principle of 'the polluter pays' to a more sophisticated level. When the process of climatic change is more clearly understood, the same principles will have to be brought to bear on emissions of carbon dioxide and other greenhouse gases.

We are a long way from understanding the nature of the problem we face, and we have to keep an open mind about the appropriate responses. At the grimmest end of the scientific prognosis this problem makes all other environmental issues pale into the background. I would be the first to say that party political beliefs of any sort should not be allowed to stand in the way of effective action. However, the principles I have outlined in this pamphlet, which have always underpinned Conservative

policies at the level of local and regional pollution, provide us, I believe, with a sensible starting point. To sum up, these are:

- The principle of the separation of public interest in pollution control and regulation from the practice of production. At an international level governments across the world will have to agree to regulate pollution by producers in their own countries.
- The principle that the polluter, i.e. the polluter's customers, must pay. This principle underlies the research into costing global environmental damage.
- The principle of scientific evaluation. Convincing scientific evidence is needed if we are to adopt effective controls and to get agreement internationally.
- The principle of 'best practical environmental option'.
- The principle of international action.
- The emphasis on sustainable development as the only realistic way forward.

At no time in our history has the need for international co-operation been more urgent. The thawing in relations between East and West and the improved prospects for peace in many areas of conflict may, one sincerely hopes produce a situation in which our common interests as a human race can be perceived above national differences.

We have in this country a Prime Minister who has made Britain a real force in world politics and who is looked to by leaders throughout the world for her achievements in turning this country round, a task that seemed impossible in 1979.

The world will need enlightened leaders in all countries. Britain will play its part, often a leading part. This pamphlet explains why that leadership must remain Conservative.

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(1)

PRIME MINISTER

GREENERY

I attach a note from Carolyn Sinclair suggesting that you might make a major speech on countryside and conservation isues; and attaching a draft of the sort of things you might say. She points to an opportunity in December and asks whether you would like her to work up further ideas.

You may not want to commit yourself yet to a major speech in this area but I think it would be a good idea for Carolyn to work up her ideas further. You might also incorporate some of her material in your speech to the Royal Agricultural Show on 3 July. ✓

A speech by you on this subject would I think be taken as a signal of a major change of emphasis in policy. There is a danger that it might be interpreted as simply defensive. Critics may be looking for new initiatives, of which there is little so far in Carolyn's draft. Perhaps Carolyn might explore the possibilities for new initiatives in this field which you could announce.

Do you agree to:

- Carolyn working up further ideas? ✓
- looking at incorporating some of her material into the Royal Agricultural Show speech? Some
- her looking at the scope for new initiatives? Yes
- not making any commitment yet to take on a speech on 13 December?

We have plenty of occasions for speeches - perhaps we had better get the speech made up first. We shall have the new Control of Pollution Bill

CAROLINE SLOCOCK
16 June 1989
DS2AQY

PRIME MINISTER 16 June 1989

GREENERY

Your speech last autumn to the Royal Society was widely welcomed as underlining your personal concern about environmental matters. Since then, your interest in climatic change has been amply demonstrated. But those interested in the countryside and conservation ask when you are going to make a parallel statement about these matters. They wonder if your interest extends beyond the macro to the micro level of green issues.

Most people are interested in the environment around them now. For those who live in, or visit, the countryside, this includes:

- the effects of intensive agriculture on the landscape, flora, fauna, fish and waterways;

- the effects of other kinds of development, notably new housing, in the countryside;

- access to the countryside (particularly, after privatisation, access to land now owned by the water boards).

There is a growing number of people with an interest in these matters. Many of them live in towns and cities, but visit the countryside for pleasure. At the same time, the composition of the rural population is changing. More and more articulate people, be they computer experts or retired businessmen, are moving into the countryside and expressing their own view of countryside interests.

The press have cottoned on to the fact that environmental issues are good business. The serious papers have all got environmental correspondents. Alarm stories make the

best copy, so people are regularly fed with a litany of woe about damage to the countryside, to birds, animals, flowers, waterways (and recently beaches). Brian Redhead writes regularly in this vein in "Country Living". A recent Labour Party political broadcast featured "England's green and pleasant land" very prominently.

It is right that people should be made more aware of man's potential to damage the environment irreversibly. It is wrong that they should gain the impression, as the result of a barrage from the media, that everything is getting worse. It is not. In many areas it is beginning to get better, and the Government can claim credit for this.

There are strong arguments for you putting the record straight and demonstrating your personal interest in the "micro" issues of greenery. The aim would be to affirm the Government's commitment to preserving all that is best in the countryside, while recognising the inevitability of change.

There is a European issue which is causing considerable concern in rural areas. Those interested in field sports are greatly exercised about the combined effect of several EC draft directives on the traditional management of game in the UK. This has maintained a careful balance, and has prevented the kind of indiscriminate shooting of birds which has occurred in some EC countries (resulting, of course, in pressure for blanket protection). Whatever view is taken of blood sports, conservationists broadly agree that the game management techniques used in the UK have helped to preserve the natural habitat for wildlife. Without this economic spur to conservation, it is likely that more areas of the countryside would have gone under the plough, or been given over to intensive grazing by sheep.

Attached is an outline of the kind of material you could use in a speech on the countryside. It could have considerable impact (witness your Royal Society speech).

There is no very obvious countryside occasion in your diary this year (your speech to the Royal Show in July will presumably focus more narrowly on agriculture). One possibility might be for you to give a speech at the Conference in the Queen Elizabeth II Centre on 13 December marking the fortieth anniversary of the legislation creating National Parks. Nicholas Ridley is currently slated for this. The only problem is that mid-December is a busy time in your diary.

Would you like us to do further work on these ideas?

CAROLYN SINCLAIR

FUTURE OF THE COUNTRYSIDE

The future of the countryside is being discussed as never before. More and more people want to live there. Between 1961 and 1981 the population in rural areas increased by 30 per cent in England and Wales. More and more people own cars and visit the countryside regularly - 18 million on a typical summer Sunday.

At the same time, there is growing awareness that much of what we value in the countryside is fragile. Careless development, including agricultural and forestry development, can cause serious damage to landscape, flora and fauna. Sometimes the damage is irreversible. Even where it can be reversed, the process is often slow, expensive and painstaking. We should not be building up an impossibly expensive repair bill for the next generation.

THE NEED FOR CAREFULLY MANAGED CHANGE

The current debate sometimes appears as conflict between those who want to develop in the countryside - farmers, forestry owners, housebuilders, businessmen - and those who want to prevent change.

The answer is that there need not be conflict, though creative friction will stimulate careful development. And those who think that the countryside is, or should be, an unchanging place do not know their history.

Our present landscape reflects economic development in the past. Change is the stuff of life in the countryside just as it is everywhere else. What is new is the pace of change, and the drastic effect it can have on our surroundings and wildlife. Man's capacity to affect his environment is now many times greater than it was in all previous centuries.

The challenge is thus to manage development in a way which safeguards the environment. While there is no room for complacency, we are beginning to make some progress in this direction. Some species have been reintroduced-the sea eagle and the large blue butterfly. The increased public concern about what is happening in the countryside reflects greater awareness rather than a faster rate of damage. This greater awareness is partly a result of Government action to preserve the environment. By acting the Government often draws people's attention to the fact that a problem exists.

THE NEW APPROACH TO AGRICULTURE

Farmers and landowners are increasingly alive to environmental considerations. At the same time the imperative behind agriculture has changed. The drive for ever more food production is over. This gives a real opportunity to reassess land use, and find sources of income for farmers which will enable them to manage their land in a way which will enable our children and grandchildren to enjoy what we have inherited. The Government is encouraging this process in a number of ways.

The set aside scheme enables farmers to keep fallow land in good condition. Set aside is not about paying farmers to neglect land while retaining legal ownership. Set aside land will still be tended, and the payments reflect the wider public interest in a managed landscape.

More recently, a system of further incentives has been introduced to encourage farmers to use set aside land for nature conservation or recreation, providing access or enhancing the landscape.

Another important initiative has been the establishment of Environmentally Sensitive Areas. In these areas farmers are paid an annual sum to follow environmentally friendly practices. The concept was pioneered in the UK, but has now been adopted within the European Community.

The new Farm and Conservation Grant Scheme directs capital grants to conservation rather than increased production. Farmers will be given financial help towards the cost of retaining key landscape features such as stone-roofed barns, and copses of native trees. They will also get grants towards the cost of pollution control measures such as modern slurry pits.

Increasingly the thrust of payments to farmers is to support sustainable development on the land. We now pay farmers to plant hedges, not to dig them up.

ENCOURAGING THE RIGHT KIND OF FORESTRY

The Government's policies for encouraging the right type of forestry help farmers and landowners to diversify their sources of income while leaving a rich inheritance for later generations. Forestry gained a bad name in recent years through the blanket planting of conifers in the upland areas of Britain. The new schemes of support aim to promote the planting of native broadleaved trees in lowland areas.

The need for this was given added urgency by the Great Storm of 1987. We have made £25 million available to help restore the damage to the landscape left in the storm's wake.

We are encouraging the planting of native woodlands for a variety of reasons. To enhance the landscape. To help - albeit in a small way - to absorb the emissions of carbon dioxide which threaten us with global warming. To provide more of the country's timber needs - currently we produce only [ ] per cent of the timber we use. Last, but not least, to provide the cover needed by many of our native wildlife species.

These aims are reflected in the design of the Woodland Grant Scheme introduced last year. For the first time it is no longer necessary, in order to claim the grant, for timber production to be the primary purpose of planting. Encouragement of wildlife and recreational uses both qualify.

Forestry is an important alternative use of farmland. The Farm Woodland Scheme aims to encourage the planting of 36,000 hectares with mainly broad-leaved trees within three years. Such measures will help to restore a landscape which suffered as a result of Dutch Elm disease and the Great Storm.

Forestry can enrich the life of all of our population, particularly the lives of city dwellers and their children. Is it surprising that so many fairy stories have a woodland setting? Woods can be magical: dappled with flowers and rustling with secret bird and animal life. The Countryside Commission are working to promote the development of woodlands on urban fringes, to bring this magic closer to town children. Their most exciting idea is the planting of a vast new forest in the Midlands.

The Government's policies are designed to give the right signals to farmers and landowners. There are no longer any grants to encourage production at the cost of the environment. The way is open for entrepreneurial owners of land to find new sources of income which do not damage the environment. One possibility could be recreational use of land adjoining canals.

THE GOVERNMENT'S RECORD

The Government's commitment to preserve the richness and variety of our countryside cannot be in doubt. It was the Conservative Government which introduced the Wildlife and Countryside Act in 1981 to provide a framework for the protection of wildlife species and wildlife sites.

We are creating a National Rivers Authority to ensure clean water for drinking and recreational use. There is much to be done to improve water quality after the years of under-investment in the 1970s.

We are committed to maintaining the National Park system, and protecting Areas of Outstanding Natural Beauty. In addition to encouraging tree planting, we have invited the Nature Conservancy Council to propose ways of regenerating heather in the upland regions.

GAME MANAGEMENT, CONSERVATION AND THE EC

It sometimes surprises people to learn that the traditional management of game in this country has contributed in no small way to preserving habitat for wildlife. Without the economic return from field sports, more land would have gone under the plough or been subject to intensive grazing by sheep. Whether people choose to practise field sports is a matter for them. But we are determined that those who wish to do so can continue to practise the carefully developed management techniques which have served us well over decades. We see no need for the UK to be pushed into an EC straitjacket which is not appropriate to our circumstances.

WATER PRIVATISATION AND ACCESS TO THE COUNTRYSIDE

It is hardly surprising that a Conservative Government wants to conserve what is best. But this is sometimes questioned - for example, in the case of access to water authorities' land after privatisation.

It is suggested that private water companies will deny access to the land they hold. In fact they will not be able to do this. The Bill for water privatisation will put water companies under a duty to manage all their land with an eye to conservation and care. They must allow the public access to their land, and recreational use of it.

It is then argued that this is all very well, but what happens if water companies sell off some of the beautiful land which they own? If this happens access may be denied to the public.

Here we are proposing more stringent safeguards than exist now. The [Bill] [Act] providing for water privatisation will require water companies to obtain the Secretary of State's approval before they sell any land. Where the land is in a national park, or an Area of Outstanding Natural Beauty, the Secretary of State will be able to impose covenants on the land preserving access, or require that it be offered to a conservation body. It is not necessary to have public ownership to ensure public access.

THE INEVITABILITY OF CHANGE IN THE COUNTRYSIDE

To those who argue that the Government is the developer's friend and no friend to the countryside, I would say look at our record, and look around you. The land area of Britain remains overwhelmingly rural.

But the preservation of the countryside cannot and should not be preservation in aspic People have moved about the countryside for hundreds of years, seeking a better future for themselves and their children. In the mid-nineteenth century people left rural areas to seek work in the industrial towns. Now the flow is from town to country.

There is room to accommodate all who want to live in the countryside - whether young couples who want to bring up their children in the freedom and space the countryside can offer, older people retiring to the peace of the countryside, or even towns, people wanting to escape at weekends. I cannot see how the party which stands for freedom of choice can deny people the right to live where they choose.

RURAL HOUSING

But the current changes in the countryside raise issues of deep concern to many people. A particular worry is that rising house prices, fuelled by prosperous incomers, will make it impossible for local young people to find housing in rural areas.

The Government recognises the importance of ensuring a supply of low cost housing in the countryside. We want to tap private initiative and private investment. We have put some public sector money upfront to get the process going.

We believe that rural housing associations have a key rule to play. We have therefore:

- almost trebled the funding of the National Agricultural Centre Rural Trust to encourage rural communities to establish, or bring in, housing associations;

- increased Housing Corporation funding for rural schemes;

- introduced tax changes designed to encourage gifts of land and buildings to housing associations.

Ultimately the key to the provision of low cost housing lies in local attitudes expressed through the planning system. We have introduced planning changes which will allow the release of small pockets of additional land for low cost housing to meet local needs. It is now up to those who live in the countryside to decide how to react. It is very encouraging that in many villages and rural areas people are prepared to take a much less restrictive attitude to housing development for local people. Such attitudes will do as much as anything to bring decent rural housing within affordable reach.

The result will be change: for example, some new houses at the edges of villages, or tucked behind a copse; perhaps whole new villages on land no longer needed for agricultural production. This will not be something new for the countryside. The density of splendid old churches in Norfolk reminds us of the density of population which once lived in that most fertile of counties.

To some, development has become a dirty word when it applies to the countryside. This has not been so in the past, and it need not be so now. Not all beautiful villages have grown up organically. Some of the most attractive - Milton Abbas in Dorset, Harewood in Yorkshire and Blanchland in Northumberland - were created at a stroke in the eighteenth century. The challenge for today's architects and planners is to produce housing which is attractive, and in tune with local surroundings.

CONCLUSION

Carefully managed change will invigorate rural communities. With care and thought, the development needed to provide homes and jobs can be combined with careful stewardship of our precious inheritance of landscape and wildlife. We know so much more than we used to. We can use that knowledge to preserve and foster what man has not created, as well as to maintain man-made beauties, and invent new ones.

Perhaps our vision of the countryside is dogged by the Arcadian idyll - a recurring theme in English literature. As a nation we do not much like new things. It is therefore not surprising that time and again the image of the countryside as an unchanging place has caught the national imagination.

The truth is somewhat different. The Arcadian idyll was dreamt up by poets, not ploughmen. The nineteenth century paintings of rural scenes which are currently so much in

vogue conceal the wretchedness, damp, squalor and disease which were rife in those oh so charming cottages. Who would deny that rural life has changed immeasurably for the better since then, particularly during the second half of this century?

We should have confidence in our ability to manage change. We have accommodated a significant shift of population into rural areas over the last thirty years. We have begun to reverse the decline in the richness of our landscape and wildlife. Our countryside has a great future - as a home for many, and as a place of recreation and enjoyment for even more. It is one of our greatest national assets, and as such deserves to be enjoyed by as many people as possible.

PRIME MINISTER 16 June 1989

GREENERY

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- access to the countryside (particularly, after privatisation, access to land now owned by the water boards).

There is a growing number of people with an interest in these matters. Many of them live in towns and cities, but visit the countryside for pleasure. At the same time, the composition of the rural population is changing. More and more articulate people, be they computer experts or retired businessmen, are moving into the countryside and expressing their own view of countryside interests.

The press have cottoned on to the fact that environmental issues are good business. The serious papers have all got environmental correspondents. Alarm stories make the

best copy, so people are regularly fed with a litany of woe about damage to the countryside, to birds, animals, flowers, waterways (and recently beaches). Brian Redhead writes regularly in this vein in "Country Living". A recent Labour Party political broadcast featured "England's green and pleasant land" very prominently.

It is right that people should be made more aware of man's potential to damage the environment irreversibly. It is wrong that they should gain the impression, as the result of a barrage from the media, that everything is getting worse. It is not. In many areas it is beginning to get better, and the Government can claim credit for this.

There are strong arguments for you putting the record straight and demonstrating your personal interest in the "micro" issues of greenery. The aim would be to affirm the Government's commitment to preserving all that is best in the countryside, while recognising the inevitability of change.

There is a European issue which is causing considerable concern in rural areas. Those interested in field sports are greatly exercised about the combined effect of several EC draft directives on the traditional management of game in the UK. This has maintained a careful balance, and has prevented the kind of indiscriminate shooting of birds which has occurred in some EC countries (resulting, of course, in pressure for blanket protection). Whatever view is taken of blood sports, conservationists broadly agree that the game management techniques used in the UK have helped to preserve the natural habitat for wildlife. Without this economic spur to conservation, it is likely that more areas of the countryside would have gone under the plough, or been given over to intensive grazing by sheep.

Attached is an outline of the kind of material you could use in a speech on the countryside. It could have considerable impact (witness your Royal Society speech).

There is no very obvious countryside occasion in your diary this year (your speech to the Royal Show in July will presumably focus more narrowly on agriculture). One possibility might be for you to give a speech at the Conference in the Queen Elizabeth II Centre on 13 December marking the fortieth anniversary of the legislation creating National Parks. Nicholas Ridley is currently slated for this. The only problem is that mid-December is a busy time in your diary.

Would you like us to do further work on these ideas?

CAROLYN SINCLAIR

FUTURE OF THE COUNTRYSIDE

The future of the countryside is being discussed as never before. More and more people want to live there. Between 1961 and 1981 the population in rural areas increased by 30 per cent in England and Wales. More and more people own cars and visit the countryside regularly - 18 million on a typical summer Sunday.

At the same time, there is growing awareness that much of what we value in the countryside is fragile. Careless development, including agricultural and forestry development, can cause serious damage to landscape, flora and fauna. Sometimes the damage is irreversible. Even where it can be reversed, the process is often slow, expensive and painstaking. We should not be building up an impossibly expensive repair bill for the next generation.

THE NEED FOR CAREFULLY MANAGED CHANGE

The current debate sometimes appears as conflict between those who want to develop in the countryside - farmers, forestry owners, housebuilders, businessmen - and those who want to prevent change.

The answer is that there need not be conflict, though creative friction will stimulate careful development. And those who think that the countryside is, or should be, an unchanging place do not know their history.

Our present landscape reflects economic development in the past. Change is the stuff of life in the countryside just as it is everywhere else. What is new is the pace of change, and the drastic effect it can have on our surroundings and wildlife. Man's capacity to affect his environment is now many times greater than it was in all previous centuries.

The challenge is thus to manage development in a way which safeguards the environment. While there is no room for complacency, we are beginning to make some progress in this direction. Some species have been reintroduced-the sea eagle and the large blue butterfly. The increased public concern about what is happening in the countryside reflects greater awareness rather than a faster rate of damage. This greater awareness is partly a result of Government action to preserve the environment. By acting the Government often draws people's attention to the fact that a problem exists.

THE NEW APPROACH TO AGRICULTURE

Farmers and landowners are increasingly alive to environmental considerations. At the same time the imperative behind agriculture has changed. The drive for ever more food production is over. This gives a real opportunity to reassess land use, and find sources of income for farmers which will enable them to manage their land in a way which will enable our children and grandchildren to enjoy what we have inherited. The Government is encouraging this process in a number of ways.

The set aside scheme enables farmers to keep fallow land in good condition. Set aside is not about paying farmers to neglect land while retaining legal ownership. Set aside land will still be tended, and the payments reflect the wider public interest in a managed landscape.

More recently, a system of further incentives has been introduced to encourage farmers to use set aside land for nature conservation or recreation, providing access or enhancing the landscape.

Another important initiative has been the establishment of Environmentally Sensitive Areas. In these areas farmers are paid an annual sum to follow environmentally friendly practices. The concept was pioneered in the UK, but has now been adopted within the European Community.

The new Farm and Conservation Grant Scheme directs capital grants to conservation rather than increased production. Farmers will be given financial help towards the cost of retaining key landscape features such as stone-roofed barns, and copses of native trees. They will also get grants towards the cost of pollution control measures such as modern slurry pits.

Increasingly the thrust of payments to farmers is to support sustainable development on the land. We now pay farmers to plant hedges, not to dig them up.

ENCOURAGING THE RIGHT KIND OF FORESTRY

The Government's policies for encouraging the right type of forestry help farmers and landowners to diversify their sources of income while leaving a rich inheritance for later generations. Forestry gained a bad name in recent years through the blanket planting of conifers in the upland areas of Britain. The new schemes of support aim to promote the planting of native broadleaved trees in lowland areas.

The need for this was given added urgency by the Great Storm of 1987. We have made £25 million available to help restore the damage to the landscape left in the storm's wake.

We are encouraging the planting of native woodlands for a variety of reasons. To enhance the landscape. To help - albeit in a small way - to absorb the emissions of carbon dioxide which threaten us with global warming. To provide more of the country's timber needs - currently we produce only [ ] per cent of the timber we use. Last, but not least, to provide the cover needed by many of our native wildlife species.

These aims are reflected in the design of the Woodland Grant Scheme introduced last year. For the first time it is no longer necessary, in order to claim the grant, for timber production to be the primary purpose of planting. Encouragement of wildlife and recreational uses both qualify.

Forestry is an important alternative use of farmland. The Farm Woodland Scheme aims to encourage the planting of 36,000 hectares with mainly broad-leaved trees within three years. Such measures will help to restore a landscape which suffered as a result of Dutch Elm disease and the Great Storm.

Forestry can enrich the life of all of our population, particularly the lives of city dwellers and their children. Is it surprising that so many fairy stories have a woodland setting? Woods can be magical: dappled with flowers and rustling with secret bird and animal life. The Countryside Commission are working to promote the development of woodlands on urban fringes, to bring this magic closer to town children. Their most exciting idea is the planting of a vast new forest in the Midlands.

The Government's policies are designed to give the right signals to farmers and landowners. There are no longer any grants to encourage production at the cost of the environment. The way is open for entrepreneurial owners of land to find new sources of income which do not damage the environment. One possibility could be recreational use of land adjoining canals.

THE GOVERNMENT'S RECORD

The Government's commitment to preserve the richness and variety of our countryside cannot be in doubt. It was the Conservative Government which introduced the Wildlife and Countryside Act in 1981 to provide a framework for the protection of wildlife species and wildlife sites.

We are creating a National Rivers Authority to ensure clean water for drinking and recreational use. There is much to be done to improve water quality after the years of under-investment in the 1970s.

We are committed to maintaining the National Park system, and protecting Areas of Outstanding Natural Beauty. In addition to encouraging tree planting, we have invited the Nature Conservancy Council to propose ways of regenerating heather in the upland regions.

GAME MANAGEMENT, CONSERVATION AND THE EC

It sometimes surprises people to learn that the traditional management of game in this country has contributed in no small way to preserving habitat for wildlife. Without the economic return from field sports, more land would have gone under the plough or been subject to intensive grazing by sheep. Whether people choose to practise field sports is a matter for them. But we are determined that those who wish to do so can continue to practise the carefully developed management techniques which have served us well over decades. We see no need for the UK to be pushed into an EC straitjacket which is not appropriate to our circumstances.

WATER PRIVATISATION AND ACCESS TO THE COUNTRYSIDE

It is hardly surprising that a Conservative Government wants to conserve what is best. But this is sometimes questioned - for example, in the case of access to water authorities' land after privatisation.

It is suggested that private water companies will deny access to the land they hold. In fact they will not be able to do this. The Bill for water privatisation will put water companies under a duty to manage all their land with an eye to conservation and care. They must allow the public access to their land, and recreational use of it.

It is then argued that this is all very well, but what happens if water companies sell off some of the beautiful land which they own? If this happens access may be denied to the public.

Here we are proposing more stringent safeguards than exist now. The [Bill] [Act] providing for water privatisation will require water companies to obtain the Secretary of State's approval before they sell <u>any</u> land. Where the land is in a national park, or an Area of Outstanding Natural Beauty, the Secretary of State will be able to impose covenants on the land preserving access, or require that it be offered to a conservation body. It is not necessary to have public ownership to ensure public access.

<u>THE INEVITABILITY OF CHANGE IN THE COUNTRYSIDE</u>

To those who argue that the Government is the developer's friend and no friend to the countryside, I would say look at our record, and look around you. The land area of Britain remains overwhelmingly rural.

But the preservation of the countryside cannot and should not be preservation in aspic People have moved about the countryside for hundreds of years, seeking a better future for themselves and their children. In the mid-nineteenth century people left rural areas to seek work in the industrial towns. Now the flow is from town to country.

There is room to accommodate all who want to live in the countryside - whether young couples who want to bring up their children in the freedom and space the countryside can offer, older people retiring to the peace of the countryside, or even towns~~,~~ people wanting to escape at weekends. I cannot see how the party which stands for freedom of choice can deny people the right to live where they choose.

RURAL HOUSING

But the current changes in the countryside raise issues of deep concern to many people. A particular worry is that rising house prices, fuelled by prosperous incomers, will make it impossible for local young people to find housing in rural areas.

The Government recognises the importance of ensuring a supply of low cost housing in the countryside. We want to tap private initiative and private investment. We have put some public sector money upfront to get the process going.

We believe that rural housing associations have a key rule to play. We have therefore:

- almost trebled the funding of the National Agricultural Centre Rural Trust to encourage rural communities to establish, or bring in, housing associations;

- increased Housing Corporation funding for rural schemes;

- introduced tax changes designed to encourage gifts of land and buildings to housing associations.

Ultimately the key to the provision of low cost housing lies in local attitudes expressed through the planning system. We have introduced planning changes which will allow the release of small pockets of additional land for low cost housing to meet local needs. It is now up to those who live in the countryside to decide how to react. It is very encouraging that in many villages and rural areas people are prepared to take a much less restrictive attitude to housing development for local people. Such attitudes will do as much as anything to bring decent rural housing within affordable reach.

The result will be change: for example, some new houses at the edges of villages, or tucked behind a copse; perhaps whole new villages on land no longer needed for agricultural production. This will not be something new for the countryside. The density of splendid old churches in Norfolk reminds us of the density of population which once lived in that most fertile of counties.

To some, development has become a dirty word when it applies to the countryside. This has not been so in the past, and it need not be so now. Not all beautiful villages have grown up organically. Some of the most attractive - Milton Abbas in Dorset, Harewood in Yorkshire and Blanchland in Northumberland - were created at a stroke in the eighteenth century. The challenge for today's architects and planners is to produce housing which is attractive, and in tune with local surroundings.

CONCLUSION

Carefully managed change will invigorate rural communities. With care and thought, the development needed to provide homes and jobs can be combined with careful stewardship of our precious inheritance of landscape and wildlife. We know so much more than we used to. We can use that knowledge to preserve and foster what man has not created, as well as to maintain man-made beauties, and invent new ones.

Perhaps our vision of the countryside is dogged by the Arcadian idyll - a recurring theme in English literature. As a nation we do not much like new things. It is therefore not surprising that time and again the image of the countryside as an unchanging place has caught the national imagination.

The truth is somewhat different. The Arcadian idyll was dreamt up by poets, not ploughmen. The nineteenth century paintings of rural scenes which are currently so much in

vogue conceal the wretchedness, damp, squalor and disease which were rife in those oh so charming cottages. Who would deny that rural life has changed immeasurably for the better since then, particularly during the second half of this century?

We should have confidence in our ability to manage change. We have accommodated a significant shift of population into rural areas over the last thirty years. We have begun to reverse the decline in the richness of our landscape and wildlife. Our countryside has a great future - as a home for many, and as a place of recreation and enjoyment for even more. It is one of our greatest national assets, and as such deserves to be enjoyed by as many people as possible.

(1)

PRIME MINISTER

GREENERY

I attach a note from Carolyn Sinclair suggesting that you might make a major speech on countryside and conservation isues; and attaching a draft of the sort of things you might say. She points to an opportunity in December and asks whether you would like her to work up further ideas.

You may not want to commit yourself yet to a major speech in this area but I think it would be a good idea for Carolyn to work up her ideas further. You might also incorporate some of her material in your speech to the Royal Agricultural Show on 3 July.

A speech by you on this subject would I think be taken as a signal of a major change of emphasis in policy. There is a danger that it might be interpreted as simply defensive. Critics may be looking for new initiatives, of which there is little so far in Carolyn's draft. Perhaps Carolyn might explore the possibilities for new initiatives in this field which you could announce.

Do you agree to:

- Carolyn working up further ideas? ✓
- looking at incorporating some of her material into the Royal Agricultural Show speech? Some
- her looking at the scope for new initiatives? Yes
- not making any commitment yet to take on a speech on 13 December? We have plenty of occasions for speeches - perhaps we had better get the speech made up first. We shall have the new Control of Pollution Bill in 1989 - November not

CAROLINE SLOCOCK
16 June 1989
DS2AQY

CONFIDENTIAL

10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

13 June 1989

CLEAN AIR

I enclose a copy of a message to the Prime Minister from President Bush about the new Clean Air Legislation which he is sending to Congress. It would be helpful to know in due course whether a reply is appropriate.

The Foreign and Commonwealth Office will want to note particularly the last paragraph which deals with Vietnamese Boat people.

I am copying this letter and enclosure to Stephen Wall (Foreign and Commonwealth Office), Alex Allan (H.M. Treasury) and to Trevor Woolley (Cabinet Office).

CHARLES POWELL

Rogert Bright, Esq.,
Department of the Environment.

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The National Archives

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10 DOWNING STREET

LONDON SW1A 2AA

From the Private Secretary

7 June 1989

Dear Roger.

GLOBAL CLIMATE CHANGE

The Prime Minister has considered the Environment Secretary's minute of 6 June setting out the latest position on a global climate change convention and dealing with the forthcoming meeting of the EC Environment Ministers' Council. She is in general content with the line which it is proposed Lord Caithness should take at the Council. We should be vigilant for any attempts to extend Community competence in this area and prepared to speak up strongly if necessary. She agrees that it would be useful for Lord Caithness to try to obtain further reference in the draft resolution to the Community and member states being involved in the international debate, together with a formal reference to Article 130R. We should also exercise particular care that the resolution is not used as an excuse to push forward the boundaries of the Commission's involvement in environmental research or to subordinate our own research programme to that of the Commission.

I am copying this letter to Stephen Wall (Foreign and Commonwealth Office), Neil Thornton (Department of Trade and Industry), Stephen Haddrill (Department of Energy), Shirley Stagg (Ministry of Agriculture, Fisheries and Food), Tom Jeffery (Department of Education and Science), Roy Griffins (Department of Transport), Carys Evans (Chief Secretary's Office), Myles Wickstead (Overseas Development Administration) and to Sir Robin Butler.

Yours ever,

Charles Powell

C. D. POWELL

Roger Bright, Esq.
Department of the Environment

12816

THE U.K. CENTRE FOR ECONOMIC AND ENVIRONMENTAL DEVELOPMENT

CEED
12 UPPER BELGRAVE STREET
LONDON SW1X 8BA ENGLAND
TELEPHONE: 01-245 6440/1

Dominic Morris Esq
The Private Secretary to
the Prime Minister
10 Downing Street
London
SW1A 2AA

6th June 1989

Dear Dominic

pp's Prof Pitt 18.00

This is to confirm that I am expecting to meet the Prime Minister at ~~17.30~~ on 21st June. The week before I will send you a one-page note of some points which I would like to cover.

Best wishes

Yours sincerely

David R Cope
Director

ENU AFFAIRS : Aira Rain PTL.

(1)

PRIME MINISTER

GLOBAL CLIMATE CHANGE

I attach a minute from the Environment Secretary about the latest position on the global climate change convention. There is nothing controversial in this. But the minute also deals with the forthcoming meeting of the EC Environment Ministers Council, which will consider a draft resolution on the green house effect. The resolution and the supporting Articles of the Treaty are attached to Mr Ridley's minute.

There are three aspects of the resolution which we need to approach with care. As you will see from their attached note, the Policy Unit have misgivings about them. They are:

- the question of Community competence. There is already Community competence in this area under article 130 of the Treaty (attached). This gives the Commission a specific role but ensures first that decisions are by unanimity and second that competence is shared between the Community and the Member States. Mr Ridley believes that we have now got sufficient recognition of this mixed competence in the text of the resolution but - in response to the Policy Unit's justified concern - agrees that Lord Caithness will try to ensure further reference to the Community and Member States being involved in the international debate, together with a reference to Article 130R.

- equally, we do not want the resolution to have the effect of extending Commission competence in the area of environmental research (once again, they have some competence already under Articles 130G and H). The Policy Unit have suggested that the final clause of paragraph 9 of the resolution should be omitted, because it talks about the need to co-ordinate "the relevant activities" of Member States within the framework of the Commission's programme. But in fact

it only mirrors the wording of Article 130H, and Mr Ridley's conclusion is that it does not pose any additional threat to our position. Reopening the text might land us with something worse.

- the Policy Unit note points out that the resolution calls for a "substantial policy options study programme" and by the Commission. This is, in fact, fully within the Commission's rights under the Treaty article and we cannot actually stop them. Mr Ridley doubts that it will amount to much.

In general, we are not starting from a blank sheet but from a situation in which the Commission have certain powers and there is a degree of Community competence in this area. We cannot take that back, but equally must fight any attempt to extend it further. The Policy Unit's note performs a useful service in drawing attention to the danger areas. Mr Ridley is now fully on notice of these and I think you can agree to the line which he proposes Lord Caithness should take, with a general warning to be vigilant and assertive if necessary. Agree?

Yes

C.D.P.

Charles Powell

6 June 1989

MJ2DSE

ARTICLE 130G

In pursuing these objectives the Community shall carry out the following activities, complementing the activities carried out in the Member States:

(*a*) implementation of research, technological development and demonstration programmes, by promoting co-operation with undertakings, research centres and universities;

(*b*) promotion of co-operation in the field of Community research, technological development and demonstration with third countries and international organizations;

(*c*) dissemination and optimization of the results of activities in Community research, technological development and demonstration;

(*d*) stimulation of the training and mobility of researchers in the Community.

ARTICLE 130H

Member States shall, in liaison with the Commission, co-ordinate among themselves the policies and programmes carried out at national level. In close contact with the Member States, the Commission may take any useful initiative to promote such co-ordination.

Sub-Section VI—Environment

ARTICLE 25

A Title VII shall be added to Part Three of the EEC Treaty reading as follows:

"TITLE VII

ENVIRONMENT

ARTICLE 130R

1. Action by the Community relating to the environment shall have the following objectives:

—to preserve, protect and improve the quality of the environment;

—to contribute towards protecting human health;

—to ensure a prudent and rational utilization of natural resources.

2. Action by the Community relating to the environment shall be based on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source, and that the polluter should pay. Environmental protection requirements shall be a component of the Community's other policies.

3. In preparing its action relating to the environment, the Community shall take account of:

—available scientific and technical data;

—environmental conditions in the various regions of the Community;

—the potential benefits and costs of action or of lack of action;

—the economic and social development of the Community as a whole and the balanced development of its regions.

4. The Community shall take action relating to the environment to the extent to which the objectives referred to in paragraph 1 can be attained better at Community level than at the level of the individual Member States. Without prejudice to certain measures of a Community nature, the Member States shall finance and implement the other measures.

5. Within their respective spheres of competence, the Community and the Member States shall co-operate with third countries and with the relevant international organizations. The arrangements for Community co-operation may be the subject of agreements between the Community and the third parties concerned, which shall be negotiated and concluded in accordance with Article 228.

The previous paragraph shall be without prejudice to Member States' competence to negotiate in international bodies and to conclude international agreements.

ARTICLE 130S

The Council, acting unanimously on a proposal from the Commission and after consulting the European Parliament and the Economic and Social Committee, shall decide what action is to be taken by the Community.

The Council shall, under the conditions laid down in the preceding subparagraph, define those matters on which decisions are to be taken by a qualified majority.

ARTICLE 130T

The protective measures adopted in common pursuant to Article 130S shall not prevent any Member State from maintaining or introducing more stringent protective measures compatible with this Treaty."

PRIME MINISTER

GLOBAL CLIMATE CHANGE

You will wish to know the latest position on a climate change convention following Malcolm Caithness's attendance at the UNEP Governing Council in Nairobi and before the EC Environment Council meeting on 8/9 June.

Malcolm made the first Ministerial statement in Nairobi and set the tone by calling for work to begin on a framework convention on which he won broad support. The United States initially wanted to await the results of the Inter-Governmental Panel on Climate Change (IPCC), which will make an interim report in Autumn 1990, before beginning work on a convention. Most other countries joined us in wanting to move more quickly, but many developing countries were opposed to the US idea that the IPCC should be given responsibility to negotiate a convention as they considered they were not adequately represented on the Panel. The sensible compromise reached was that UNEP together with the World Meteorological Organisation (WMO) should begin preparatory work on a framework convention, using the successful model of the Vienna Convention and Montreal Protocol on protecting the ozone layer, and drawing on the work of the IPCC as this becomes available. The actual negotiations on a Convention will not begin until the IPCC's interim report in 1990.

Before the UNEP Governing Council we were thinking of coming forward publicly with the text of a draft convention. I now consider that this would be premature, given the range of work in this area that the IPCC has to undertake over the next few months. If we do not want to pre-empt the work of UNEP/WMO in the light of the agreement reached in Nairobi and our widely praised support for UNEP demonstrated at the Saving the Ozone

Layer Conference. We are already taking a co-ordinating role within IPCC on determining the legal aspects of a Convention. I believe our lead in these matters will be best maintained by the concerted effort which my and Geoffrey Howe's officials have begun, to discuss the possible content of a convention with other countries, with a view to achieving as large a measure of agreement as possible.

The UNEP Governing Council recommended in the meantime that governments should work to combat deforestation, improve energy efficiency and stabilise and reduce emissions of CO2 and other greenhouse gases. This follows precisely the lines that Malcolm proposed in his message to the Toronto Conference on the Changing Atmosphere last June and which was endorsed by what we heard at your Seminar on 26 April.

We should aim to maintain our position of leadership when the Environment Ministers' Council considers a draft Resolution on the greenhouse effect at its meeting on 8 and 9 June. The draft emphasises the importance of the issue and of the Community and Member States participating in the international debate and taking appropriate action themselves. We have influenced it substantially at official level and it is now broadly acceptable to us. I thought you should know, however, the line Malcolm Caithness proposes to take on this issue at the Council, and I attach a copy of the latest version of the draft resolution.

There may well be efforts by the French (and possibly the Dutch) to seize the lead from us by repeating either the Rocard calls for a new international body with executive powers, or for percentage reduction targets. Our paramount objective must be to see off any such attempt since inclusion of such a formula would be totally unacceptable. I believe we will be able to do so,

provided we do not ourselves try substantially to reopen the drafting: there should be no lack of support for pushing the draft through more or less as it stands.

Officials have looked particularly carefully at Community competence issues in relation to the draft resolution, both in the formal legal sense, and in the sense of avoiding accretion of power and influence by the Commission. The objective is to avoid any expansion of competence beyond that established in the environmental Articles of the Treaty (130 R,S,T). Under these Articles we can insist on unanimity, and they require that dealings with international organisations are by the Community and Member States. I believe we are already about as safe as we can be here but Malcolm intends to intervene in a constructive spirit to ensure a further reference to the Community and Member States being involved in the international debate, and perhaps a formal reference to Article 130R.

On research, similarly, we want no expansion of competence beyond that already built in through Articles 130G and H. In environmental research, our general principle of keeping the Commission to a role of co-ordinating and carrying out limited research to fill gaps has been successful and has worked well where there has been a clear policy objective. We have looked at the case for seeking deletion of the final clause in paragraph 9 of the draft resolution which talks about the need to co-ordinate "the relevant activities" of member states within the framework of the Commission's programme. However, the wording closely mirrors that of Article 130H and, after careful consideration, I have concluded that it poses no threat to our position and that to re-open the issue would only risk our ending up with something much worse. I attach copies of the relevant Treaty articles for ease of reference.

Finally, you will note that the resolution calls for a "substantial policy options study programme". Although this may sound disturbing the Commission is within its rights to carry out such a programme - we can't stop them - and I am persuaded that the effect of the resolution will be to influence the study in sensible directions - including highlighting the nonsense of the gas burn directive, which we want repealed.

I am copying this to Geoffrey Howe, David Young, Cecil Parkinson, John MacGregor, Kenneth Baker, Paul Channon, John Major, Chris Patten and to Sir Robin Butler.

N R

6 June 1989

MR POWELL

5 June 1989

GREENHOUSE EFFECT: DRAFT EUROPEAN COUNCIL RESOLUTION

The attached is being taken at Thursday's Environment Council. Nicholas Ridley will be writing about it to the Prime Minister and colleagues later today. This is in response to Policy Unit concern about the text's implications.

As drafted, it will give a significant boost to Commission involvement in global climate issues. This could well restrict the UK's own freedom of manoeuvre in, for example, the UN. This aspect has not been addressed in the PM's meetings on the subject, where all the emphasis has been on the UK's maintaining its leading, independent role in the world-wide debate.

We have two main concerns:

- it welcomes a "substantial" Commission study-programme. This is to lead to concrete proposals in all the areas of study even including "institutional implications". This is surely code for a Euro-EPA if not Rocard's idea of a world enforcement agency.

- It fails fully to recognise mixed competence between the Community and the Member States in two crucial areas (para 3: revision of Montreal Protocol, and para 11: the general contribution to the wider international debate).

- It subordinates Member States' research programmes to the Commission's own (para 9).

We believe that this text could prove at best an embarrassment, and at worse a serious liability, given the importance the Prime Minister attaches to a vigorous and leading UK contribution to the world debate in the UN and elsewhere. The Commission is clearly itching to get its hands on this subject and the language of the draft is ideally broad from its point of view.

We have to recognise that there is already a measure of Community competence on environmental matters and that we cannot really stop the Commission embarking on studies. But natural caution dictates a very close look at the text to ensure that, while recognising this, our freedom of manoeuvre on research, and as an individual Member of the UN, is not compromised.

We do not think that DOE has looked at it sufficiently from this angle, although the text is much improved on earlier versions. DOE also seems reluctant even to contemplate raising questions on the draft in Council because it has already been so closely examined at working level. But it is better to be firm now, than wise after the event.

Recommendation

We recommend that the Prime Minister might respond to Nicholas Ridley as follows:

- The UK should certainly welcome a Council resolution on the greenhouse effect. There are some good things in it, notably that the Commission should reconsider earlier legislation from this new perspective.

- But we must ensure that the text preserves fully our own freedom of manoeuvre - to conduct our own research programme and on our international activities eg in UNEP.

- We must be prepared to intervene in the Council as strongly as necessary to achieve this.

Specifically:

- References to the 'Community and Member States' should be added explicitly to paras 3 and 11, to preserve the position on mixed competence.

- The last nine words of para 9 must be excluded to avoid subordination of our own research programme to that of the Commission's.

- We should avoid "welcoming" the Commission's study-programme, preferably doing no more than noting it and observing that it looks over-ambitious and may well overlap with what Member States are doing already.

GEORGE GUISE JOHN MILLS

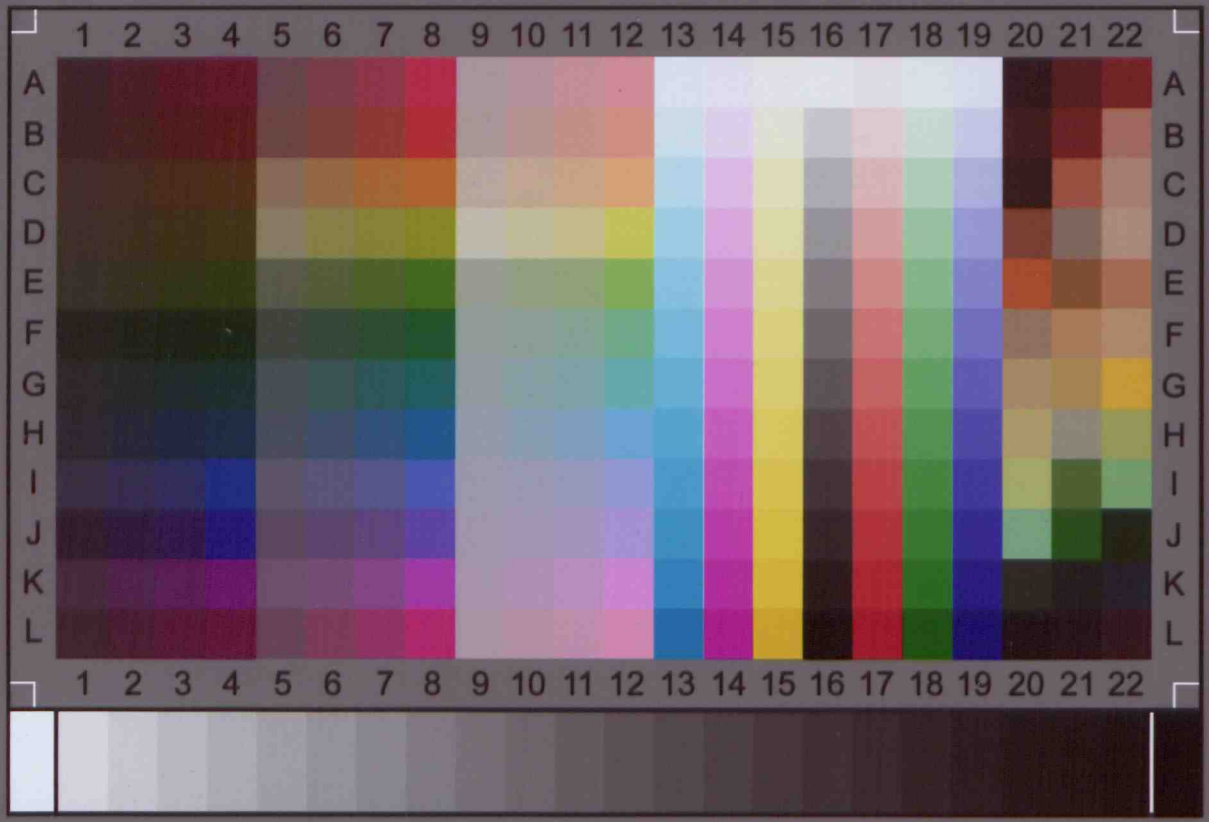
PART 21. ends:-

D. Morris to Cab. Office

26 May 1989.

PART 22. begins:-

PU to COP. 5.6.89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