Senator Chris Puplick

Shadow Minister for the Environment and Arts

NEWS RELEASE

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THE CLIMATE CHALLENGE

The Liberal and National Parties today released Australia's first ever National Climate Policy in an exciting new document entitled "The Climate Challenge".

For the first time, an Australian political party has addressed in a complete and comprehensive sense all the major issues related to the protection of our climate.

This Policy analyses the primary threats to our climate posed by the "greenhouse effect", the destruction of the ozone layer and the pollution, especially the acidification, of the air.

In each case, positive proposals are advanced for halting the continued threats to the atmosphere and proposals are advanced to turn back the processes of destruction wherever possible.

The Policy covers areas as diverse as research funding; the role of the CSIRO; our meteorological services; climate prediction; drought research; forest and reafforestation policies; the promotion of the use of non-fossil fuels; energy conservation; foreign aid policies; the Antarctic; coastal zone management; human health questions; pollution control; natural disaster relief and protection of the National Estate.

The Policy advances a comprehensive national strategy based on the integration of research activities and direct action to reduce greenhouse gases; promote ozone-friendly substitute substances; encourage the use of cleaner fuels; improve energy efficiency; preserve the Earth's forests and give positive national and international leadership.

The Liberal and National Parties recognise the real threats to our Planet which arise from the three prong assault on our atmosphere occurring as a result of global warming, a depleted ozone layer and the increase of acid rain.

In his Federal Council address earlier this month Andrew Peacock pledged positive action to combat this problem. "The Climate Challenge" Policy outlined that framework for positive action.

No climate statement has been so comprehensive as this one. It recognises the need for global action and our commitments in the foreign aid area address this. It recognises the need for national action and our commitments both in terms of money and administrative action address this. It recognises the need for personal action and our policies regarding recycling and energy conservation address this.

This Policy Paper results from the work of numerous Coalition Shadow Ministers and from a specialist taskforce comprising myself, Senator Brownhill and Messrs McGauran, Dobie and Smith.

People in Australia who have rightly expressed concern about various aspects of the threat to our climate will be able to see that these have been addressed in full by the Liberal and National Parties.

Just as we led the public debate in urging the rejection of the Antarctic Minerals Regime while senior Labor Ministers were in favour of its signature, so now we are again giving positive political leadership in an area of real environmental significance. We are getting on with addressing the issues while all Labor can do is address the politics.

"The Climate Challenge" sets the benchmark for public debate in Australia. It challenges the Government to match it. It demands positive action - it demands it now.

ENDS

THE CLIMATE CHALLENGE

A POLICY AND DISCUSSION PAPER

LIBERAL PARTY OF AUSTRALIA

NATIONAL PARTY OF AUSTRALIA

JUNE 1989

LIBERAL

NATIONALS

THE CLIMATE CHALLENGE

A POLICY AND DISCUSSION PAPER

Issued by Senator Chris Puplick,
Shadow Minister for the Environment, June 1989

This Policy and Discussion Paper is issued on behalf of the Liberal and National Parties of Australia. It brings together the formal Policy commitments of the Coalition Parties and indicates the broad strategy to be followed by the next Coalition Government in confronting and responding to the national and international challenges of climatic change. It has been prepared under the direction of the Coalition Parties' Climate Policy Committee:

Senator Chris Puplick *(Chairman),*
Mr Peter McGauran MP *(Deputy Chairman),*
Hon Don Dobie MP,
Senator David Brownhill,
Mr Warwick Smith MP.

June 1989

CLIMATE POLICY

Without a benign atmosphere there can be no life on earth. In past ages, significant changes in the earth's climate have altered substantially the nature and forms of all terrestrial life. Those past changes were however the result of events beyond the control of mankind. By contrast, today most the the threats to our climate and atmosphere result from the activities of the human population.

The Liberal and National Parties are determined to play a leading role in shaping policies both for Australia, and internationally which will minimise adverse impacts on our climate and indeed where possible, repair some of the damage already done.

The three primary threats to our atmosphere involve:

- **global warming of the climate : "the Greenhouse Effect"**
- **depletion of the ozone layer**
- **the pollution and especially acidification of the air.**

GLOBAL WARMING : "THE GREENHOUSE EFFECT"

Over the past 100 years there has been an increase in the globally–averaged temperature of 0.7 degrees Celsius, with projections that in the absence of remedial measures being taken, this could result in the mean surface temperature of the Earth rising between 1.5 and 4.5 degrees Celsius before the middle of next century.

The primary cause of this global warming has been the emission into the atmosphere of so–called "greenhouse gases". These gases, in particular carbon dioxide, methane and nitrous oxide, act to trap heat arising from the surface of the planet, preventing it from escaping through the upper atmosphere and thus creating an effect akin to the heat retention of a traditional greenhouse.

The six warmest years recorded since reliable instrumentation and recording have been available are in this decade (1988, 1987, 1983, 1981, 1980, 1986). Estimates for rises in global sea levels over the last century range from 0.10 to 0.15 metres. Any continuation in such rises in sea levels could have potentially disastrous consequences for many parts of the globe, especially some of the island nations of the South Pacific. (The Maldive Islands in the Indian Ocean could disappear entirely.)

The causes of this global warming are complex, but the table below illustrates the relative contribution of greenhouse gases resulting from man's activities. Clearly carbon dioxide emission, directly related to the growth of industrial society is the major problem and indeed carbon dioxide levels in the atmosphere are now 25 per cent higher than they were in 1860. It should also be noted that simple increases in the world's population, and thus increased levels of human activity, especially in subsistence– economy nations, are themselves a major cause of increased emissions of greenhouse gases, and in particular emissions of methane. Significant amounts of methane are also produced by normal animal activity especially by ruminants and insects like termites.

It can thus be seen that attention must be focused upon issues of deforestation and the burning of fossil fuels if we are to have any impact in reducing levels of greenhouse gases emitted into the atmosphere. Equally, the point should be made that most of the problems of deforestation result from the clearance and burning of native forests for purely subsistence purposes in the world's poorest countries and that in order to address this problem, issues as complex as foreign aid and international loan activities must be taken into account.

Human health may be threatened by any significant warming of the Australian atmosphere. Medical scientists have suggested that the incidence of mosquito–borne viral diseases such as Australian encephalitis, Ross River fever and dengue fever could increase; that a hotter climate could increase problems with respiratory infections (including Legionnaires' disease); asthma and even gastro–intestinal diseases.

Radiative gas	% contribution based on temp rise potential		Principal source
CO_2	50 ± 5%	15 ± 5%	Deforestation and land use
		14%	Petroleum
		10%	Coal
		5%	Natural gas
		6%	Other fuel & processes
Methane	15 ± 5%		Agriculture, cattle, biomass burning, natural gas
C. F. C.s	13 ± 3%		Aerosols, air conditioners, refrigeration, plastics
Ozone	10 ± 5%		Motor vehicles
N_2O	9 ± 2%		Fertilisers, biomass burning motor vehicles fossil fuel burning
Others	3 ± 2%		

Relative contribution of greenhouse gases resulting from man's activities.

In addition to threats to human health, the Greenhouse Effect will lead to significant threats to our physical environment. Primarily this will be seen in the rise of sea–levels world–wide. In Australia, with its vast coastline this is a major threat, with coastal lands in danger of submergence. A threat exists to our Great Barrier Reef where rising sea levels, warming sea temperatures and increased light penetration could destroy the corals themselves. Equally our significant mangrove swamps and coastal wetlands (where vast numbers of significant bird and animal species breed) could be destroyed by rising inundations of sea water. Increased sea temperatures could also compound other problems, for example they will certainly increase the intensity of tropical storms which have potential to do great damage.

In our own region, areas such as the Bight of Bangkok, the delta regions of Bangladesh, Burma and Vietnam are likely to suffer particularly severe damage as a result of rising sea levels and the penetration of salt water upstream into major productive rivers.

Finally it should be noted that any warming of the climate in Australia could have very serious consequences for the production of crops and other agricultural products. Such production could be reduced dramatically thereby affecting our major export–earning industry.

Conversely it must be noted that some commentators have drawn attention to potential "benefits" which may flow from a warming of the climate. These include the ability to grow crops in areas where they previously could not be grown and the development of new products which might be needed to respond to global warming. The South Australian Council on Technological Change is currently studying this question. However these "benefits" are more likely to benefit already richer nations as ecological zones shift away from the Equator. A temperature rise of only two degrees Celsius in the tropics could reduce rice production by more than 10 per cent. Wildlife habitats will also be seriously at risk with further pressures leading to even greater levels of species extinction.

OZONE DEPLETION

Controversy continues to exist about the exact level, nature and cause of the depletion of the Earth's ozone layer. Over just the last decade, a decline of some 3 per cent in the ozone layer has been measured at mid–latitudes in the Southern Hemisphere, possibly accompanying the appearance of a "hole" in the ozone layer over Antarctica. Ozone is a trace gas found in the stratosphere (ie. 10–50 km above the Earth's surface) which plays a vital role in filtering out the ultraviolet rays reaching Earth from the sun.

Decreases in the ozone layer permit more UV light to penetrate to Earth and it is believed that for every one per cent decline in the ozone level, an increase of 4–6 per cent in certain types of skin cancer can be anticipated. With the highest incidence of skin cancer in the world, this matter is one of very special concern for Australia. In addition, recent studies have suggested that increases in doses of UV light may also damage the body's immune system.

In 1985 the nations of the world, under the auspices of the United Nations Environment Programme (UNEP) negotiated the Vienna Convention for the Protection of the Ozone Layer. This Convention was designed to phase out the use of chlorofluorocarbons (CFCs) – chemical substances used in a variety of processes which had been shown to be the major contributors to the chemical processes breaking down the ozone layer. In 1987 the Montreal Protocol to this Convention was negotiated to establish both standards and a timetable for the phase–out of CFCs. This in turn has been subject to further revisions as the result of international meetings in London, The Hague and Helsinki.

Addressing a conference on "Saving the Ozone Layer" in London in March 1989, Mrs Thatcher referred to the messages of the Conference when she said that two things had particularly struck her:

> *"First the urgency of the problem, and second, no–one can opt out."*

As with the issue of deforestation, demands for the global phasing–out of CFCs must address matters such as possibly providing mechanisms to support or compensate some of the less developed countries.

In particular we may need to consider appropriate assistance to those less developed countries whose industrialisation and progress towards higher levels of economic activity and standards of living (eg. involving greater use of refrigeration or air–conditioning units using CFCs) were predicated upon an increase in the level of production and use of ozone depleting substances.

ACIDIFICATION

The quality of the air we breathe is largely affected by the outputs and emissions of our industrial enterprises and our transport systems. Harmful chemicals pumped into the atmosphere may prove a direct threat to human life and health – for example the impact of lead emissions on children or smog pollutants on the elderly and those with respiratory complaints. (The London smog of 1952 is estimated to have killed 4,000 people.) Equally, acid rain damage can be done to rivers, lakes, forests, seas and other eco–systems both in the immediate vicinity of the output and across vast distances. Again, not all of this pollution results from industrial activity – for example, about half the sulphur in the air results from the simple burning of fossil fuels.

Not only the natural environment is at risk since air pollution can just as easily corrode buildings and thereby damage or destroy some of the most significant creations of man's built heritage – witness the impact of air pollution on the Acropolis of Athens.

It is encouraging to note that threats to the global climate have prompted an unprecedented international effort to co–operate in the search for solutions. This was seen in the speed with which the Vienna Convention was developed, the Montreal Protocol adopted and the recommendations of the Toronto International Conference on the Changing Atmosphere acted upon.

LIBERAL AND NATIONAL PARTY POLICY RESPONSES

In order to address these and other problems, the Liberal and National Parties have developed a range of policies which, taken together, will help us halt the damage being done to the Australian atmosphere; provide appropriate remedial action and make a contribution to tackling these issues on a global scale. Solutions must be sought at both the local and the international level.

Critically, what is needed urgently is the appropriate balance of research and activity taking place concurrently.

Aspects of our responses to questions raised about the protection, enhancement and rehabilitation of our climate are to be found in a variety of Liberal and National Party Policies. These include: Environment; Foreign Affairs; Heritage; Primary Industry; Resources and Energy and Science.

RESEARCH

The disastrous cut–backs imposed by the Hawke Labor Government on levels of research activity in Australia have led to several important climate research projects, especially those conducted by the CSIRO, being terminated for lack of funds. Nothing more graphically illustrates the shortsightedness and failures of Labor's economic and science policies than the fact that it has caused a cut–back in CSIRO's climate research efforts at the very time that this issue was coming into international prominence. Its cynicism about the value of CSIRO to Australia with its belated announcement of special additional funds suddenly being made available for "greenhouse research", after forcing cuts of some 32% in the CSIRO budget since their election to office, is staggering.

The Coalition's **Science Policy** states:

CSIRO

The CSIRO is the Government's principal instrument for civilian scientific research.

Our goal for the CSIRO is to create vigorous, outward looking Institutes conducting and delivering high quality research for the greatest benefit of Australia.

The next Liberal/National government will provide an environment which will enhance the reputation for scientific excellence developed by the CSIRO over six decades, and encourage greater interaction between it and industry.

We recognise the vital importance of, and the need to engage in basic scientific research, particularly in those areas where we have expertise and special needs.

The next Liberal/National Government will redress the shift away from agricultural and mining research within the CSIRO and will strengthen longer–term research projects such as water resources, soil acidity and salinity and pasture degradation.

In addition to this general restoration of CSIRO's pre–eminent role in the long–term scientific research we propose to encourage it to attract more funds for the private sector and will allow it to retain a progressively higher proportion of those funds so collected.

Our **Science Policy** further provides for specific attention to be paid to issues of Climate Research and Prediction. Specifically:

CLIMATIC RESEARCH AND PREDICTION

The economic and social consequences of Australia's harsh and variable climate, and the impact of a global change in climate need to be addressed now. Climatic research is fragmented and there is no national plan to provide a sound scientific basis for the determination of present and future needs.

Bureau of Meteorology

We place high priority on the provision of accurate weather and warning services and recognise the need for up–to–date equipment, particularly in severe weather and bushfire warning services. The valuable work done by the Bureau of Meteorology Research Centre (BMRC) will receive strong support from the next Liberal/National government.

Ionospheric Prediction Service

The Ionospheric Prediction Service provides radio propagation predictions and advice, disturbance forecasts and alerts, and solar and space environment data for HF communications systems, satellite operations, HF radar, VLF navigation, and long–line electricity, pipeline and telephone operations, as well as participating in international research programmes. We will continue to support this valuable service.

Equipment and Services

Both the Bureau of Meteorology and the IPS are vital links in our climatic forecasting chain. We will continue to ensure the most modern equipment and facilities are made available. The cost effectiveness

and administration of all services will be reviewed and a detailed analysis of cost recovery opportunities undertaken.

Long–Term Climatic Change

Research into oceanic and atmospheric behaviour is essential to an understanding of the impact of a global change of climate on a continent as large as Australia.

A Liberal/National government, recognising the significant impact the Greenhouse Effect and Ozone depletion will have on climate, materials and energy usages, health and life–styles of communities in the future, will co–ordinate the pursuit of knowledge and strategies to address these looming world environmental phenomena.

The next Liberal/National government will establish a Co–ordinating Committee of Long–Term Climatic Change in Australia (LTCCA).

The Committee would, as a primary step, co–ordinate the resources of:

. the Australian Meteorological Service.

. the Australian Ionospheric Prediction Service.

. The CSIRO Division of Atmospheric Physics.

. atmospheric and oceanic research in Australian Universities.

. the Australian Antarctic Science Programmes.

Drought Research

The scourge of drought represents one of Australia's greatest environmental problems. As the only scientifically advanced nation where drought is the major climatic characteristic, Australia has both the incentive and the capacity to make a commitment to research into the causes, duration, intensity and location of drought.

Accordingly, the next Liberal/National government will co–ordinate the various resources involved in research into the El Nino – Southern Oscillation (ENSO) and water resources including the Bureau of Mineral Resources, CSIRO, State Government agencies and higher education institutions.

We will examine the establishment of an International Drought Research Centre (IDRC), the basic objective of which would be to establish the viability of drought prediction schemes.

The IDRC would facilitate international discussions and collaborative research; centralise information; programme research; and promote integration of the Australian drought research effort.

Notable work has also been done in relation to climate policy questions by Australia's distinguished marine scientists. Not only has this work encompassed specific studies of climate change, tides, the El Nino/La Nina effect on the impact of rising sea levels on our coastlines, but it has also touched on aspects such as marine pharmacology where discoveries about such things as UV screens and sun–blocking agents may be found. Our policies give a renewed emphasis and priority to support of marine research activities. The failure of the Labor Government to give an adequate response to the McKinnon Committee Report on marine science has rightly been criticised and provides further evidence of the Government's disastrous neglect of basic science. Work in oceanography is one of the most vital elements in the overall issue of climate research and policy developments.

Research into global climate change is taking us into quite a variety of new areas. Scientists at James Cook University, for example, have suggested that the Greenhouse Effect could be controlled by injecting inert gases into the stratosphere to absorb solar energy. Such opportunities and possibilities must not be lost as a result of Labor Government funding cut–backs as has been the case in recent years.

This is not the complete list of research issues needing to be addressed. CSIRO for example also has a crucial role to play in areas such as forestry research to which reference will be made later. Further, our **Resources and Energy Policy** places considerable emphasis on research to be undertaken into finding and exploiting alternative energy sources and the more efficient production and conservation of energy.

ACTIVITY

COMBATTING THE GREENHOUSE EFFECT

Our **Environment Policy** provides:

Climatic Policy Issues

The protection of the Earth's atmosphere and climate on an international level is of unquestioned significance to Australia.

A number of significant initiatives are proposed by the next Coalition Government for on–going research into climatic questions including the upgrading of

the resources of the Bureau of Meteorology; the establishment of a Committee of Long–Term Climatic Change in Australia and the examination of the establishment of an International Drought Research Centre in Australia.

In Government, the Coalition Parties will pursue with industry and the State Governments, a timetable for accelerating the implementation of the Montreal Protocol for the protection of the earth's ozone layer. Australia will also take a leading position, in international forums, in the revision of the Montreal Protocol seeking stricter controls. In addition, through the research work undertaken through Australian efforts in Antarctica, further scientific investigation on the effects of CFCs will be pursued.

Particular attention will be paid to the steps which Australia can take to ameliorate the world–wide impact of the "Greenhouse Effect", i.e. the warming of the earth's atmosphere.

Investigations will be pursued into the practical alternatives which exist to the continued burning of fossil fuels and their replacement by other economically viable energy sources.

Trees provide an important functions in cleaning the air and replenishing our atmosphere. The planting of trees is a vital part of our Climate initiatives. Our **Environment Policy** provides:

National Tree Programme

The planting of trees is one of the most important strategies to be pursued in response to our soil conservation and land degradation problems. At the same time the trees themselves can be economically productive as well as an aid to improved agricultural production.

In addition to our taxation incentive for tree planting, funds for the National Tree Programme will be raised to at least double the present level over the next five years.

The work of organisations such as Greening Australia, the Potter Foundation and The Men of the Trees makes a significant contribution of truly national importance in these areas. Such organisations will be supported in their work by the next Coalition Government.

As far as possible the role of volunteers in tree planting programmes will be encouraged, along the lines of the Australian Trust for Conservation Volunteers. Opportunities for the employment of young people in such programmes will be promoted in consultation with the States and voluntary organisations and these will be integrated with our Youth and Training Policies. State and local Arbor Day initiatives will be encouraged.

Emphasis within the National Tree Programme and our related taxation policies will be towards the greater planting of Australian native trees; the avoidance of unnecessary replacement of native bush and the encouragement of tree planting activity only in economically and ecologically justified areas.

Both our Primary Industry and Environment Policies make clear our commitment to major initiatives related to forestry and in particular to reforestation programmes especially as regenerating forests make a more positive contribution to cleaning our atmosphere and combatting the Greenhouse Effect than do mature forests, as they are net absorbers of carbon and release more oxygen than they absorb.

Our **Environment Policy** states:

Forest Policies

Australia's native forests are a unique and scarce resource. Australia has a responsibility to protect and manage its forests, especially its rainforests in the face of wholesale destruction of the forests in under–developed or lesser–developed countries. At the same time the timber industry is a major resource and manufacturing industry in Australia and one which should be encouraged to expand. Australia has both the expertise and the experience to manage its forests effectively to integrate policies of conservation and resource utilisation. The co–ordination of policies can best be achieved drawing on the work and expertise of the Australia Forestry Council and by making effective use of Memoranda of Understanding with individual States. There is great expertise in the various State Forestry Commissions and various formal Codes of Practice are in operation. The Commonwealth also has clear responsibilities related to matters such as the granting of export licenses. Policies will be put in place by the Liberal and National Parties which

- *recognise the primary responsibility of the States in forest policy matters while in no way resiling from the proper discharge of national responsibilities*
- *encourage greater protection in national parks of a wider spectrum of the genetic diversity of our native forests*
- *promote the development of plantations, especially of hardwoods, in order to lessen, over time, the pressure of the timber industry on Australian native forests*
- *encourage the expansion of private forest operations where appropriate including the expansion of their export opportunities*

- *promote a greater value–added component within the forestry and timber industries*

- *encourage the adoption of the most scientific and appropriate practices of modern forestry management*

- *adopt a National Rainforest Strategy along the lines proposed by the 1985 Report of the Joint Commonwealth–State Working Party on Rainforest Conservation*

- *stress the importance of reafforestation programmes as a major contribution to maintaining the long–term future of both our forests and our forest–based industries*

- *where access is granted to forestry resources on public lands, those granted access should be provided with long–term security of tenure for their operations.*

Our **Resources and Energy Policy** focuses upon positive steps to promote the use of non–fossil fuels; to undertake research focusing on the minimisation of environmental pollution, and to promote a greater level of energy conservation. Specifically, we state:

Non–fossil Fuels

The Liberal and National Parties believe that Australia should vigorously be seeking opportunities to utilise non–fossil fuels as alternative energy sources. They are both a means of diversifying our energy sources and of minimising the build of the Greenhouse Effect, caused in large measure through the burning of fossil fuels.

For domestic power generation, we will maximise the development of viable hydro–electricity, solar, wind, tidal and bio–energy renewable energy sources and alternative fuels such as methanol and ethanol. Accordingly, a Coalition Government will not alter the excise free status of ethanol. In addition, the Liberal and National Parties support the development of the uranium industry particularly to supply world non–fossil fuel energy requirements. We look forward to improvements in the technology used in the nuclear industry, to the development of fusion technology and to the continuing investment in appropriate research.

Hydro Electricity

The Liberal and National Parties will support the further development of hydro electricity as a power source. Although limited potential for new schemes exists, considerable gains can still be made by improving the efficiency of existing schemes through the utilisation of the latest technology in generating capacity. Discussion will be initiated with State governments to determine to what degree hydro–electricity generation can be expanded to extend the grid.

Existing Energy Sources

It is important that the maximum efficient output is obtained from existing energy sources and that environmental pollution is minimised. The Liberal and National Parties will promote research to these ends, recognising that it is critical to Australia's economic development.

Electricity Research

Australian research institutions will be encouraged to undertake commissioned research into the electricity sector, and into the latest field of superconductors.

Energy Conservation

Public awareness of the need to conserve scarce resources has lapsed since the crash in oil prices in 1986. We will revive an initiative of the last Coalition Government which attempted to bring about significant energy saving and conservation in the public and private sectors.

Australia has enormous resources of non–fossil fuels available, especially gas which is one of the most "environmentally– friendly" fuel sources, and hydro–electricity. We also have a vast pool of talented researchers and engineers who are anxious to play a significant role in helping to combat the effects of the Greenhouse Effect, a matter already given priority by the Institute of Engineers of Australia.

As previously noted, if we are to tackle these matters on an international level, attention must be paid to aspects of our Foreign Policy related to the environment. Specifically our **Foreign Affairs Policy** states:

Environmental damage, notably depletion of the ozone layer, the Greenhouse Effect, deforestation, land degradation, the worst kinds of pollution, and injury to the food chain in the sea, is a great and growing problem. Globally, the effects of environmental damage threaten the life systems that sustain mankind, our health, the levels of economic growth needed for fair conditions of life for the world's growing population, and the diversity of our planet's life forms.

The need for practical, international action to combat global environmental damage is urgent and universal.

A Liberal/National Government will give the utmost support to global strategies to reverse the damage

done to our planet's environment and to manage ecological and economic interdependence. Since the greater part of environmental damage has been caused by the industrialised countries, these changes should not impose unfair burdens on developing countries, nor set back their peoples' hopes for a better life through steady economic growth.

Australia has played, and under the next Liberal/ National Government will continue to play, a prominent role in various international arrangements and Treaties related to the global protection of the environment and the protection of endangered species of wildlife and threatened habitats.

This policy also focuses upon questions of foreign aid, with a commitment to support the UN goal of applying 0.7% of our gross domestic product to aid. Under the Hawke Labor Government, Australia's contribution of foreign aid has been slashed from 0.51% to 0.37% of GPD in the last few years. We further state:

The environmental impact of Australian aid programmes should be examined. Greater emphasis on environmental needs will be given by a Liberal/ National Government in Australian aid programmes. Aid given through international agencies should be given in ways which preserve nature's life support systems.

The other important area of international co–operation relates to the activities of the World Meteorological Organisation. We will support its work and programmes, especially the World Climate Programme and we look forward to active participation in the Second World Climate Conference in 1990.

While most of the above policies relate to reduction of carbon dioxide, the principal greenhouse gas emitted, we must also be aware of the serious impact of methane gas emissions. Apart from general policies related to preservation of our forests, the reduction of industrial emissions, there is one other area particularly relevant in regard to methane emissions, namely the decay and decomposition of material left on rubbish dumps. One of the most successful ways of reducing this is by the promotion of recycling activities in societies like our own.

To date some progress has been made in promoting recycling programmes and industry itself has been making major efforts to promote this. Nevertheless there is still a long way to go, especially with the recycling of paper. At present only some 30% of paper products are recycled and this must be increased, both as a contribution to reduction in greenhouse problems but also to help conserve forest resources. Our **Environment Policy** states:

"The Coalition Parties acknowledge the progress made in recycling programmes for many products but believe that these could be further extended to encompass areas such as remoulded rubber tyres. Industry will be encouraged to pursue initiatives in these areas and will have access to Government advice and data to assist them."

PROTECTION OF THE OZONE LAYER

The Coalition Parties at the federal level have taken a lead in seeking to provide legislative initiatives to reduce threats to the ozone layer. We have endorsed the terms of the Vienna Convention and the Montreal Protocol, but we believe Australia should go further. When the Ozone Protection Bill was before the Senate we successfully amended it to require the Government:

to use its best endeavours to encourage Australian industry to:

(i) replace ozone depleting substances; and

(ii) achieve a faster and greater reduction in the levels of production and use of ozone depleting substances than are provided for in the Convention and the Protocol,

to the extent that such replacements and achievements are reasonably possible within the limits imposed by the availability of suitable alternate substances, and appropriate technology and devices.

We will support further revisions of the Protocol and will work with industry to achieve these upgraded standards. We will also provide appropriate assistance to less developed countries to encourage them to take steps to reduce their production and use of ozone depleting substances. Major initiatives have also been taken by our Parties in the various States, and indeed the Liberal State Government of Tasmania introduced pioneering legislation to restrict the use and impact of CFCs.

Throughout the world there is an increasing interest in finding substitutes for CFCs in a variety of uses. Not only are the industrial giants like du Pont and ICI working in this area; but it appears that a major breakthrough may have been achieved by the Tasmanian company Cygnet in substituting compressed nitrogen for CFCs as a propellant.

OVERALL STRATEGY

Our Environment Policy stresses that all our policies will be integrated within the framework of the National Conservation Strategy for Australia, developed and adopted by the Fraser Liberal Government between 1980 and 1982. In terms of the climate challenges, we acknowledge

the potential for reducing greenhouse gases and protecting the ozone layer must be examined across the board. We identify this potential as follows:

Source	Contribution	Potential Reduction	
C. F. C. s	13 ± 3%	Substitution and control	13 ± 3%
Deforestation and land use	15 ± 5%	Tree planting, control, economic assistance	15 ± 5%
Motor vehicles $CO_2 + O_3$	12 ± 3%	Improved efficiency Use of gas	3–4% 6–7%
Coal-fired power stations	8%	Improved cycle efficiency	2%
Forest fires (natural flux)	25–50%	Improved education, surveillance, control	5–10%

Control potential for reducing greenhouse warming effect.

An overall strategy needs a series of positive goals to be achieved. We identify these as including:

(a) a target for reduction in overall non–CFC greenhouse gas emissions by the year 2000, perhaps in the order of 10–20%;

(b) faster reductions in the emission of CFCs and halons, with a possibility of their elimination (excluding medical and pharmacological uses) perhaps by 1995; guided by, but not necessarily restricted to the reductions proposed by the Helsinki revisions of the Montreal Protocol;

(c) a national programme aimed at identifying the sources of acid rain (e.g. sulphur and nitrous oxide) and air pollution, and bringing about a reduction in their emissions into the atmosphere;

(d) continued monitoring of Australian Design Rules covering levels of permissible emissions from motor vehicles and engines. (The reduction of car emissions has been given particularly high priority by the British and European Community Governments in 1989.)

ANTARCTICA

The Antarctic Continent plays a unique and crucial part in the control of the world's climate. We are specifically committed to maximum protection of the Antarctic environment, and led the public debate in Australia with an announcement, well in advance of any Government decision, that we were totally opposed to Australia signing the proposed Antarctic Minerals Convention. Our proposals for the development of a regime to prohibit mining activity in the Antarctic were very largely based upon our concerns for protection of the Antarctic and thus world climate.

COASTAL ZONE MANAGEMENT

Rises in sea levels pose a significant potential threat to our coastline as has already been explained. The threats include the actual submergence of land, the penetration of salt water into rivers and estuaries and the destruction of marine intertidal ecosystems.

Our **Environment Policy** provides:

Coastal Zone and Marine Management

Australia has one of the longest coastlines of any nation (36,735 km) and that coast faces major problems of erosion, pollution and inadequate management. The Commonwealth itself owns and controls over one million hectares of coastal land in 121 sites. There is at present no national strategy for the control, use, protection and rehabilitation of our coastline. The next Coalition Government will negotiate with the States to secure a National Strategy on Coastal Management to be implemented co–operatively between the relevant State and Federal authorities.

Present administrative arrangements related to the Great Barrier Reef will be maintained and supported with a continued emphasis on research into potential threats to the survival of the Reef.

HUMAN HEALTH

We recognise the impact of climate change on human health, both in terms of exposure to UV light and in terms of general pollution. We state in our **Environment Policy** that:

Environmental Health

There has been inadequate research carried out in Australia to investigate the links between environmental pollution and human health in a proper, scientific and non–judgmental fashion. We will nominate an Environmental Medicine Task Force under the aegis of NH & MRC to advise on environmental hazards to public health. Such a task could be contracted out to an existing institution of proven capacity.

POLLUTION CONTROL

Previous Liberal Federal Governments took positive initiatives such as the introduction of unleaded petrol and the introduction or proposal of the following Acts of Parliament:

- Environment Protection (Sea Dumping) Act 1981
- Protection of the Sea (Prevention of Pollution from Ships) Act 1983
- States Grants (Air Quality Monitoring) Act 1976
- Environment Protection (Nuclear Codes) Act 1978
- Environment Protection (Alligator Rivers Region) Act 1978

We will build upon these achievements, as our **Environment Policy** states:

Pollution and Waste Disposal

Responsibility for general policies to control pollution and waste disposal properly lies with the States. There is however a co–ordinating role which can be played by the Commonwealth in the development of uniform standards to control pollution, for example regarding motor vehicle emissions. Commonwealth authorities can also provide advice and data to assist State authorities as required.

We believe that a decision is now urgently required on the location for a high–temperature toxic waste incinerator accessible to the industries of the Eastern Seaboard. We will press for a decision to be made by the Joint Taskforce on Intractable Waste and will accept a primary responsibility for the funding of such a facility to be thereafter operated on sound commercial principles.

While accepting that society has to bear some of the costs associated with development and productive activity, we endorse the principle that to as great an extent as possible, environment protection laws should encompass the "polluter pays" principle.

In any developments for which permission or authority must be given by the Commonwealth, where unavoidable environmental damage occurs, a Coalition Government will require that adequate programmes for environmental rehabilitation are in place as a condition attached to the permit or authority.

The Commonwealth Government, through ANSTO, will take a lead in identifying and helping to resolve questions of the long–term safe disposal of radioactive waste products currently being stored randomly at various State and Territorial locations.

DROUGHT AND NATURAL DISASTERS

Both drought and natural disasters are intimately connected with all other aspects of climatic activity. In addition to the policies already set out above, our **Primary Industry Policy** provides:

Drought

Because of the gradual nature of the onset of drought, there is justification in treating drought assistance separately from other natural disasters, and in the past this has been recognised by Liberal/ National Party Governments.

Drought policy should specifically aim to:

- *encourage producers to adopt management practices that help alleviate the effects of drought,*
- *give priority to maintenance of the resource base including land, livestock and cropping resource,*
- *utilise the technology available in long–range weather forecasting,*
- *overcome the present inappropriate financial year Federal/State financing arrangement, in the NDRA.*

The present arrangements are not working satisfactorily and they will be reviewed on our return to Government with special emphasis on drought procedures.

Policies will be applied in a way that encourages farmers to put in place their own strategies in advance of a drought and which do not discriminate against these farmers who have made reasonable provisions for drought.

This will include the practicability of implementing a two–stage policy in co–operation with State and local committees to identify preferred management practices in emerging, and advanced stages of a drought.

Natural Disasters

Arrangements to deal with natural disasters are of great importance to rural communities as they are directly affected by drought, flood and fire, etc.

Federal and State Government finance for these disasters are provided under the Government's Natural Disaster Relief Arrangements (NDRA) and will be continued.

THE NATIONAL ESTATE

The National Estate composes both elements of the natural environment and the man–made environment. Both can be adversely affected by climate changes and the threat of atmospheric pollution. Buildings, especially those with unique heritage value are particularly vulnerable to the effects of air pollution and special protection measures are often necessary. It has been seen in cities such as London that the air can be cleaned up and the impact of atmospheric pollution actually reversed. Our **Heritage Policy** provides specific protection for the National Estate and indicates that appropriate taxation incentives will be considered for the restoration of National Estate properties to productive use.

THE FRAMEWORK FOR ACTION

A review of the issues facing Australia and the world in responding to the threat to our global atmosphere lead to the formulation of three–pronged action plan as follows:

1. Research must be supported at all levels to an adequate level and be co–ordinated

2. Action must be taken positively to

   a) reduce the overall emission of greenhouse gases

   b) prohibit, as far as possible, the release of such gases

   c) find effective substitutes for ozone depleting substances

   d) promote the use of alternative, cleaner fuels

   e) improve our levels of energy efficiency

   f) attack the problems of world poverty

   g) preserve our world's forests, especially the rainforests, rightly called the "lungs" of our planet.

3. Leadership must be provided and the political will which is necessary to address these problems must be displayed.

CONCLUSION

The integrated policies of the Liberal and National Parties recognise the various threats to the Earth's atmosphere and climate. We are sensitive to the need to act both locally and globally to overcome these problems. Our policies integrate the need for appropriate research to be undertaken at the same time as specific policies are actually put into practice. Our solutions range from the small scale and specific, right through to the global and international. They not only address the immediate problem, they look equally to policies related to research into climatic issues and to halt further degradation of our atmosphere and to taking positive steps by way of rehabilitation of the biosphere.

To date, while the technology and science have been available, what has been lacking is the political will.

That will be provided in Government by the Liberal and National Parties of Australia.

June 1989

THE CLIMATE CHALLENGE ACTION PLAN

* SUPPORT AND CO–ORDINATION OF CLIMATE RESEARCH
* ACTION
  - reduce greenhouse gas emissions
  - prohibit where possible the release of such gases
  - encourage substitutes for ozone depleting substances
  - promote the use of alternate, cleaner, fuels
  - improve energy efficiency
  - preserve the Earth's forests
* POSITIVE NATIONAL AND INTERNATIONAL LEADERSHIP

STATISTICAL

TABLES

ON

CLIMATE INFLUENCES

Table 1: Summary of the main trace gases influencing climate

Characteristics	Gases						Total
	CO_2	CH_4	N_2O	CFC11	CFC12	O_3	
Man-made sources	Fossil fuel burning, deforestation, soil destruction	Cattle biomass, rice paddies, gas leaks, mining	Fossil fuel burning, cultivation & fertil. of soils, biomass burning	Foam, aerosol, refrigeration & air cond., other uses	Refrig. & air cond., aerosol, foam, other uses	Indirect through photochemical processes	
Current emission rate (1970-1987)	16 000 - 29 000 (Mt)	135 - 395 (Mt)	16 - 28 (Mt)	330 (kt)	440 (kt)		
Sinks and removal processes	Ocean, biosphere	Reaction with OH, soil uptake, loss to strat.	No sink in troposphere, loss by photolysis in stratosphere			In trop. due to CO, NO_x, CH_4, HC; in strat ClO_x, HO_x, NO_x, BrO_x	
Current conc. in the atmosph. (1985/86)	346 ppm	1.7 ppm	0.31 ppm	0.20 ppb	0.32 ppb	0.02-0.1 ppm in trop, 0.1 - 10 ppm in strat.	
Atm. residence time (yrs)	ca. 500 (atm/ bio./upper ocean)	7 - 10	165 - 185	ca. 65	ca. 110	hrs to days in trop., 1 hr in upper strat.	
Current conc. growth rate (1980), %/yr	ca. 0.4	1.0 - 1.2	0.2 - 0.3	ca. 5	ca. 5	Increasing in trop. decreasing in upper strat.	
Future conc. growth rate (1980-2030), %/yr	0.24 - 0.98	0.23 - 1.40	0.31 - 0.81	1.16 - 4.95	1.04 - 4.99		
Future conc. in the atmosph. (2030)	381 - 551 ppm	1.9 - 3.3 ppm	0.35 - 0.45 ppm	0.5 - 2.0 ppb	0.9 - 3.5 ppb		
Contrib. to temp. °C incr. 1880 - 1980 %	0.50 - 0.61 68 - 63	0.11 - 0.20 15 - 21	0.02 - 0.04 2 - 4	0.02 - 0.03 3 - 3	0.04 - 0.05 6 - 5	0.04 5 - 4	0.73 - 0.97 (0.74 - 0.99)
Contrib. to temp °C incr. 1980 - 2030 %	0.35 - 1.60 52 - 51	0.07 - 0.36 10 - 11	0.06 - 0.21 9 - 7	0.02 - 0.27 3 - 9	0.03 - 0.51 4 - 17	0.14 21 - 5	0.67 - 3.09 (0.70 - 3.31)
Contrib. to temp °C incr. 1880 - 2030 %	0.85 - 2.21 61 - 55	0.18 - 0.56 13 - 14	0.08 - 0.25 5 - 6	0.04 - 0.30 3 - 7	0.07 - 0.56 5 -14	0.18 13 - 4	1.40 - 4.06 (1.44 - 4.30)
Climatic effect of one molecule relative to CO_2	1	ca. 20	ca. 200		ca. 10 000	ca. 2 000	

Source: W. Bach, 'The endangered climate. Report No. 15', *in* F. Krause and W. Bach (eds), *Energy and Climate Change: What Can Western Europe Do?*, Report for the Netherlands' Ministry of Housing, Physical Planning and the Environment, 1988.

Table 2: CFC Reduction possibilities

	Aerosol propel-lent	Refrig. & air-cond.	Heat pumps	Indust. foams	Freeze preser-vative
Change to less persistent CFC	★	X	X	X	X
Change to non-CFC	X	—	—	—	—
Change system	X	X	X	★	X
Closed recycling	—	★	★	★	★
Avoid new CFC systems	★	★	★	★	★

Source: E. Arrhenius, *Policy questions on reducing emissions of CO_2, CH_4, N_2O and CFC's.* Paper presented at the European Workshop, Noordwijkerhout, Netherlands, 16-21 Oct. 1987. Key: X = Best option; ★ = Second best option; — = Not relevant

Table 3: Methane emission rates

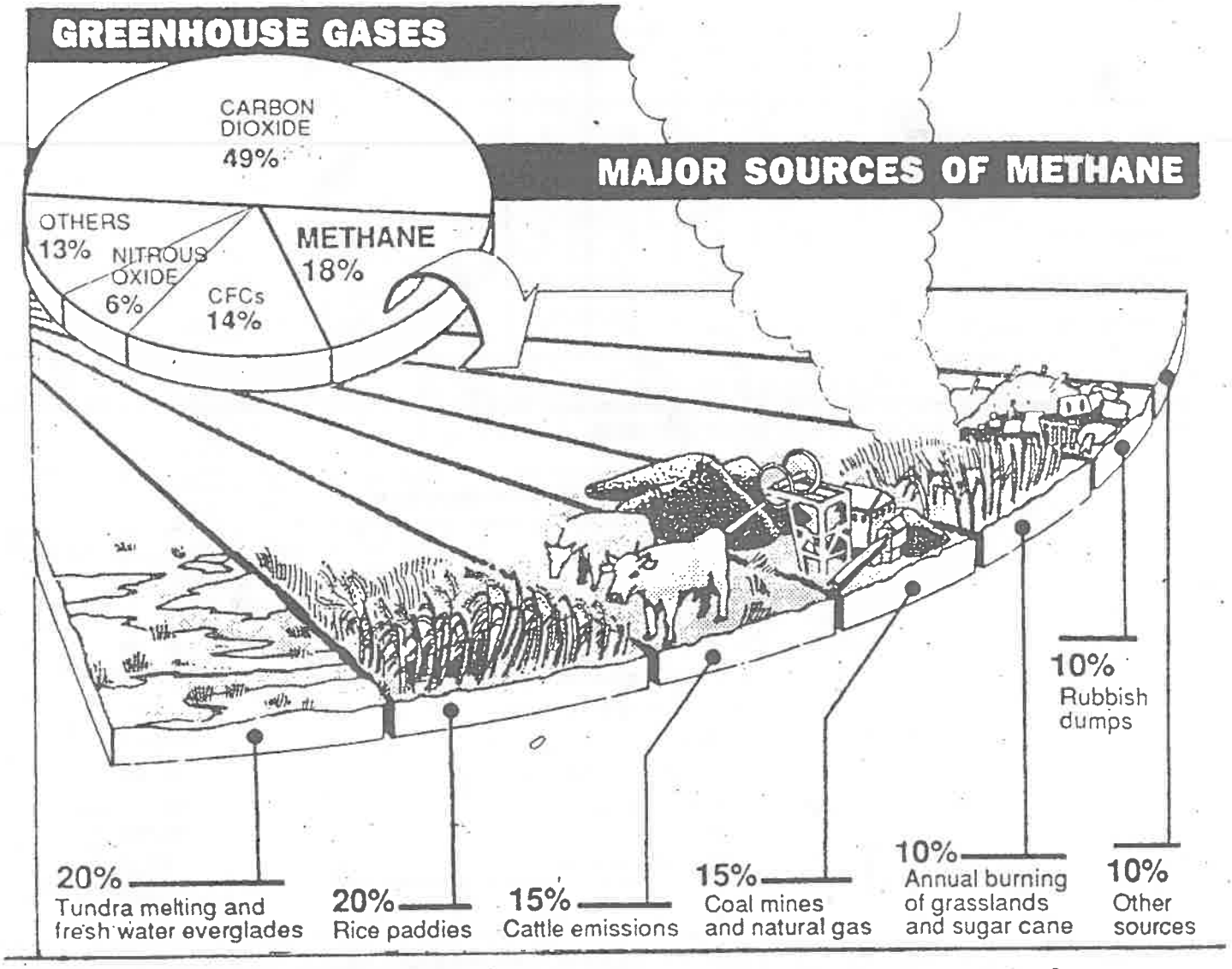
Source	CH_4 emission ($\times 10^{12}$ g y^{-1})
waterlogged soils (paddy rice)	70-170
organic soils (peat)	25- 70
landfill sites	30- 70
oceans/lakes/other biogenic	15- 35
intestines of ruminants	70-100
termites	6-42/2-5
exploitation of natural gas	30- 40
coal mining	35
biomas	55-100
other nonbiogenic	1- 2
total	337-664/333-627

Source: A.F. Bouwman, Draft background paper for the International conference on 'Soils and the Greenhouse Effect' to be held in Wageningen, The Netherlands, August 14-18, 1989. International Soil Reference and Information Centre, Wageningen, 1988.

Table 4: emission of N_2O for major land cover types

land cover type	Emission rate (10^{-4} gN m^{-2} h^{-1})	global emission (10^{12}g N)
tropical rainforest	1.0 -2.0	6.2-12.4
tropical seasonal forest	0.1 -0.4	0.6- 2.5
temperate deciduous	0.05-0.2	0.3- 1.2
temperate coniferous	0.1 -0.4	0.6- 2.4
boreal	0.1 -0.4	0.6- 2.4
woodland	0.05-0.2	0.3- 1.3
savanna	0.05-0.15	1.3- 4.0
tundra/grassland	0.05-0.15	
cultivated land	0.02-2.0	0.3-27.6
marsh/swamp	0.5 *	0.9
total		11.1-54.7

*assuming flooded conditions during half of the year



LIBERAL

NATIONALS

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