



WWF- Australia  
World Wide Fund  
For Nature

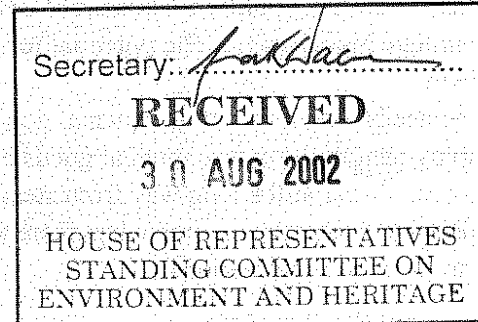
Tel: +61 2 9281 5515  
Fax: +61 2 9281 1060

Level 5  
725 George Street  
Sydney NSW 2000

enquiries@wwf.org.au  
www.wwf.org.au  
GPO Box 528  
SYDNEY NSW 2001

Mr Ian Dundas  
Committee Secretary  
House of Representatives  
Sanding Committee on Environment and Heritage  
Parliament House  
Canberra ACT 2600

Monday, August 26, 2002



Dear Mr Dundas

Thank you for the opportunity to enter a submission to the Standing Committee in their inquiry into employment in the environment sector. We would like to comment on the following terms of reference:

1. *The current contribution of environmental goods and services to employment in Australia*

The current contribution of environmental goods and services to employment in Australia is minimal, with the possible exception of the waste management industry. For example WWF (World Wide Fund For Nature) Australia currently employs 80 staff. We recognise this is too few people to realise our corporate mission of conserving the biodiversity of Australia and the Oceania region. To encourage environmentally sustainable practices and conserve our unique Australian environment for future generations, the environmental goods and services industry will need to employ a far greater number of people in the near, medium and long term future.

2. *The future potential growth, including barriers and opportunities for growth, of environmental goods and services and impact on employment*

There is a large potential for future growth within the environmental goods and services industry.

Opportunities for growth include:

- The large number of tertiary educated young people eager to enter into the environmental sector. Most universities offer excellent courses on conservation, sustainable practices and other environment related topics. Unfortunately many tertiary qualified students are unable to obtain employment within the environment movement.
- A large number of people with volunteer experience eager to work in the industry. Organisations such as Conservation Volunteers Australia enlist thousands of volunteers every year for a variety of conservation activities. These volunteers gain worthwhile skills to assist the environmental goods and services sector, however they are usually unable to find paid employment within the industry. WWF has a long list of volunteers willing to help us with our work and who would love to be employed in the industry.



- There is growing public awareness of environmental issues and the need to take quick action to conserve our unique biodiversity. The potential for increased support from community is also an opportunity for growth.
- The needs within the environmental goods and services sector are large and continually increasing. Employment in the environmental goods and services sector has been growing steadily over past decades, however we are still a long way from stemming the tide on degradation of the world's natural resources. It is impossible to envisage a time when there will not be enough work to justify an increase in employment in environmental organisations.

Barriers to future potential growth include:

- A lack of financial resources.
- The lack of job security due to short term funding. The funding received by WWF and other conservation organisations by the government, government agencies or corporations is often short term. This results in many environmental groups employing staff on short term contracts of one or two years. This in turn leads to a lack of job security within the industry.
- The environmental sector is seen by many government officials and the majority of the public as secondary to humanitarian issues such as health, housing and employment. We believe that environmental issues are intrinsic to the well being of people today and in the future. Environmental issues and humanitarian issues go hand-in-hand and should not be separated.

### *3. Current status and future requirements for an appropriately skilled workforce*

As mentioned above there are currently a large number of tertiary qualified people and people with volunteer experience eager to gain employment within the environmental goods and services sector. Future requirements will include people with international experience to work on important global issues. WWF as an international network is looking at ways to help staff gain international experience.

### *4. Appropriate policy measures that could encourage the further development of the environmental goods and services sector*

Appropriate policy measures include:

- Introducing more tax measures to encourage increased philanthropy. A lack of financial resources is the greatest barrier to the development of the environmental goods and services sector. As public awareness of environmental issues within Australia grows opportunity should be taken to increase philanthropy to the environmental sector. A number of reports have been written exploring ways in which tax measures can encourage philanthropy. Recommendations include:
  - That the Government gives equal recognition to the contribution of all citizens by providing all tax payers the same level of benefit from making a gift.
  - That the Government provides additional tax support for donations of property.

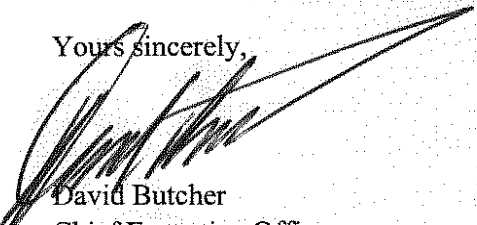


- That the Government encourages "living bequests" by clarifying that they are deductible (or rebatable) under the income tax gift provisions.
  - That the Government acts urgently to provide an income tax deduction or rebate in relation to all covenants and binding conservation agreements, including those made with Government agencies.
  - That the Government allows tax deductions for specific types of in-kind support for public good research, including in relation to the use of land or other assets for research purposes.
  - That the Government explores options for providing tax support for funds invested in social enterprises and other "public good activities", such as conservation and innovative sustainable research use, with particular attention to community investment tax credit announced by the UK Government.
- Consider the introduction of an "environmental levy" as recommended in the House of Representatives Sanding Committee on Environment and Heritage report *Coordinating Catchment Management*, December 2000, to increase government funding of the environmental goods and services sector.
- Increase the length of government grants and other government funding to allow organisations to employ staff on longer employment contracts
- Allow for administrative support costs in government grants and contracts. This will enable organisations to employ people trained in administration and finance to undertake appropriate tasks. This in turn will allow employees trained in conservation and other environmental services to concentrate on conservation outcomes rather than administrative functions.

I have attached the WWF paper *Greening the 2001 Agenda; Priority environment initiatives for Commonwealth Government 2002-05* which outlines in sections 1, 5, 11 and 13 key policy and program proposals that WWF Australia believes will directly assist initiatives for advancing employment in the environment sector.

We trust the above comments will assist in your inquiry. Please contact me on (02) 9281 5515 if further clarification is required on any of the above points.

Yours sincerely,



David Butcher  
Chief Executive Officer



# Greening the 2001 Agenda

**Priority environment initiatives for  
Commonwealth Government 2002-05**

World Wide Fund for Nature Australia

July 2001



Australia's natural environment is one of the earth's great biological treasures. With many unique species and a continent that stretches from the tropics to the Southern Ocean, we have an astonishing natural wealth. In terms of species richness and level of endemism, we are rated as the fourth most "megadiverse" nation in the world.<sup>1</sup> However, ongoing loss of this biodiversity remains one of the most pressing environmental concerns.

In 1992 and again in 1995, WWF presented to the Commonwealth Government a conservation agenda that identified the 1990's as '*probably the last chance humanity has to arrest the drastic decline in environmental quality we have witnessed in the past fifty years.*'

WWF has determined that in the last 30 years over one third of the world's biological resources have been lost or degraded.<sup>2</sup> Globally we have moved beyond a 'drastic decline' and now face a systematic breakdown of the ecosystems and biodiversity that have supported human life and cultures for millions of years.

The Commonwealth Government has the responsibility for addressing this global degradation as it applies to a range of key threats and biodiversity conservation issues throughout Australia. In recent years commitments have been made to better legislation and expanded programs. Far more remains to be achieved.

This document outlines the policies WWF Australia believes the next Commonwealth Government must implement during the next term of government (2002–05).

## **INTRODUCTION: HUMANS AND NATURE IN HARMONY - THE WWF APPROACH**

WWF is the world's largest, most experienced conservation organisation, working in over 100 countries globally from more than 42 offices.

WWF is non-party political. WWF works collaboratively with governments, industry, other conservation groups and the community to tackle and reverse environmental degradation.

WWF has been operating in Australia for over 20 years, providing conservation leadership in five key policy areas: Forests, woodlands and grasslands; Freshwater; Species; Oceans and coasts; and Natural resources. WWF Australia operates a large program of practical conservation projects, policy development, community outreach and education in seven priority ecoregions. Six of these ecoregions are in Australia: the Great Barrier Reef, South-west Western Australia, Tropical Wetlands of Oceania, South-east Queensland, the Murray-Darling Basin, and the Southern Temperate Oceans. The seventh, a partnership with other WWF offices, is the Tropical Rainforests of Melanesia.

*Greening the 2001 Agenda* draws upon WWF's 40 years of international expertise and on-ground experience to deliver practical advice on priority policy and program measures that address the key

### **WWF AUSTRALIA MISSION:**

The purpose of WWF Australia is to conserve the biological diversity of Australia and the Oceania region.

By taking an active leadership role, based on sound science and political independence, WWF Australia will demonstrate courage and persistence in continually searching for the best way to conserve and sustainably manage the natural environment.

WWF will be honest, empathetic and respectful in its dealings and strive to establish strong partnerships for its actions.

The result of these actions will be the conservation of the earth's rich web of life, which is vital for the survival of all living things.

threats to the Australian environment. The key principles underlying and informing WWF's work, as well as these policy proposals, include the following:

- Biodiversity conservation is essential to a sustainable human existence;
- To be sustainable, biodiversity conservation must operate at a landscape level, rather than by simply protecting remnant patches within a degraded landscape;
- Biodiversity conservation is inexorably linked to effective natural resources management;
- A mix of voluntary, market-based and regulatory mechanisms is essential to ensure that the most effective conservation tool is available in every instance;
- The application by all sectors of society of the principles of Ecologically Sustainable Development;
- The application of the precautionary principle, whereby potentially damaging actions should proceed only with due care and caution where there is a risk of environmental degradation, even where this risk cannot be proven scientifically.

More detailed information regarding all of the proposed initiatives is available by contacting WWF in Sydney or Canberra.

World Wide Fund For Nature Australia  
Level 5, 725 George Street  
Sydney 2001  
Ph: (02) 9281 5515  
Email: [policy@wwf.org.au](mailto:policy@wwf.org.au)  
[www.wwf.org.au](http://www.wwf.org.au)

World Wide Fund For Nature Australia  
15/71 Constitution Avenue  
Campbell 2612  
Ph: (02) 6257 4010  
Email: [policy@wwf.org.au](mailto:policy@wwf.org.au)  
[www.wwf.org.au](http://www.wwf.org.au)

ACN: 001 594 074

---

## OVERVIEW

To conserve the Australian environment the Commonwealth Government must take immediate, decisive and targeted action to address the threats to our biodiversity, rather than relying on opportunistic or community-based responses. Policy and funding must be focussed to mitigate the five major threats to our environment:

- Poor land management practice, particularly clearing of native vegetation
- The incursion of exotic and invasive species
- Over use and degradation of water resources
- High levels of greenhouse gas emissions
- Land-based sources of marine pollution
- Unsustainable exploitation of natural resources

At the 1997 November Council of Australian Governments (COAG) meeting 28 matters, or issues, were identified as being of National Environmental Significance. Of these, six were later regulated under the *Environment Protection and Biodiversity Conservation Act (1999)* (EPBC Act). Conserving these nationally recognised matters provides the clearest and most cost-effective opportunity to generate real, measurable and sustainable outcomes for the Australian environment. Adding additional matters to the Act that address significant threats not presently well covered is also a priority for action.

The following sections outline **14 key policy and program initiatives** that WWF Australia believes are critical for the protection and conservation of Australia's environment over the next term of government.

Each of these initiatives is designed to achieve direct conservation of matters of National Environmental Significance, or to make the government mechanisms that drive conservation more targeted and cost efficient. These initiatives are grounded in sound science, while recognising the realities of Australian society and politics in the year 2001. Where possible, examples and case studies from WWF information and field programs have been included. Further information is available on request.

### WHAT IS BIODIVERSITY?

"Biodiversity" refers to the variety of life forms – plants, animals, microorganisms, the genetic material they contain and the ecosystems they form. The interaction of species and the "ecosystem services" which results is what ultimately supports human existence in any given environment. Examples of such "ecosystem services" include provision of clean water, nutrient recycling, and waste decomposition.

Given it is not practical to describe and monitor equally all aspects of biodiversity in managing our landscapes (for example: microorganisms and genetic diversity), a number of surrogates have been identified which provide focal points for actions which will protect, restore or evaluate biodiversity in an identified area. These include animals and plants (birds, mammals, fish, vascular plants and some invertebrates such as butterflies and crayfish), and ecological communities (groups of co-evolving plants and animals, usually found within a particular geographic location – e.g. "redgum" forests).

## 1. Investing in a sustainable Australia.

**The Commonwealth Government must provide significant new funds for environment purposes and should:**

- **Consider the introduction of an "environmental levy" as recommended in the House of Representatives Standing Committee on Environment and Heritage report.**

The above report<sup>3</sup> referred to a number of estimates of the level of funding needed to reverse the degradation of Australia's natural resource base. The following are some examples:



- Mr Ted Evans, Treasury Secretary, is reported to have estimated the cost of repairing the Murray Darling Basin (MDB) to be at least \$30 billion;
- Dr Carl Binning, CSIRO, is reported to have estimated that at least \$100 billion must be invested in the environment over the next 10 years;
- The ACF/NFF report (*National investment in rural landscapes*) estimated that \$60 billion was required over a 10 year period, with an annual maintenance program of \$0.5 billion. The public investment component of the 10 year annual \$6 billion program was estimated to be \$3.7 billion per year.

Currently Commonwealth Government expenditure on the environment is about \$0.5 billion annually. There is clearly an urgent need to find further funds. The Standing Committee recommended a means tested environment levy (similar to the Medicare levy) to spread the cost of biodiversity conservation across all sectors of the Australian community, and to create a guaranteed annual fund for investment in conservation and the promotion of lasting ecologically sustainable land use. The Standing Committee's report indicated an estimated \$3,905 million annually could be generated through the application of a very modest levy.

**It is important to note that WWF is not suggesting a higher tax rate, but advocates a mechanism which may quarantine a dedicated percentage of tax receipts for conservation.**

## 2. Curbing greenhouse gas emissions

**Australia must play a responsible role in mitigating global climate change and the Commonwealth Government should:**

- **Ratify and move to implement the Kyoto Protocol as soon as possible.**
- **Commit to working with all like-minded countries to finalise the Kyoto Protocol at the next Conference of the Parties of the United Nations Framework Convention on Climate Change, so as to achieve real and measurable reductions in CO<sub>2</sub> and other greenhouse gas emissions from industrialised nations.**

Australia cannot afford a casual attitude to climate change. We are likely to experience the world's most rapid and severe change in average temperature if current emission levels are not capped. Predicted impacts of climate change include the following:

- By 2100, a rise in sea level of between 9 and 88cm<sup>4</sup>;
- By 2030, an average annual increase in temperature over most of Australia of between 0.4 to 2.0 degrees C, and an increase of between 1.0 and 6.0 degrees C by 2070<sup>5</sup>;
- Changes in rainfall patterns particularly in southern Australia, with a reduction of up to 60% predicted for south-west Australia by 2070<sup>6</sup>. Regional modeling for the Macquarie River predict a reduction in mean annual run-off of between 11 and 30% by 2030<sup>7</sup>, impacting on the availability of water for the environment and agriculture;
- Further pressure on species with limited distribution and habitat at risk from climate change. For example, species such as the mountain pygmy possum, confined to sub-alpine and alpine regions, are particularly at risk<sup>8</sup>;
- Altered productivity and land use in major agricultural regions in response to changes in rainfall, evaporation, temperature and the spread of pests and weeds<sup>9</sup>.

### 3. Mitigating the impacts of salinity

**The Commonwealth Government must take major action to reduce the harmful impacts of salinity and should:**

- **Fully implement the COAG National Action Plan for Salinity and Water Quality, including the development of integrated biodiversity outcomes within all planning and delivery mechanisms.**

The National Land and Water Resources Audit<sup>10</sup> estimates that nearly 5.7 million hectares are considered at risk from dryland salinity – a figure that could triple to 17 million hectares by 2050 (or roughly 340,000 hectares each year). Nationally, the cost of lost agricultural production and environmental damage attributable to salinity is \$250 million per year and rising<sup>11</sup>. These costs are borne by farmers, local government and government agencies. Voluntary landcare projects have failed to adequately reduce salinity, and should be refocused to ensure that strategies to mitigate salinity occur in precisely the right location, and are rapid and extensive enough to achieve a real impact.

Loss of biodiversity through landclearing has also been a major cause of dryland salinity as well as contributing to the decline in water quality. Biodiversity conservation and restoration will contribute a large part of the solution to these problems. In order to mitigate salinity and improve water quality, relevant biodiversity targets must be developed and achieved.

A well-targeted program will deliver vastly improved biodiversity, reduction in greenhouse emissions and significant mitigation salinity. WWF's Liverpool Plains Catchment Management project is a highly effective case study of such an approach. This is an area where the local community has invested in natural resource information to determine the location and relative efficiency of actions to mitigate regional salinity problems. Three main actions have been identified to date: changing cropping practices; maintaining ground cover; and maintaining tree cover. WWF is working with the community to collect relevant biodiversity information for an environmental benefits index that will prioritise locations for relevant conservation activities. The activities will provide both salinity mitigation and biodiversity conservation benefits. Specific works will be delivered through an auction process (similar to that used in the United States Conservation Reserve Program) to target work to the most important sites at a rate calculated to most efficiently achieve the desired outcomes.

Effective implementation of the COAG National Action Plan also requires:

- streamlining state and Commonwealth management of funding for regions;
- ensuring substantial matching contributions from state governments and regional communities;
- cross-compliance to ensure national standards are met by regions in return for funds; and
- accreditation of both regional natural resource management organisations, and of their plans, that is linked to the scale of funding provided.

#### 4. A major reduction in vegetation clearing

**The Commonwealth Government must take a leadership role in reducing land clearing and protecting threatened native vegetation types and should:**

- Add vegetation clearing as a matter of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act (1999)* with an appropriately low threshold;
- Add Vulnerable Ecological Communities as a matter of National Environmental Significance under the *Environment Protection and Biodiversity Conservation Act (1999)* to protect those communities vulnerable to extinction from clearing;
- Introduce an immediate and permanent moratorium on clearing in the Murray-Darling Basin, the Great Barrier Reef catchment and other vulnerable catchments;
- Make funds available in a transition period to assist landholders deleteriously affected by the new vegetation protection legislation; and
- Re-fund the National Reserve System to purchase significant areas of wildlife habitat for conservation reserves.

Currently, Australia has the highest land clearing rate in the developed world, with one state - Queensland - clearing 425,000 hectares annually between 1997-1999<sup>12</sup>.

Land clearing is the major cause of recent dryland salinity, which degrades vast areas of productive agricultural land, poisons rivers and water supplies, damages infrastructure such as roads, and threatens remaining native vegetation. In 1997 WWF had the value of the increased agricultural production from this vegetation destruction costed at a net present value (the future net value in today's terms) of only \$277 million<sup>13</sup>.

Controlling salinity and rehabilitating salt-affected land is extremely costly to society. NSW already has 180 000 ha of productive farmland affected by dryland salinity. This area is expected to increase eight-fold by 2050. Nationally, the cost of lost agricultural production and environmental damage attributable to salinity is now \$250 million per year and rising<sup>14</sup>. These costs are borne by farmers, local government and government agencies. The rivers draining Queensland's section of the Murray Darling Basin are among those predicted to become too salty to drink in 20 years<sup>15</sup>. About 40% of the vegetation destruction in Queensland is occurring in these catchments, mostly for economically marginal pastoral production.

In addition, by destroying habitat, land clearing leads to the permanent loss of species and ecosystems. In the most extensively cleared areas of NSW, there is documented evidence of localised extinctions of woodland birds and mammals as a result of land clearing. For example, in the central woodland belt of NSW, twenty bird species, including the barking owl and regent honeyeater, are threatened with extinction.<sup>16</sup>

Land clearing accounts for around 13.5% of Australia's greenhouse gas emissions<sup>17</sup>. Rising temperatures, increased frequency of droughts and floods, and changing climate zones will have serious implications for rural industries and communities.

South Australia and Victoria have both achieved substantial reductions in clearing through regulation, which indicates that this approach is likely to achieve real progress in reducing the clearing rate nationally if implemented through the EPBC Act.

Additionally, under the National Reserve System, progress has been made to conserve over six million hectares of critical habitat in the last five years. Through revolving funds, additional areas are being

purchased, protected by legal agreement, and resold to conservation-minded owners. Purchase of important areas of native vegetation is a quick and direct means of conserving bushland at risk of clearing, preventing greenhouse gas emissions, halting land degradation and diversifying rural economies.

## 5. A new environmental funding program

**The Commonwealth Government must develop a strategic approach to environmental funding for matters of National Environmental Significance and should:**

- **Reform existing approaches through initiation of a post-Natural Heritage Trust (NHT) program that has an increased budget, utilises regional planning models and incorporates a complementary national biodiversity program.**

With the end of the initial stage of the NHT and the development of the new National Action Plan for Salinity and Water Quality (NAP), a new delivery mechanism is required for investment in our biodiversity and natural resources. Such a program should complement the objectives of the NAP and facilitate nationally consistent regional planning and conservation initiatives for other matters of National Environmental Significance.

Funding for this new environment investment program needs to be substantially higher than the current NHT provisions (see previous section). Equitable state, territory and federal financial contributions would ensure national consistency and state/territory participation. This should be achieved through a Commonwealth/state bilateral agreement to ensure compliance. In regions not covered by the NAP, existing NHT regions should be retained as the basis for regional planning processes carried out by regional committees (currently there are 58 regions). Regional plans should require accreditation by the Commonwealth Environment and Agriculture Ministers and should then both guide and limit the actions that may be funded.

The Auditor-General's report on NHT performance management indicated that it was difficult to determine how much of the achieved biodiversity outcomes were commensurate with the funds spent.<sup>18</sup> To overcome this, regional plans must be required to deliver management plans and implementation of key actions on a national scale for all 28 matters of National Environmental Significance (NES) identified at the November 1997 COAG meeting, with particular emphasis on the matters of NES formalised under the *Environment Protection and Biodiversity Conservation Act (1999)*. Much of this work would be achieved by tendering out strategic projects, rather than reactive grants programs.

It is critical that a national environment investment program also addresses national priorities. In many instances these priority issues cross catchment boundaries, such as the control of invasive species, or the recovery of threatened species and ecological communities. Governance of the program should be enhanced by the appointment of an expert-based advisory body reporting to COAG, similar to the National Competition Council, on the priorities for, and best use of Commonwealth environment funds.

## 6. Strengthening the *Environment Protection and Biodiversity Conservation Act (1999)*

**The Commonwealth Government must complete the task of national environmental legislation reform and should:**

- **Strengthen the EPBC Act through the addition of new matters of National Environmental Significance; and**
- **Restrict possible exemptions to the Act.**

The *Environment Protection and Biodiversity Conservation Act (1999)* is a vast improvement on previous Commonwealth legislation regulating the environment. However the Act should be strengthened to ensure the Commonwealth can intervene where states fail to fulfil their environmental responsibilities on issues such as land clearing, and to ensure that the Commonwealth Minister for the Environment cannot delegate the ability to approve damaging developments to less responsible authorities.

In March 2000, WWF and the Humane Society International established an 'EPBC Unit' to support the implementation of the Act. As a result, WWF has a detailed knowledge and understanding of the Act, and a strong capacity to contribute to its further development. The Act should be strengthened in the following ways:

- Adding new matters of National Environmental Significance related to greenhouse gas emissions, land clearing, sustainable water use, vulnerable ecological communities, salinity, Commonwealth and national heritage sites;
- Restricting the possible exemptions to the Act by removing the capacity for approval powers to be delegated to states through approval bilateral agreements (s46) or to other Commonwealth agencies through Ministerial approval declarations (s33), and ensuring that Ministerial assessment declarations (s84) expire after 5 years, as is currently the case for state bilateral agreements.

Amendments to the Act to reduce land clearing are critical. Given that South Australia and Victoria have already achieved substantial reductions in clearing during the 1980's through regulation, the evidence suggests that this approach is likely to achieve real progress in reducing the clearing rate nationally if implemented through the EPBC Act.

## 7. Reducing the threat posed by invasive species

**The Commonwealth Government must take a lead in addressing nationally listed key threats, such as feral animals and weeds, and should:**

- **Introduce a nationally coordinated Invasive Species Program that seeks to identify and eradicate "sleeper" species, prevent new incursions, and strategically assess and direct eradication efforts for species that have become pests.**

After habitat loss, invasive plant and animal species are responsible for more species extinctions than any other cause<sup>19</sup>. Up to 70% of the weeds are introduced intentionally, for example as ornamental plants or pastures, and there are about 1000 introduced weeds here – of which 300 have become established in the last 25 years. About 10 new species establish themselves in Australia each year and the rate of establishment is increasing. All Australian conservation areas are now affected. Invasive weed species cost at least \$3.3 billion each year in control actions, lost production and contamination<sup>20</sup>.

Although proposed plant imports are now screened to exclude potential weeds, there are thousands of exotic plants already in Australia - many of which are “sleeper weeds” that gradually spread until they gain a foothold and become major pests.

Currently there is no national program to identify emerging “sleeper” weeds and eradicate them while it is still feasible and cost effective. State governments tend not to declare a species a “noxious weed” until it is beyond control. In addition, species recognised as “noxious” in one state are not necessarily considered so in another state. Clearly a national invasive species program could achieve real and necessary threat mitigation, contributing significantly to the conservation of matters of National Environmental Significance.

Similarly, if major progress is to be made in reducing the threat to native species already posed by a wide variety of feral animals, a more strategic and well-funded Commonwealth program is required. Greater effort is required to develop and target effective pest control actions in regions of highest priority. Specific regions should be targeted to develop large-scale integrated pest management programs.

## 8. Recovery of threatened species and ecological communities

**The Commonwealth Government must improve the success of national endangered species programs and should:**

- **Use regional planning mechanisms to integrate species and ecological communities conservation, ensuring that all major programs/actions funded by the Commonwealth are required to include relevant actions to conserve nationally threatened species and ecological communities; and**
- **Enhance the national Endangered Species Program budget to the magnitude required (approximately \$30 million per annum) to deliver effective conservation of nationally listed species.**

Australia has a high proportion of endemic (unique) flora and fauna. About 85% of plants, 82% of mammals, 45% of land birds, 89% of reptiles and 93% of Australia's frogs occur nowhere else in the world<sup>21</sup>. Additionally, we have a high number of ecological communities (groups of co-evolving plants and animals usually found within a particular geographic location) which are rare and/or threatened, such as the woodlands and heaths of south-western WA, a region of global significance for plant biodiversity.

As it may not be practical to describe and monitor all aspects of biodiversity in managing our landscapes (for example micro-organisms and genetic diversity), a number of surrogates or “indicator species” can be used to provide focal points for actions which will protect, restore or evaluate biodiversity in an identified area. The surrogates generally used include: species of animals and plants (generally bird, mammal, fish and reptile species; vascular plants; and some invertebrates such as butterflies and crayfish); and ecological communities (groups of co-evolving plants and animals, usually found within a particular geographic location – e.g. bushland types such as redgum forests, or native grasslands).

Conservation of threatened species and ecological communities is not expensive compared to other priority areas, but will require funding far greater than the \$5.5 million per annum currently allocated. In order to be achieved cost effectively, species conservation will require mitigation of key threats at a multi-species or landscape level. Species conservation activities will need to become an integral part of natural resource planning and decision-making, rather than an afterthought. The problems associated with ongoing declines of many species as a result of past habitat loss, the impact of invasive

species, and climate change will require considerably greater effort than has traditionally been placed on species conservation. New methods are required to enable urban, rural and traditional communities to make use of scientific knowledge as well as their own practical experience and resources.

## 9. Conserving wetlands

**The Commonwealth Government must enhance the conservation status of wetlands of national significance and should:**

- **List 21 sites over 3 years on the International Convention on Wetlands (Ramsar Convention) – particularly those owned by the Department of Defence and in Commonwealth marine areas; and**
- **Support better management of the 851 Wetlands of National Importance identified by state and Commonwealth governments.**

More than 50% of the wetlands that existed at the time of European settlement have been altered beyond recognition with a consequent loss of wildlife living in or near them<sup>22</sup>. On the Swan Coastal Plain of Western Australia, 75% of wetlands have been filled or drained<sup>23</sup>, 89% of wetlands in south-east South Australia have been destroyed<sup>24</sup>, areas of both shallow and deep freshwater marsh wetlands in Victoria have been reduced by more than 70%<sup>25</sup>, and between 60-80% of wetlands in the Wet Tropics coastal region have been lost<sup>26</sup>. Current wetland use and management is causing environmental damage to every kind of wetland habitat across Australia.

Australia is a party to the International Convention on Wetlands Conservation (the Ramsar Convention) which promotes and supports wise use and appropriate management of wetlands. The Ramsar Convention is the best tool for ensuring wise use of wetlands as it provides a framework for conservation of wetlands with a range of different landowners, which integrates conservation and sustainable production. WWF has pioneered Ramsar wetland conservation agreements with private landholders in Australia, such as those in the Gwydir Wetlands and Macquarie Marshes in NSW. These agreements recognise that sustainable uses, including pastoral production, and wetland conservation can co-exist.

Existing inland and coastal water habitats need greater levels of protection to ensure the immediate threats, such as drainage or alteration, are removed and that water of adequate quantity and quality is supplied. The Commonwealth is well placed to assist in this matter. For example, Darwin Harbour and Shoalwater Bay (NT) contain 26,000 hectares of mangroves that are of critical importance for fish breeding and conservation of flora and fauna. This is one of the largest areas of mangroves in Australia and is threatened by poorly sited industry and development. The Department of Defence owns significant sites around Darwin Harbour that should be listed under the Ramsar Convention to receive Commonwealth legal protection. The Department of Defence also owns significant wetlands at the mouth of the Victoria River (NT), the Wildman River on the Mount Bundy Training Area adjacent to Kakadu National Park (NT), and Cape Range (WA) which are all candidates for listing. Wetlands conservation and defence training can co-exist, with Ramsar listing offering significant benefits for these important coastal systems.

## 10. Improving water management nationally, and in the Murray Darling Basin

**The Commonwealth Government must provide leadership to enhance restoration of the environmental health of our rivers and other freshwater ecosystems and should:**

- Facilitate the revision of the COAG Water Resources Agreement through better integration with water market operations in order to conserve important biodiversity indicators such as native fish species, waterbird breeding colonies, and the health of floodplain forests and estuaries.

The COAG Water Resources Agreement has facilitated the establishment of water markets that increasingly apply the 'user pays principle'. Despite some water use efficiency gains, there has been little benefit so far for the environment. WWF proposes that the COAG Agreement be revised to include:

- A national process for establishing environmental flows by reducing water allocations;
- Cost recovery to include a commercial rate of return on water infrastructure;
- Adequate fish passage through all instream infrastructure (dams and weirs);
- Elimination of thermal pollution from large dams;
- Removal of redundant infrastructure;
- Purchase of flood easements to enable beneficial flood flows, such as on the Murray and Macquarie Rivers;
- Legal rights of landholders and fishing industry to receive 'natural' beneficial flooding;
- Return of publicly funded water efficiency savings to environmental flows;
- Regulation and cost recovery on floodplain infrastructure (levee banks and channels);
- Regulation of 'overland flow' water abstraction; and
- Restrictions on water market trading where a trade may impact on the ecology of a river valley (e.g. trading water allocations between rivers or catchments).

The Murray Darling Basin (MDB) has been identified by WWF as one of 200 globally important ecoregions<sup>27</sup>. The MDB is Australia's largest river system, covering 14% of Australia's total landmass (over one million square kilometres), and crossing six government jurisdictions<sup>28</sup>. The total population exceeds 2 million and the MDB supplies 40% of Australia's total agricultural product<sup>29</sup>. Human activity has dramatically altered the natural water regime to the point where its significant environments, and the people and industries that depend on them, are now seriously threatened.

The MDB contains a large number of plants and animals, many of which are unique to Australia and of national or international significance. Twenty fish species, 24 frogs, 151 reptiles, 367 birds and 85 mammals were originally found within the MDB - many of which remain dependent upon the health of the river system and its wetlands and play a critical role in maintaining functional ecosystems<sup>30</sup>. WWF has highlighted the threats to this biodiversity by nominating the entire freshwater animal community of the lower Murray for legal protection under Commonwealth law. In addition, WWF has demonstrated a practical and innovative response to wetlands conservation by negotiating conservation agreements for significant wetlands on private land under the Ramsar Convention on Wetlands and under Commonwealth law.

The lower Murray River system is an example of the effects of an over-allocated system where the environment is declining. Over 80% of the flow of the Murray River is diverted for human use, causing declines in fish populations and floodplain forests, and exacerbating salinity<sup>31</sup>. Practical measures are needed to restore the river's health, starting with a 1,000 gigalitres annual average



environmental flow to flush open the mouth. Removal of the barrages in the Murray River estuary is required to restore fish and waterbird populations, flush open the Murray River mouth, and reduce freshwater evaporation.

## 11. Support for Indigenous land and sea management

**The Commonwealth Government must facilitate Aboriginal land management programs and should:**

- **Provide long term financial support for conservation work in the public interest – including management of Indigenous Protected Areas.**

Currently, indigenous communities manage at least 16% of Australia's land<sup>32</sup> – a proportion that is increasing over time. WWF is working with indigenous communities from western New South Wales to Northern Australia. Many of these communities have responsibility for environmentally significant land and are eager to apply their traditional knowledge and other skills to manage it well and in keeping with the interests of the wider Australian community. Many of these communities also experience high unemployment rates and other measures of social and financial disadvantage. An environmental management program with these communities is one clear and positive option for addressing this disadvantage, valuing indigenous culture and contributing to the conservation of Australia's environment.

Many Indigenous landholding communities have established professional land management programs, often using Community Employment Development Program workers, to undertake: law enforcement; visitor, fisheries, weed and feral animal management; and maintain traditional fire and other cultural management practices. Traditional owners have declared and are managing 3 million hectares of land as Indigenous Protected Areas<sup>33</sup>. These activities are in the public interest yet their management programs struggle from year to year on short-term government grant funds. Often there are no other commercial sources of income to manage these lands. Accredited, public interest Indigenous land management organisations should receive modest but long term funding to ensure they have a professional core administration to coordinate management of these environmentally and culturally valuable lands.

## 12. Protecting the Great Barrier Reef

**The Commonwealth Government must take a major responsibility in protecting the World Heritage values of the Great Barrier Reef and should:**

- **Support the Representative Areas Program run by the Great Barrier Reef Marine Park Authority to establish a network of highly protected areas within the World Heritage Area;**
- **Support a phase out of bottom trawling in the Great Barrier Reef World Heritage Area by 2007;**
- **Provide funds for major investment in research and development of alternatives to bottom trawling methods; and**
- **Implement a Water Quality Strategy that commits to legislated targets to reduce land-based sources of pollution and actions needed across key catchments to meet those targets.**

The Great Barrier Reef (GBR) is the largest of the world's 552 World Heritage Areas, stretching for over 2,000km along the north-eastern coast of Australia<sup>34</sup>. The marine park contains more than 2,900

catalogued reefs, globally significant populations of endangered species (including six of the world's seven species of marine turtles<sup>35</sup> and one of the world's most important dugong populations<sup>36</sup>), over 1,500 species of fish, as well as significant habitat types such as seagrass meadows and mangrove forests which provide vital feeding and breeding grounds for many marine species. The GBR is also a profitable resource sustaining a \$1.5 billion tourism industry and a \$250 million commercial fishing industry, as well as providing recreational pleasure for thousands of divers, amateur fishers and families of nature lovers.

This international icon and national treasure is rapidly collapsing under the pressure brought about by the demands on its resources and burgeoning coastal zone development around its perimeters. Currently only 4.5% of the Park is fully protected under designated "Green Zones"<sup>37</sup>. The GBR Marine Park Authority is implementing a program to ensure comprehensive protection of the Marine Park in green zones throughout all of the Park's 71 bioregions<sup>38</sup>. This program (the Representative Areas Program) will make a leading contribution to marine conservation globally and give the World Heritage Area the protection it deserves, and that Australians expect.

Unsustainable fishing practices are widespread within the World Heritage Area. Prawn trawling, for example, damages as much as 25% of seabed life in a single trawl, and up to 90% after 13 trawls<sup>39</sup>. Additionally, for every tonne of prawns caught, up to 10 tonnes of other marine animals are caught and thrown back dead. Land-based sources of pollution are also a major threat, with an estimated 28 million tonnes of sediment and thousands of tonnes of nitrogen and phosphorus from agriculture, industrial and urban sources fouling the inshore waters of the GBR every year<sup>40</sup>. If these, and other threats such as coral bleaching caused by global warming, continue unabated the Great Barrier Reef could be dead in the next 40-70 years<sup>41</sup>.

Conservation of the Great Barrier Reef will require a range of measures that are likely to involve a restriction of commercial fishing and therefore will require a significant structural adjustment package, as yet uncosted.

### 13. Greening aid and development expenditure

**The Commonwealth Government must play a positive role in the sustainable development of the region and should:**

- **Increase funding for overseas aid annually to reach 0.4% of GDP by 2004;**
- **Invest more in projects that directly target environmental issues, particularly the management of natural resources; and**
- **Increase support for sustainable forest management both by government and communities, particularly in Papua New Guinea (PNG), Solomon Islands and Indonesia.**

Australia's economic, environmental, social and political security is unequivocally linked to those of the geographic region and beyond. Recent events in Australia's geographic region such as fires, droughts and the Asian currency crisis provide stark evidence of our interdependence. The provision of aid that assists the in the creation of healthy, educated, working communities in our geographic region is an investment in potential markets for Australian exports. Australia's aid level for these countries has not kept pace with our Gross National Product (GNP) per capita growth. Given the economic growth estimates of 3.2%, the recommended increase in aid could be implemented without cuts in government spending or tax increases. An increase in aid is essential in meeting Australia's obligations under major international agreements.

The development of low income countries must be sustainable in order to achieve long-term poverty alleviation. Often people in developing countries have no other option than to exploit their natural

resources. In addition poor people are often the most vulnerable victims of environmental damage - for example through their exposure to contaminated water and water-borne diseases. The resultant poor health means their income-earning capabilities decline - leading to further exploitation of natural resources in an effort to satisfy basic needs. These people are also often the most vulnerable to environmental disasters, such as uncontrolled forest fires that have been started for land clearing and land slides that result from excessive logging. It is critical that further aid should be invested in environmental projects, particularly those relating to management of natural resources.

In the Solomon Islands the Australian government should provide a leadership role in encouraging the Solomon Islands government to honour the implementation of the new forestry legislation. Forest resources are paramount to the short and long-term development of the Solomon Islands. The current AusAID Forestry Project should not be shelved but the timing should be extended and activities redirected to other locations.

Similarly in PNG, the Australian Government should remain actively engaged in forestry issues and continue to support the World Bank Forest Conservation Project. However, given that this project does not cover community-based forestry, the Australian government should also actively engage with non-government organisations to support forest conservation and community based alternatives to large scale destructive logging.

#### 14. Sustaining the marine environment

**The Commonwealth Government must take primary responsibility for management of the Australian Exclusive Economic Zone (EEZ) through the National Oceans Policy and should:**

- **Implement the National Reserve System of Marine Protected Areas including a comprehensive, adequate and representative network of no-take fishing zones;**
- **Proceed with development and implementation of regional marine plans;**
- **Develop a National Plan of Action to combat Illegal, Unregulated, and Unreported Fishing;**
- **Develop national oceans legislation to ensure the full and timely implementation of the Oceans Policy by the states and Northern Territory; and**
- **Ensure robust and transparent ecological assessment of all Commonwealth and state fisheries.**

Australia's Oceans Policy provides the framework for integrated ecosystem-based planning and management for the whole of Australia's marine jurisdiction. Although the states and Northern Territory have not officially signed on to the policy, state-based catchment management and coastal planning are adding value to Commonwealth activities and therefore help deliver the objectives described in the Oceans Policy.

The Oceans Policy is already in train and the main mechanisms for delivering the policy must be maintained and enhanced. The budget for the National Oceans Office should be extended and increased from the initial \$50 million over three years to at least \$80 million over the same period, in order to fully and appropriately implement the Policy. The National System of Marine Protected Areas (MPAs) should be increased until all sites, species and habitats of high conservation value are represented and replicated within the system. Cross-jurisdictional and High Seas MPAs have to be identified as a means to bringing areas of conservation value under cooperative management. This should include seamounts, ridges, canyons and other areas of biological significance.

Of the 27 Commonwealth managed fisheries, there are 15 with uncertain stock status (including 9 species in the South East Trawl Fishery ) 10 are fully fished, 4 over-fished and only one officially

underfished<sup>42</sup>. There is considerable uncertainty in the actual stock assessments for some species which is a critical problem for effective sustainable management.

The ecological impacts of these fisheries, as well as the ecological interactions of the fisheries within the wider marine ecosystem, are largely unknown and in many instances management is solely focused on individual stocks. WWF supports an integrated ecosystem based management approach for sustainable fisheries and is fostering this approach through encouraging those involved with fisheries management to start to identify and understand the ecological interactions of the target species and where necessary minimise risks to the wider ecosystem.

Illegal, unregulated, and unreported fishing imposes huge costs on licensed fisheries and commercially targeted species through depletion and commercial extinction of fish stocks. It also imposes a huge cost on the environment through by-catch of seabirds and other non-target species. A cooperative Southern Hemisphere approach, led by Australia, is required to stamp out this practice. This approach should include dedicated rapid response vessels to improve our capacity to deal quickly with the perpetrators when identified. Additionally, there must be recognition by Australia that the Convention under which the Antarctic fisheries are regulated in a precautionary manner is a conservation convention and not merely a Regional Fisheries Management Organisation.

## Summary

Australia's extraordinary natural wealth is clearly under threat as indicated by:

- Ongoing loss of biodiversity (including the breakdown of ecosystem function and integrity, and loss of species);
- Rising levels of salinity and declines in water quality; and
- Predicted impacts of climate change (including coral bleaching).

However, with political will and sufficient funding, it is possible to achieve substantial conservation gains in a relatively short amount of time. The Commonwealth Government has a clear leadership role and mandate from COAG to conserve Matters of National Environmental Significance. The measures outlined in this statement show how, with additional and better targeted funding and programs, the Commonwealth can fulfil these environmental obligations to the people of Australia.

**More detailed information regarding all of the proposed initiatives is available by contacting WWF in Sydney or Canberra.**

World Wide Fund For Nature Australia  
Level 5, 725 George Street  
Sydney 2001  
Ph: (02) 9281 5515  
Email: [policy@wwf.org.au](mailto:policy@wwf.org.au)  
[www.wwf.org.au](http://www.wwf.org.au)

World Wide Fund For Nature Australia  
15/71 Constitution Avenue  
Campbell 2612  
Ph: (02) 6257 4010  
Email: [policy@wwf.org.au](mailto:policy@wwf.org.au)  
[www.wwf.org.au](http://www.wwf.org.au)

ACN 001 594 074

- <sup>1</sup> Sarukhan, J and R. Dirzon (2001) in Levin, S. A (ed.). *Encyclopedia of Biodiversity* (pp419-436). Academic Press, NY.
- <sup>2</sup> *Living Planet Report 2000*, WWF - World Wide Fund for Nature (formerly World Wildlife Fund), Gland, Switzerland
- <sup>3</sup> House of Representatives Standing Committee on Environment and Heritage, *Coordinating Catchment Management*, December 2000 (HORSECH)
- <sup>4</sup> Climate Change Predictions for Australia, CSIRO 2001
- <sup>5</sup> Ibid
- <sup>6</sup> Ibid
- <sup>7</sup> Hassall and Associates et al (1998) *Climate Change Scenarios and Managing the Scarce Resources of the Macquarie River*, Report for the Australian Greenhouse Office, Canberra
- <sup>8</sup> IPCC, Special Report of IPCC Working Group II. *Australasian Impacts of Climate Change, An Assessment of Vulnerability*
- <sup>9</sup> Ibid
- <sup>10</sup> National Land and Water Resources Audit – Australian Dryland Salinity Assessment 2000, Commonwealth of Australia
- <sup>11</sup> Ibid
- <sup>12</sup> *Landcover Change in Queensland 1997-1999. A Statewide Landcover and Tree Study (SLATS) Report*, Department of Natural Resources, Queensland (2000)
- <sup>13</sup> *Vegetation Clearing and Greenhouse – A preliminary assessment of benefits of ending land clearing in Australia to curb greenhouse gas emissions*, World Wide Fund For Nature Australia 1997
- <sup>14</sup> National Land and Water Resources Audit – Australian Dryland Salinity Assessment 2000
- <sup>15</sup> The Salinity Audit of the Murray Darling Basin: A Hundred-Year perspective. MDBC, Canberra
- <sup>16</sup> Robinson, B and Traill, B *Conserving Woodland Birds in the Wheat and Sheep Belts of Southern Australia* in Wingspan Vol 6 no. 2, June 1996
- <sup>17</sup> Access Economics (prepared for ACF) *Greenhouse Implications of Increased Rates of Land Clearing* Canberra 2000
- <sup>18</sup> Performance Information for Commonwealth Financial Assistance under the Natural Heritage Trust – Department of Agriculture, Fisheries and Forestry, Department of the Environment and Heritage. Australian National Audit Office 2001
- <sup>19</sup> Weeds Cooperative Research Centre Website – [www.waite.adelaide.edu.au/CRCWMS](http://www.waite.adelaide.edu.au/CRCWMS)
- <sup>20</sup> CSIRO Entomology, Canberra – press release 17 August 2000, sourced from Weeds CRC website
- <sup>21</sup> *State of the Environment 1996*, Commonwealth of Australia
- <sup>22</sup> Environment Australia website – [www.ea.gov.au](http://www.ea.gov.au)
- <sup>23</sup> *Floodplains Wetlands Management Strategy for the Murray-Darling Basin*, Murray-Darling Basin Ministerial Council, 1998
- <sup>24</sup> Ibid
- <sup>25</sup> Ibid
- <sup>26</sup> Jon Brodie 2001 pers comm, former Director Water Quality, GBRMPA
- <sup>27</sup> *Global 200 Ecoregions Map*, World Wildlife Fund 2000
- <sup>28</sup> Murray Darling Basin Commission website: [www.mdbc.gov.au](http://www.mdbc.gov.au)
- <sup>29</sup> Ibid
- <sup>30</sup> Ibid
- <sup>31</sup> *An audit of water use in the Murray-Darling Basin*, Murray Darling Basin Ministerial Council, Canberra 1995
- <sup>32</sup> Szabo, Stephen *Indigenous Involvement in Protected Areas in Australia - Indigenous Protected Areas: A New Approach*, Landcare 2000 Conference Presentation
- <sup>33</sup> Environment Australia website – [www.ea.gov.au](http://www.ea.gov.au)
- <sup>34</sup> Wachenfeld, D R, J K Oliver and J I Morrissey, 1998, *State of the Great Barrier Reef World Heritage Area 1998*, Great Barrier Reef Marine Park Authority, Townsville
- <sup>35</sup> Dobbs, K, January 2001, *Marine Turtles in the Great Barrier Reef World Heritage Area*, GBRMPA
- <sup>36</sup> Stokes, T and K Dobbs, January 2001, *Fauna and Flora of the Great Barrier Reef World Heritage Area*, GBRMPA
- <sup>37</sup> Great Barrier Reef Marine Park Authority, September 2000, Representative Areas Program Update, GBRMPA
- <sup>38</sup> Day, J., L. Fernandes, A. Lewis, G. De'ath, S. Slegers, B. Barnett, B. Kerrigan, D. Breen, J. Innes, J. Oliver, T. Ward and D. Lowe 2001 *Protecting the Biodiversity of the Great Barrier Reef World Heritage Area* (in prep.)
- <sup>39</sup> Poiner, I, J Glaister, R Pitcher, C Burrige, T Wassenberg, N Gribble, B Hill, S Blaber, D Milton, D Brewer and N Ellis, 1998, *Final report on effects of trawling in the far northern Section of the Great Barrier Reef: 1991-1996*. CSIRO Division of Marine Research, Cleveland
- <sup>40</sup> Brodie, J (2001) paper submitted to Proceedings of the International Coral Reef Symposium 2000 (in prep.)
- <sup>41</sup> Hoegh-Guldberg, O, 1999, *Climate Change, Coral Bleaching and the Future of the World's Coral Reefs*, Greenpeace
- <sup>42</sup> Fisheries Status Reports 1999, Commonwealth of Australia