



Australian Government
Department of the Environment

Plan for a cleaner environment



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Cover images: (*Front*) The vulnerable purple-crowned fairy wren. Photo: Nick Rains. (*Back*) Former Bond Store, Broken Hill. Photo: Department of the Environment.

Minister's foreword

Australia's unique and diverse environment supports so much of what makes us great.

Our identity springs from our environment—from the Indigenous heritage of Uluru-Kata Tjuta and Kakadu to the Great Barrier Reef, from the majestic forests of South-East Australia and the internationally recognised biodiversity hot spot of Southwest Australia to Antarctica and our unique Australian flora and fauna.

We define ourselves and are identified by our environment.

A healthy environment is important for a healthy economy. Our way of life depends on clean air, clean land and clean water. Our sense of self is enhanced by our natural and cultural heritage, as is our attraction as a destination for tourism.

Our Plan for a Cleaner Environment has helped to deliver real solutions for Australia.

This brochure outlines how the four pillars of our environment plan—Clean Air, Clean Land, Clean Water and Heritage Protection, as well as our renewed support for innovation and a 20 year strategy for Antarctica—have contributed to the Government's vision of a great society by protecting and improving our environment for future generations. Since this plan was launched in September 2013, the Government has worked with individuals, communities and businesses on delivering cleaner air, land, water and heritage management without unnecessary bureaucracy. We have invested in science to find solutions to our challenges and supported local communities to put that knowledge to work on the ground.

Together, we are tackling climate change through successful policies including the Emissions Reduction Fund and Safeguard Mechanism, Renewable Energy Target, National Energy Productivity Plan, vehicle emission measures, a phase down in hydrofluorocarbon emissions and new support for innovation.

We are on track to beat our 2020 emissions reduction target by 78 million tonnes.

Already the Emissions Reduction Fund has achieved 143 million tonnes of abatement at an average price of \$12.10.



We will deliver 23.5 per cent of Australia's electricity from renewable sources by 2020.

We have committed \$1 billion in funding for low emissions technologies through the Clean Energy Innovation Fund.

We are working for a cleaner, greener environment in our cities, with the Smart Cities Plan.

The Australian Government has announced \$171 million of new funding for the reef on top of our existing \$140 million commitment to the Reef Trust. All up Australian governments are committing \$2 billion to the health of the reef through the Reef 2050 Plan.

Whether it's on the land, in our oceans, rivers or towns and cities, Australians are working with the Government to protect and maintain what is best from our past, while preparing the way for a better future.

A handwritten signature in blue ink, appearing to read 'Greg Hunt'.

Greg Hunt
Minister for the Environment

A full-page background image featuring a night sky filled with stars. The lower portion of the image shows a landscape with dark, silhouetted mountains and a bright, glowing horizon line that suggests a body of water reflecting light.

Our *Plan for a cleaner environment* is
central to the Government's vision for
a stronger Australia.

Clean Air

Australia is meeting our climate change targets, improving the environment and supporting an effective international response.



The Government's policies reduce emissions by boosting energy productivity, reducing waste, rehabilitating degraded land, increasing renewable energy and driving innovation. The Government's policies are addressing climate change while helping to reduce costs for households and businesses.

Meeting our international targets

By 2020, Australia will reduce its emissions to five per cent below 2000 levels. Australia has steadily reduced the task of meeting this target and is now on track to beat it by 78 million tonnes.

At last year's Paris climate change conference, Australia committed to reduce emissions by 26 to 28 per cent below 2005 levels by 2030. This is a strong, ambitious and responsible target, and is in step with the actions of major developed countries. Meeting it will involve real economic effort. It will see Australia's emissions per person halve and the emissions intensity of our economy reduce by two-thirds. These are among the biggest reductions internationally.

Emissions Reduction Fund

The Emissions Reduction Fund and the Safeguard Mechanism are at the core of the Government's approach to climate change. The \$2.55 billion fund is supporting Australian businesses, communities and landholders to undertake activities which reduce or avoid greenhouse gas emissions. The fund supports a variety of projects, including improving energy efficiency, capturing methane from landfills and storing carbon in forests and soils.

To date the Emissions Reduction Fund (ERF) has purchased 143 million tonnes of emissions reductions from hundreds of projects at an average price of \$12.10 per tonne.

The Safeguard Mechanism ensures emissions reductions purchased by the Government are not offset by significant rises in emissions above business-as-usual levels elsewhere in the economy. The Safeguard Mechanism will start on 1 July 2016.

Renewable Energy Target

The Renewable Energy Target will ensure 23.5 per cent of Australia's electricity comes from renewable sources by 2020.

The scheme is helping Australian households and businesses to install solar and other renewable energy technologies, transforming our electricity sector to cleaner and more diverse sources, and supporting growth and employment in the renewable energy sector.

Through the Renewable Energy Target, the Government is continuing to help households install rooftop solar panels or solar hot water systems. So far, over 2.5 million households have solar systems. Australia has the world's highest penetration rate of Solar PV on household roofs—15 per cent. This is more than double the next highest.

The Renewable Energy target will see a doubling of large scale renewable energy under the Renewable Energy Target by 2020.

Clean Energy Finance Corporation and the Australian Renewable Energy Agency

A global clean energy revolution is underway, and Australia is a part of it.

The Government has refocused the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation (CEFC) to drive innovation in clean energy technologies and create the jobs of the future.

The Government has established a \$1 billion Clean Energy Innovation Fund, which will help emerging clean energy technologies make the leap from demonstration to commercial deployment. By offering innovative equity and debt products, the Clean Energy Innovation Fund can accelerate the availability of new technologies to transform the energy market, and deliver better value for taxpayers.

The Government is delivering a \$350 million solar strategy and has committed \$100 million to the deployment of new large-scale solar projects, with 22 projects being assessed by ARENA. Internationally, Australia has joined with the United States, China and 17 other countries has committed to double investment in clean energy innovation over the next five years through the Mission Innovation initiative.

Making more productive use of Australia's energy

The National Energy Productivity Plan will reduce the amount of energy used for every dollar of economic activity by 40 per cent between 2015 and 2030. The plan includes measures to make energy choices easier, to drive innovation and more effective modern markets, and to improve the efficiency of appliances, equipment, buildings and transport. The plan will reduce consumer energy bills, reduce our emissions, and improve our competitiveness and economic growth.

Buildings are estimated to account for around one quarter of Australia's greenhouse gas emissions, mainly through electricity and gas use. Improving the efficiency of Australia's building fleet can lower costs for households and businesses, reduce fuel use and lower greenhouse gas emissions. Key actions under the plan include expanding the successful Commercial Building Disclosure programme to cover mid-size buildings, expanding National Australian Built Environment Rating System tools, working on new standards under the National Construction Code, finalising a new strategy on Government energy use and improving the energy efficiency and environmental performance of key appliances such as air conditioners, refrigerators and lighting



Improving vehicle efficiency

The Government has established a ministerial forum to explore options for improving the fuel efficiency of Australia's vehicle fleet. This includes consideration of Euro 6 standards, improved fuel quality standards and measures to increase the fuel efficiency of light vehicles. The outcome will be a detailed plan to reduce vehicle emissions and help consumers lower the cost of running their vehicles. The ERF offers opportunities to improve the efficiency of heavy vehicles in Australia, and further work is being progressed internationally on heavy vehicle efficiency through the G20 Transportation Task Group.

Montreal Protocol

HFCs—or hydro fluorocarbons—are potent greenhouse gases used in refrigerators and air conditioners. The Government is working with industry to fast track work to reduce domestic emissions of HFCs by 85 per cent by 2036. Australia is working internationally under the Montreal Protocol to secure agreement to a global phase-down on the same timeframe.

The Government has recently completed a comprehensive review of Australia's ozone protection and synthetic greenhouse gas programme, which identified a range of options to help achieve a domestic HFC phase-down.

National Clean Air Agreement

On 15 December 2015, Australia's Environment Ministers established the National Clean Air Agreement. The agreement seeks to ensure that the community continues to enjoy clean air and addresses the impacts on human health and the environment. It focuses on actions to reduce air pollution and improve air quality through cooperation between industry and government at the national, state and local level. Key measures already announced include world leading measurement standards for particulate matter, new pollution standards for small engines such as outboards and garden equipment, improved emissions standards for new wood heaters and new funding for air quality scientific research under the National Environmental Science Programme.

Clean Land

We are committed to protecting and repairing Australia's natural landscapes. Our Green Army, the National Landcare Programme and the 20 Million Trees initiative have been an outstanding success in supporting local communities to take action and protect their local environment.

Green Army

The Australian Government's Green Army programme has made a significant contribution not only to our environment, but also to the lives of young people and their communities throughout the country. Giving young Australians aged between 17 and 24 the opportunity to gain training and practical experience in environmental and heritage conservation, the Green Army helps participants find careers while also generating real benefits for the natural environment.

With 1145 local community projects announced across urban, regional and remote Australia, more than 5700 young Australians in over 700 Green Army teams have been making a real and positive difference on the ground. The programme is on track to exceed its commitment to engage 1000 Indigenous participants over the first five years.

In Australia's World Heritage areas, Green Army teams are helping improve the quality of water entering the Great Barrier Reef and are controlling Yellow Crazy Ants in the Wet Tropics.

Green Army projects are taking practical actions to address threatened species through activities such as habitat conservation, pest eradication and flora and fauna surveys.



Of the 397 projects approved under round four, more than 100 address priority birds and/or mammals and more than 90 address an action area (feral cats) identified in the Australian Government's Threatened Species Strategy.

Organisations hosting Green Army projects include Landcare groups, Indigenous organisations, natural resource management organisations and local and state governments.

Interest in the Green Army is increasing—we are receiving more and better quality project applications from community organisations with 93 per cent of hosts surveyed at end of March 2016 stating they would host a Green Army team again.

National Landcare Programme

Based on three simple principles—simple, local and long-term—the National Landcare Programme puts landcare back at the centre of caring for our land and decision making back in the hands of the local communities. It has dramatically simplified paperwork and provided more certainty for recipients, meaning locals can spend less time applying for funding and more time protecting their local environment. The programme goes beyond biodiversity conservation and environmental rehabilitation to promoting sustainable agriculture and tackling feral animals and weeds. Since the programme began in July 2014:

- \$1 billion has been committed over four years to 2017–18 to better natural resource management, with more than \$450 million flowing to Australia's 56 regional Natural Resource Management (NRM) organisations. They have responded to the challenge of investing 20 per cent of their National Landcare regional funding to community engagement activities with \$120 million supporting local groups, such as local landcare groups.
- Indigenous NRM activities are being supported with more than \$40 million, contributing to the Government's commitment to Closing the Gap on Indigenous Disadvantage.
- Landcare funding targets 291 local community groups under the 25th Anniversary Landcare Grants (a \$5 million one-off grant round); National Landcare networks (\$2 million); an assault on cane toads in the Kimberley with \$500,000 over two years for the Kimberley Cane Toad Clean Up Programme; and coastal river recovery with \$9.3 million to help protect the River Torrens, the Swan-Canning, Yarra and Tamar rivers, and New South Wales' Tuggerah Lakes.

- Littering is targeted with \$600,000 for Clean up Australia and Keep Australia Beautiful to tackle littering in public places over three years, particularly waterways and marine environments.
- Streamside infestations of Wandering Trad, improving the environmental health of the Dandenong Ranges in Victoria and raise awareness of traditional Indigenous culture is supported with \$3 million over three years.
- Restoration of Cumberland Plains woodlands through land covenants, land acquisition and activities under the Green Army and the 20 Million Trees Programme—\$15 million over three years and two new regional NRM organisations, OceanWatch and Peel-Harvey in Western Australia, have been established.

20 Million Trees

The planting of more than 13.4 million native trees is under way, covering 164 project locations across the country under the Australian Government's \$70 million programme to plant 20 million trees by 2020.

Aiming for environmental conservation, community engagement and carbon reduction, local project teams need to maximise the survival rates of native trees and vegetation. To do that they undertake a range of preparatory work such as weed removal and seed collecting before planting and make sure trees are planted at the right time of year for their location.

Projects range from small local revegetation activities to large landscape scale restoration works. Threatened species and threatened ecological communities are priorities for the programme, which will also benefit farmers and the agricultural sector as it provides shelter for stock, water quality improvement, weed control, carbon storage, crop pollination and soil health.



Threatened species

Australia is home to some of the world's most remarkable animals and plants. More than 80 per cent of our mammals and 90 per cent of our trees, ferns and shrubs occur nowhere else on earth. Since European settlement, over 130 of our known species have become extinct: lost to us and to the world forever.

The Australian Government's long-term goal is to recover our threatened animals and plants. Australia's first Threatened Species Strategy is on track to achieve its 2020 targets. After less than a year, this new roadmap to help fight extinction of our native flora and fauna is benefitting at-risk species with targeted, practical action.

We have appointed Australia's first Threatened Species Commissioner and mobilised more than \$208 million in projects with threatened species outcomes under the National Landcare Programme, Green Army, 20 Million Trees and other programmes. We are using the best science available to make sure our actions make a difference, investing \$30 million through the National Environmental Science Programme for a Threatened Species Recovery

research hub. We are supporting communities to take practical action, streamlining our regulatory framework, setting targets, and monitoring results. We have targeted 20 mammal, 20 bird and 30 plant species as priorities for action under the strategy and we are tackling the feral cats that threaten the survival of many of them.

This ambitious strategy complements the Government's existing responsibilities for threatened species protection and recovery under national environment law. If native species are in danger of extinction at a national scale, they can be protected by being listed as threatened under national environment law. If a species (or ecological community) is listed as nationally threatened, its listing will ensure that any proposed action, such as the clearance of habitat, likely to have a significant impact on the species must be referred to the Government to determine whether approval is required before it can proceed. In addition to this protection, nationally listed threatened species and ecological communities have conservation advices or recovery plans. These set out actions needed to stop the decline of, and support, the long term recovery of these species and ecological communities.

Parks

At Uluru-Kata Tjuta National Park staff and traditional owners are working together to conserve culturally and conservation significant species and their habitats. This includes implementation of fire management programmes based on traditional burning practices and the maintenance of the fenced Mala enclosure, in which this threatened marsupial can breed free from invasive species like feral cats.

The Government has an ambitious vision for sustainable tourism in our national parks. In Kakadu National Park, implementation of the *Kakadu Tourism Master Plan* has commenced. The *Mary River Tourism Development Plan* will soon be implemented as part of a broader strategic plan for Kakadu National Park. A three year marketing plan for Kakadu is in development, aiming to grow the higher-yielding and lower-impact 'Experience Seeker' market. For Uluru, two proposals from Uluru EOI process have been approved and are going ahead. One of these is a sustainable trek, starting at the S.A. border and finishing in the UKTNP. A number of other ideas are progressing well. The Government is also looking at expressions of interest in nature-based tourism projects on Christmas Island.

This year, in response to the impacts of late continued season wildfires, the Government has embarked on a comprehensive and well coordinated early season fire management programme. Traditional owners and rangers are working together to protect Kakadu from the devastating impacts of late season hot fires. As part of this research, up to 30 quolls, trained to avoid eating cane toads, have been released into the wild to breed and build numbers.

A world renowned Mimosa weeds programme is nearing completion and the Government is working with world leaders in rock art conservation to develop better ways of protecting the park's ancient culture. The Government's commitment to direct all revenue back into the Park has seen a multimillion dollar investment into 'sprucing' the park's assets with new shelters and signs, upgraded campgrounds and facilities.



Regulation

The Australian Government has continued to protect the environment, while improving business certainty and encouraging development that provides growth and jobs. We have approved over 200 projects, worth over \$1 trillion to the economy. We are also implementing a range of reforms focussed on streamlining environmental approvals. We have world class environmental standards and world class administration.

We have implemented a One-Stop Shop for environmental assessments, with bilateral agreements in place and operating in all states and territories. These agreements are reducing duplication in environmental assessments and improving regulatory efficiency, all while maintaining high environmental standards.

Deregulation

The Environment portfolio has been a leader in achieving deregulation savings, removing more than 860 spent or redundant legislative instruments and contributing a net saving of \$1 billion towards net regulatory burden savings to business, individuals and communities since 2013. This includes streamlined approvals of offshore petroleum projects worth \$120 million a year, the repeal of the carbon tax which has saved \$85 million a year and the One-Stop Shop for environmental approvals saving \$370 million a year.

Clean Water

The Government's Clean Water Plan has community-based and practical environmentalism at its core. It incorporates a sustainable plan for the Murray-Darling Basin and protection of the Great Barrier Reef.

Water for the environment

Delivering the right amount of water to the right place at the right time is benefitting the environment, as demonstrated by scientific reports analysing the impacts of Commonwealth environmental water use during 2014–15. This is part of a \$30 million investment in monitoring and evaluation projects across the Murray-Darling Basin over five years to 2020.

Restoring natural variability in river flows and reconnecting rivers with floodplains and wetlands is providing food, habitat and breeding opportunities for native fish, waterbirds and vegetation.

This year, the Commonwealth Environmental Water Holder made the most of the Commonwealth's holdings by using a combination of water delivery, carryover and a small trade of allocations to maximise environmental outcomes—allowing environmental needs to be met despite very dry conditions.

Strategies to maximise outcomes within catchments and across the Basin included use of a parcel of water multiple times as it flowed through the river system. The largest Commonwealth environmental watering action ran from June 2015 to January 2016 with environmental water released from Hume Dam to provide benefits all the way through the system. Several environmental water holders, floodplain site managers and river operators delivered flows in coordination with consumptive water deliveries for best environmental effect. Outcomes included spawning of golden perch and critically endangered silver perch, growth of aquatic vegetation key to the

character of the Barmah and Millewa Forest Ramsar sites, small-scale bird breeding and detection of approximately 20 per cent of the entire population of endangered Australasian Bitterns residing and breeding in Barmah-Millewa Forest.

The Commonwealth Environmental Water Holder has partnered with local community groups including Renmark Irrigation Trust, Accolade wines (owners of the RAMSAR-listed Banrock Station) the Nature Foundation South Australia and the Trust for Nature, giving communities valuable input into shaping the regional planning and management of environmental water delivery over the long term.



Image: Magpie geese, black ducks, and other birdlife at the Cumberland Chimney Wetland near Georgetown.
Photo: Department of the Environment.

Great Barrier Reef

When we came to Government almost three years ago, one of the world's natural icons—the Great Barrier Reef—was on track to be listed as 'in danger' by the United Nations World Heritage Committee.

We have overseen new and unprecedented protections for the reef which resulted in the World Heritage Committee declaring that the reef would not be listed 'in danger' and they unanimously supported Australia's long-term vision and plan for protecting the reef.

Early 2016 saw the unfolding of a severe bleaching event, which is being closely monitored with reef-wide assessments and analyses. The most effective way to help the reef recover and withstand the effects of climate change is to ensure it remains healthy by improving its water quality. This means continuing the work we started since coming into government in 2013. We took four steps to return the reef to health:

- We ended plans for five massive dredge disposal projects in the Great Barrier Reef's water.
- We banned the 100-year practice of capital dredge disposal in the Great Barrier Reef Marine Park.
- We developed and put in place our Reef 2050 Long-Term Sustainability Plan.
- As part of an overall projected \$2 billion investment in the reef, the Australian Government has announced \$171 million of new funding for the reef on top of our existing \$140 million commitment to the Reef Trust. The Reef Trust is supporting projects including helping farmers improve run-off from reef catchments and other critical activities to protect the reef.

One of the many projects we are working on is a pilot to restore and repair priority wetlands. It will see \$2 million from private investors matched, dollar-for-dollar from the Australian Government's Reef Trust. The project is the first Reef Trust project supported by private investment and has been developed by Greening Australia, in partnership with Birdlife Australia, Conservation Volunteers Australia and Wetland Care Australia.

Whales

Australia remains committed to the protection of whales and dolphins. We are an active member of the International Whaling Commission and will continue to collaborate in international efforts to end to all forms of commercial and so-called 'scientific' whaling, uphold the global moratorium on commercial whaling, and transform the commission into a modern, multilateral conservation organisation. In 2014, the International Court of Justice found Japan's Southern Ocean whaling programme, JARPA II, to be unlawful and not for the purpose of scientific research. The science is clear: all information necessary for the management and conservation of whales can be obtained through non-lethal methods. Australia will continue to subject Japan's whaling programmes to robust scientific scrutiny.

The Australian Antarctic Division in Hobart includes the Australian Marine Mammal Centre which conducts novel non-lethal research in the Southern Ocean and leads Australia's engagement in the Scientific Committee of the International Whaling Commission. It hosts the secretariat of the commission's Southern Ocean Partnership which promotes international cooperation in non-lethal whale research in Antarctic waters. The mammal centre and the Australian Antarctic Data Centre co-manage the National Marine Mammal Data Portal for the collation of data on marine mammal sightings, strandings, bycatch, vessel strike and entanglements.

The Australian Government's \$2 million Whale and Dolphin Protection Plan includes:

- research into the habitat and health of dolphin species like the Australian Snubfin dolphin and the Indo-Pacific humpback dolphin
- a National Whale Trail of land based whale observation sites to promote community awareness and participation in whale watching
- a stranding action plan to help provide state governments respond to whale strandings and entanglements as well as research into what causes them and how to prevent them.

Marine

The Government has met its 2013 election commitment in relation to Commonwealth Marine Reserves. A major independent review has delivered recommendations for new zoning and management arrangements for the reserves to strike the right balance between environmental, social and economic interests. The recommendations from the review will pave the way for new management plans,

which will be in place within the next 12 months. The Government has committed \$56 million over four years to move the management of the reserves to a more localised approach, so that while we protect our unique aquatic assets we also support the local fishing industry, provide more opportunities for engagement with recreational fishers, community groups and dive operators and support local growth in marine-based tourism.



Image: Slashers Reef, Great Barrier Reef. Photo: GBRMPA.

Heritage

The Australian Government has worked to instil a new sense of pride in Australia's heritage. We have worked with local communities to share the stories about the places that have helped shape our nation and to ensure that our heritage is protected for future generations.



National Heritage

In December 2015 we released the *Australian Heritage Strategy*, a 10-year plan to protect and promote our precious and unique heritage. Implementation of the strategy has started and work has begun on one of the key commitments: investigating the potential for a UK-style National Lottery, an innovative approach to raising additional funds for our significant local and national heritage sites

National Heritage listings have recognised the national significance of four new sites: the City of Broken Hill in New South Wales; Koonalda Caves in South Australia; the Murtoa No.1 Grain Store in Victoria; and the Burke, Wills, King and Yandruwandha National Heritage Place in South Australia and Queensland. New National Heritage assessments have been announced for the Queen Victoria Markets and Abbotsford Convent in Victoria, the Former Female Factory Parramatta in New South Wales, Willow Court Barracks Precinct and Frescati House in Tasmania and the Murray Island Group in the Torres Strait. The Two Ships Project concluded its fieldwork on two of Australia's most inaccessible National Heritage listed places, HMAS *Sydney* II (1941) and HSK *Kormoran* (1941).

The Australian Government also provided support to 18 National Heritage sites (up to \$1 million each) from the Protecting National Historic Sites programme. Projects include the reconstruction of the Commemorative Area at the Australian War Memorial, and conservation and structural stabilisation works at Woolmers Estate in Tasmania.



Thirty community and Indigenous groups, National Trusts, and 'Friends-of' groups received up to \$10,000 each from the Community Heritage and Icons Grants programme, including for the design and construction of "Welcome to Country" signs for the Muthi Muthi Traditional Owners of the Willandra Lakes Region and the recording of the Dreaming Stories of the Willandra Lakes, so that visitors to the region can hear the Muthi Muthi Elders speak about the country. The programme has also supported the Waverley Council to create a storytelling project which aims to digitally document, preserve, and celebrate the rich history of post-war Jewish Immigrants and their families in the Bondi area in Sydney.

Industry partners in Environment Protection and Biodiversity Act conservation agreements invested more than \$5 million in an Indigenous ranger programme and other measures to conserve the National Heritage values of the Dampier Archipelago (including the Burrup Peninsula) in Western Australia.

World Heritage

Australia's World Heritage Tentative List has been reviewed by all Australian governments and a process to progressively update it with new places of potential Outstanding Universal Value agreed.

The World Heritage listed Macquarie Island has been declared pest free (ship rat, rabbit and house mouse) following a seven-year pest eradication project overseen by a steering committee from the Australian and Tasmanian governments and the New Zealand Department of Conservation.

The identification, protection, conservation, presentation, transmission and rehabilitation of the World Heritage values of the 2013 extension to the Tasmanian Wilderness World Heritage Area has been supported with \$10 million. This includes work to gain a more detailed understanding of the Aboriginal cultural heritage values of the area with \$575,000 for research and consultation with the Tasmanian Aboriginal community.

Vital conservation and restoration work has been completed at the World Heritage listed Port Arthur Historic Site with Australian Government funding of \$1.5 million. Work continues with state and territory governments to identify places like Sydney's Royal National Park for possible inclusion on Australia's World Heritage 'Tentative' List.

A conservation agreement was signed by the Australian Government, New South Wales Government and Parramatta City Council to protect the World and National Heritage values of Old Government House and Domain in relation to its significant views and settings.

The Australian Government continued to provide support to the Papua New Guinea Government with implementation of the Kokoda Initiative to sustainably develop and protect the Kokoda Track.

Antarctica

The Government is delivering a new era in Antarctic endeavour. The Australian Antarctic Strategy and accompanying 20 Year Action Plan released in April 2016 will guide Antarctic engagement and ensure the region remains valued, protected and understood.



In the single biggest Antarctic investment by an Australian government, funding has been provided for a world-class icebreaker for resupply and multi-disciplinary science, due to arrive in Australia in mid-2020. Funding is also provided for a deep-field overland science traverse capability and mobile research station infrastructure—essential support for critical Antarctic science.

The Australian Antarctic research effort focuses on the most pressing of our science needs, particularly the role of Antarctica in the global climate system, the need to understand and conserve Antarctica's unique life forms and to protect the Antarctic environment and support sound environmental stewardship in the region, with a particular focus on fisheries.

With the scientific and operational capabilities delivered through the Australian Antarctic Strategy and the Action Plan, Australia is well placed to address the major scientific challenges of the coming decades.

Among these are the challenges of playing a leading role in sourcing the globe's oldest ice, exploring the unknown parts of the ocean below the sea ice and ice shelves and learning how warming and acidifying ocean will affect Australia. We must also ensure we can support the conservation and ecosystem based management of Antarctic krill and fish.

Information from ice cores helps us reconstruct past climates, allows us to test climate models and plan for a future in a changing climate. Chemical constituents in ice cores such as carbon dioxide, sulphur, iron and ash tell scientists about past temperature, sea ice extent, volcanic events and human activity among other things.



The most ambitious priority for ice core scientists is to recover a core that extends well over one million years—a time in Earth’s history when ice age cycles shifted their pacing from 41,000 years length to the current 100,000 years length. We don’t know what caused this shift. An ice core covering this time period would allow us to extract a direct record of carbon dioxide and see what role, if any, it might have played.

Through the International Partnership in Ice Core Sciences, Australia has contributed to an array of 2000 year old ice cores across Antarctica. Some of these have helped identify linkages between rainfall variability in Australia and weather events in Antarctica revealing times when major droughts and floods impacted Australia before weather records existed.

Australia is also leading international science on Antarctic krill. As krill is the staple diet of many of Antarctica’s inhabitants—including seals, whales and penguins—sustainable krill fisheries are critical for conserving the Southern Ocean’s ecosystems.

The Australian Antarctic Division’s krill aquarium has already accomplished many world firsts in krill research, allowing scientists to study both wild and captive-bred krill. Our krill research is providing critical information to enable sustainable harvesting of krill while ensuring larger predators can continue to rely on krill as their main food source. The Government will explore options for an expanded krill aquarium to establish Australia as a world leader in krill research.

Science

The Australian Government is ensuring that science is integrated into decision-making as a key principle of good environmental policy.

To ensure that robust science and reliable environmental data underpins environmental policies and programmes the Government funds collaborative, practical and applied research that informs on-ground action by connecting scientists and communities. We have established the \$145 million National Environmental Science Programme to target investment where it matters most—supporting research into threatened species, climate change, marine and coastal environments, northern Australia and clean air and the urban environment through six multi-partner research hubs.

Managing, sharing and publishing environmental data is central to our policy work. This includes seeking new knowledge and filling knowledge gaps at national and regional levels, providing regular State of the Environment reports, and working with scientists across the portfolio in the Bureau of Meteorology, the Great Barrier Reef Marine Park Authority and the Australian Antarctic Division on cutting edge international research and data.



