Australian Government

Department of the Environment

Submission to the Senate Inquiry into Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters

Standing Committee on Foreign Affairs, Defence and Trade

The Department of the Environment welcomes the opportunity to provide this submission to the Standing Committee on Foreign Affairs, Defence and Trade. The role of the Department of the Environment is to advise on and implement environment policy to support the Government in achieving a healthy environment, strong economy and thriving community now and for the future.

Responsibility for Antarctic and Southern Ocean matters falls within the remit of the Australian Antarctic Division (AAD) of the Department. Other areas of the Department with activities and responsibilities in the Southern Ocean include Parks Australia and the Wildlife, Heritage and Marine Division.

The Department, through the AAD, is responsible for operating the Australian Antarctic Programme, which includes the operation of three Antarctic and one subantarctic research station. The Department is the lead agency with responsibility for the *Convention for the Conservation of Antarctic Marine Living Resources*, the *International Convention for the Regulation of Whaling*, and the *Protocol on Environmental Protection to the Antarctic Treaty*. On matters related to the *Antarctic Treaty*, the Department works closely with the Department of Foreign Affairs and Trade, who have lead agency responsibility.

The Department's submission is structured around the terms of reference for the Inquiry; namely:

> Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters, including:
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> (a) Australia's management and monitoring of the Southern Ocean in relation to illegal, unreported and unregulated (IUU) fishing;
>
> (b) cooperation with international partners on management and research under international treaties and agreements;
>
> (c) appropriate resourcing in the Southern Ocean and Antarctic territory for research and governance; and
>
> (d) any other related matters.

For the purposes of this submission, the Department has included all matters related to whale conservation under term of reference (d).

Australia in the Southern Ocean and Antarctic waters

Australia has a proud Antarctic tradition and has long been one of the world's leading Antarctic nations. For over a century since the Australasian Antarctic Expedition (1912-14) led by Douglas Mawson, Antarctica has occupied a unique place in Australia's national identity. Australia asserts sovereignty over some 42 per cent of the Antarctic continent - the Australian Antarctic Territory (AAT) - and associated rights over the ocean and seabed.

The Australian Government has engaged Dr Tony Press to prepare the 20 Year Australian Antarctic Strategic Plan, which is due to be provided to the Minister for the Environment in July 2014. The 20 Year Australian Antarctic Strategic Plan will focus on ensuring that Australia is engaged, active and visible as a leading Antarctic nation, including by further expanding Tasmania's position as a centre and gateway for Antarctic research and services.

The 20 Year Australian Antarctic Strategic Plan will critically assess Australia's national interests in Antarctica and the Southern Ocean. It will cover access and logistical support, science, policy and leadership in the international management of Antarctica, and will provide a blueprint for Australia's future engagement in the region.

Australia's Antarctic national interests and associated principles for engagement in Antarctica are currently set out in the form of six points, which have been endorsed in a similar form by successive governments over many years. As currently articulated, these are:

- Preserve our sovereignty over the Australian Antarctic Territory (AAT), including our sovereign rights over the adjacent offshore areas;
- Take advantage of the special opportunities Antarctica offers for scientific research;
- Protect the Antarctic environment, having regard to its special qualities and effects on our region;
- Maintain Antarctica's freedom from strategic or political confrontation;
- Be informed about and able to influence developments in a region geographically proximate to Australia; and
- Derive any reasonable economic benefits from living and non-living resources of the Antarctic (excluding deriving such benefits from mining and oil drilling).

While these principles may be reviewed as a part of the 20 Year Antarctic Strategic Plan, this general articulation of Australia's national Antarctic interests appropriately reflects Australia's key interests in the Antarctic, and provides a backdrop for considering Australia's future Antarctic and Southern Ocean engagement.

Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters, including: (a) Australia's management and monitoring of the Southern Ocean in relation to illegal, unreported and unregulated fishing

Overview

Australia has over a number of years maintained a Southern Ocean patrol programme which has acted as a strong deterrent to illegal fishers inside Australia's exclusive economic zone (EEZ) around Heard Island and McDonald Islands (HIMI). However, the Department remains concerned about the level of IUU fishing in the Southern Ocean and the potential for future illegal fishing incursions at HIMI. A multi-faceted approach to preventing, deterring and eliminating IUU fishing is necessary and is the approach adopted to protect Australia's interests at HIMI.

The Heard Island and McDonald Islands fishery

Australia's interests in Southern Ocean fisheries, and flowing from that concerns related to IUU fishing, are most sharply focussed on the HIMI Fishery.

The Heard Island and McDonald Islands, while a recognised Australian sovereign external territory, are situated inside the area of competence of the *Convention on the Conservation of Antarctic Marine Living Resources* (CAMLR Convention). As such the HIMI Fishery is managed as a Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) fishery in accordance with Australia's obligations under the CAMLR Convention. In addition, Australia applies a range of supplementary domestic management measures. The Australian Fisheries Management Authority (AFMA) manages fishing activities in accordance with the *Fisheries Management Act 1991*. Australia also manages a domestic fishery for Patagonian toothfish at Macquarie Island, which is outside of the CCAMLR Area.

The HIMI Fishery is a highly significant fishery for Australia, with fishing commencing in the fishery in 1996. This fishery targets Patagonian toothfish and Mackerel icefish. The current total allowable catch limit for Patagonian toothfish is 2730 tonnes and for Mackerel icefish is 1267 tonnes. The toothfish fisheries at HIMI and Macquarie Island, as well as the HIMI Mackerel icefish fishery have achieved Marine Stewardship Council (MSC) Certification. This means they have been assessed against the MSC environmental standard for sustainable fishing and passed. Further, the HIMI and Macquarie Island toothfish fisheries are considered best choice by the Monterey Bay Aquarium Seafood Watch. These certifications, as well as high value of toothfish, means that the products get a premium price in the market.

The Department's key roles with regards to the HIMI fishery are: coordinating and representing the interests of the fishery at CCAMLR (in consultation with other key agencies and external stakeholders), and delivering the science enabling a sustainable fishery, including undertaking the biennial stock assessments for the two HIMI fisheries target species.

Evolution and current scale of the IUU fishing problem

IUU fishing continues to undermine the objective of the CAMLR Convention. It started around South Georgia Island in the south Atlantic sector, and as stocks were depleted the IUU fishing vessels

moved east. From around 1996 the IUU fleet targeted toothfish stocks in the southern Indian Ocean including at HIMI.

The period from 1996–97 to 2002–2003 saw very high estimates of illegal fishing inside the HIMI EEZ, some almost double the legal catch limit. From 2002–03 there was a marked decrease in illegal fishing inside the HIMI EEZ due to a number of high profile apprehensions by Australia and the introduction of a Southern Ocean patrol programme. There have been no incursions inside the HIMI EEZ detected since 2005. However IUU fishing remains a persistent problem in the high seas parts of the CCAMLR Area, particularly in the Indian Ocean sector immediately south of HIMI.

CCAMLR maintains an IUU vessel list. There are currently 18 vessels on the list. Surveillance and enforcement information for the 2011–12 and 2012–13 fishing seasons indicates that at least eight of these vessels (seven fishing vessels and one mother ship) were active in the CCAMLR Area. Recent events suggest that the mother ship, MV *Tiantai*, sunk in the Southern Ocean on 30 March 2014. The risk of IUU vessels sinking, particularly in Australia's Search and Rescue Zone, is discussed at (d).

In addition to the direct effects of depleting targeted stocks, IUU fishing operations do not employ the by-catch mitigation measures required of licensed vessels. The gear-type most widely used by the IUU fleet is bottom set gillnets which are indiscriminate in the way they fish. The nature and scale of by-catch of fish and birds and impact on benthos are virtually unknown. Nets also continue to impact the environment if abandoned or lost.

Australian action to combat IUU fishing

- ***Southern Ocean Fisheries Patrols and Surveillance (including cooperation with France)***

Australia undertakes patrol activities in the CCAMLR Area under the auspices of the CCAMLR System of Inspection, and in cooperation with France, whose Kerguelen Islands EEZ abuts the HIMI EEZ. In 2003 Australia and France signed a treaty that creates a framework to enhance cooperative surveillance of both countries' subantarctic EEZs and encourage scientific research on marine living resources in the area of cooperation (the Agreement)[1]. A further agreement aimed specifically at tackling illegal fishing inside the French and Australian subantarctic EEZs was signed in 2007[2] (the 2007 Agreement).

Since 2004 Australia and France have been cooperating on surveillance and enforcement activities and have undertaken joint patrols on the Kerguelen Plateau. The policy intention pursuant to these agreements was for year-round patrol coverage of the Kerguelen Plateau. The 2007 Agreement provides for joint surveillance and enforcement missions as well as for mutual assistance when a hot pursuit is engaged. A key feature of the 2007 Agreement is that it allows ship riding. That is, French

[1] Treaty between the Government of Australia and the Government of the French Republic on cooperation in the maritime areas adjacent to the French Southern and Antarctic Territories (TAAF), Heard Island and the McDonald Islands done at Canberra on 24 November 2003

[2] Agreement on Cooperative Enforcement of Fisheries Laws between the Government of Australia and the Government of the French Republic in the Maritime Areas adjacent to the French Southern and Antarctic Territories, Heard Island and the McDonald Islands done at Paris on 8 January 2007

and Australian Controllers[3] can exercise cooperative enforcement activities aboard an authorized vessel of the other Party with the consent of the other Party.

In addition, awareness of IUU fishing in the Southern Ocean is maintained through surveillance activities managed by the Australian Customs and Border Protection Service.

- ***Other measures***

In addition to on-water surveillance and enforcement activities, Australia continues to pursue a number of other activities to prevent, deter and eliminate IUU fishing in the CCAMLR Area, including:

- Seeking to close ports and markets to toothfish products. The cooperation of port States to effectively cut off market access and resupply opportunities for CCAMLR IUU listed vessels has proven effective in disrupting IUU operations and continues to make it increasingly difficult and expensive for these operators to get IUU-caught product into the market. Australia has, and continues to work closely with several such port and market States including Indonesia, Malaysia, Singapore and Hong Kong.
- In-country education and capacity building (both unilaterally and under the auspices of CCAMLR), including in the Southern African and South-East Asian regions.
- Diplomatic representations to States identified as the flag State of IUU listed vessels and whose nationals are identified as working onboard IUU vessels.

Environmental non-government organisations such as the World Wildlife Fund and the Antarctic and Southern Ocean Coalition, and industry body Coalition of Legal Toothfish Operators have also played a significant role in seeking to prevent, deter and eliminate IUU fishing in the Southern Ocean. These organisations have raised awareness by 'naming and shaming' known IUU operators, provided useful information on IUU operators to national authorities (and to CCAMLR), and have sought to hamper IUU activities in port or at sea. The Australian Government collaborates closely and effectively with both non-government organisations and industry representatives in this regard.

CCAMLR's role in combating IUU fishing

Since 1997 CCAMLR has adopted a comprehensive suite of measures to seek to prevent, deter, and eliminate IUU fishing. These include:

- Licensing and inspection;
- Port inspections;
- Automated satellite-linked vessel monitoring systems;
- Catch documentation Scheme;
- Scheme to promote compliance by vessels;

[3] A controller is an officer of one Party who is authorized to exercise cooperative enforcement activities on the authorized vessel of the other Party.

- Scheme to promote compliance by nationals;
- Notification system for transhipment; and
- Compliance evaluation procedure.

Australia has played a key role in the development of all of these measures which, together with the unilateral and bilateral activities of Australia and other CCAMLR Members, contributes to continued efforts to keep IUU fishing levels low.

Notwithstanding the relatively low levels of IUU fishing detected in recent years, ongoing efforts through a range of surveillance and cooperative arrangements in addition to the above CCAMLR measures are required in order to prevent a return to the earlier high levels of IUU fishing at a time of escalating resource pressure.

Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters, including: (b) cooperation with international partners on management and research under international treaties and agreements

Overview

The Department currently supports Australia's engagement in international Antarctic affairs through international multilateral agreements, and bilateral engagement with other nations on Antarctic matters. The Department plays a key role in supporting Australia's participation in the forums of the Antarctic Treaty system (ATS) as the framework for Antarctic governance. Given the complexity of Antarctic relations, international influence (including in the ATS) is multifaceted and derives not only from policy activism, but also from credible science and operations capabilities.

Cooperation on Management

The Antarctic Treaty system comprises the 1959 *Antarctic Treaty*, the 1971 *Convention for the Conservation of Antarctic Seals*, the 1980 *Convention on the Conservation of Antarctic Marine Living Resources*, the 1991 *Protocol on Environmental Protection to the Antarctic Treaty*, as well as measures adopted under these instruments. The system accommodates the unique legal and political status of the Antarctica (including sovereign claims, as under Article IV of the Treaty territorial claims are neither refuted or accepted), as well as the particular environmental and geographic characteristics of the region. For over 50 years the ATS has provided a highly effective governance framework that is consistent with Australia's interests in the Antarctic. Australia is one of the principal architects and supporters of the ATS. Supporting the functional and effective working of the ATS is an enduring national priority for Australia.

The Antarctic Treaty and Environmental Protocol

There are presently 50 signatories to the Antarctic Treaty, of which 29 have Consultative Party status (those nations with a demonstrated substantial scientific interest in Antarctica, which are entitled to participate in decision making). The Parties meet annually at the Antarctic Treaty Consultative Meeting (ATCM), which is the key international forum in which decisions on the governance of Antarctica and its comprehensive environmental protection are taken.

There are 35 Parties to the Environmental Protocol to the Antarctic Treaty. The Protocol designates Antarctica as a natural reserve, devoted to peace and science; establishes environmental principles for the conduct of all activities; prohibits mining indefinitely; subjects all activities to prior assessment of their environmental impacts; requires the development of contingency plans to respond to environmental emergencies; and establishes the Committee for Environmental Protection (CEP).

Australia actively engages in the ATCM to achieve effective management of the Antarctic, and cooperates with our international partners to that end. As an example, Australia is an active member of the Larsemann Hills Management Group that is responsible for the management arrangements for the Larsemann Hills Antarctic Specially Managed Area in East Antarctica. Australia has also proposed and manages several Antarctic Specially Protected Areas, including with China, India and the Russian Federation.

Australia has been the key proponent in the development of a multi-year strategic work plan for the ATCM, populated over forward years to adopt a strategic approach to the work of the ATCM. One of the key initiatives of the plan, strongly supported by Australia, is to share strategic science priorities with the aim of increased international scientific collaboration on matters of importance to the conservation and other policy objectives of the Antarctic Treaty Parties.

The Convention on the Conservation of Antarctic Marine Living Resources

The *Convention on the Conservation of Antarctic Marine Living Resources* (CAMLR Convention) provides for the conservation, including rational use, of Antarctic marine living resources. Unlike regional fisheries management organisations that focus only on target species, the CAMLR Convention requires that consideration be given to all species in the ecosystem and to conserving ecological relationships. The CAMLR Convention establishes as the decision making body, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), which meets annually to adopt conservation measures for management and conservation.

The role of CCAMLR in fisheries management and preventing, deterring and eliminating IUU fishing is discussed at (a). Australia is a fishing country with a strong conservation agenda, and is focused on maintaining an appropriate balance with regard to CCAMLR's objectives. Australia is currently co-sponsoring with France and the European Union a proposal to establish a Representative System of Marine Protected Areas in East Antarctica. This proposal is significant not only in terms of Australia's marine environment conservation objectives, but also as a major step in marine area protection within the context of the ATS.

Council of Managers of National Antarctic Programs

Australia is an active member of the Council of Managers of National Antarctic Programs (COMNAP), an international association which brings together national Antarctic programmes to develop and promote best practice in managing the support of scientific research in Antarctica. It does this by serving as a forum to develop environmentally responsible and effective practices; facilitating and promoting international partnerships; and providing opportunities and systems for information exchange.

As part of the annual COMNAP meeting Australia convenes the East Antarctic Breakout Group. The Group has the objective of facilitating the sharing of information on the logistics capacity of each programme with the view of identifying closer cooperative logistics arrangements. In recent years the Group has also facilitated discussion on improved environmental outcomes. Other countries involved in the Group include China, France, India, Korea, Japan, the Russian Federation, Sweden, Germany, Belgium and Italy.

In 2013 Australia convened the COMNAP Southern Ocean Observing System Workshop, an international initiative with the aim of coordinating and expanding the efforts of all nations and programmes that gather data from the Southern Ocean. As a result of the workshop a think tank has been established to facilitate the exchange of information between countries.

Scientific Committee on Antarctic Research

The Scientific Committee on Antarctic Research (SCAR) is an interdisciplinary body of the International Council for Science. Australia actively engages in SCAR, including participating in workshops and projects such as the 'Horizon scan' (the consideration of future Antarctic science over the next twenty-five years). Continued engagement by Australia in SCAR is important as SCAR's scientific research adds value to national efforts by enabling national researchers to collaborate on large-scale scientific programmes to accomplish objectives not easily achievable by any single country.

Bilateral Engagement

Effective international engagement is integral to the achievement of the Australian Government's Antarctic national interests. Considerable potential exists for the AAD as the manager of the Australian Antarctic Programme to engage internationally – including through collaboration, communications initiatives, provision of expert advice, and multilateral forum interactions – in its three key fields of Antarctic science, policy and operations. The AAD has established over 15 Memoranda of Understanding (MOU) with other Governments and national Antarctic programmes to further our policy, science and operational interests.

Cooperation on Research

The AAD manages, coordinates and implements Australia's research in Antarctica and the Southern Ocean. The Australian Antarctic Science Strategic Plan 2011–12 to 2020–21 is a whole-of-government developed strategy that ensures Australia's research investment in Antarctica and the Southern Ocean supports the Government's priority science needs. The strategic science outputs from the Australia's Antarctic Programme prioritise the importance of collaborative, multi-national research and ensures the delivery of excellent and priority science as well as providing the 'currency' with which to engage in strategically important and scientifically beneficial collaborations.

In 2012–13 the Australian Antarctic Science Programme undertook 61 science projects. These projects included researchers from 36 Australian institutions collaborating with a further 71 international institutions from 23 countries. Overall, 80 students (53 PhD candidates) were associated with the projects. A total of 136 scientists (including 51 scientists on a marine science voyage, SIPEX II) were active in Antarctica and the Southern Ocean.

During the 2012 calendar year, 179 publications were produced within the Australian Antarctic science programme. Of these, 80 were published in peer-reviewed international literature and 17 contributed to supporting Australia's position in key policy fora such as the CEP, CCAMLR, the Agreement on the Conservation of Albatrosses and Petrels and the International Whaling Commission.

In recent years marine science led by the Australian Antarctic Programme has focused on sea ice research. In the 2012–13 season a major and highly collaborative marine science voyage to East Antarctica using the *Aurora Australis* occurred —Sea Ice Physics and Ecosystems Experiment II (SIPEX II). This research voyage brought together 51 scientists from nine countries—Australia, the United States, Germany, France, New Zealand, Switzerland, Japan, Belgium and Canada. Scientists measured the physical and biological properties of sea ice on small to regional scales using classical methods and state-of-the-art technology including ice coring surveys, remotely-operated and autonomous underwater vehicles, drifting buoys and instrumented helicopters.

That voyage was followed up in the 2013–14 season with six AAD scientists participating in a German-led multi-disciplinary voyage onboard the German icebreaker *Polarstern*. This voyage brought together a team of 47 scientists and support engineers from eight countries to continue research on sea-ice and Antarctic krill in the Southern Ocean. Both voyages demonstrated the value of bringing large international teams of researchers together to undertake complex projects that address key global issues.

Under the Agreement between France and Australia on cooperation in the Heard Island and McDonald Islands and the Kerguelen Islands region (see (a)), French and Australian scientists have been working together to develop a joint understanding of the region's marine ecosystems and to advance the scientific understanding of the population dynamics of toothfish across the Kerguelen Plateau. This scientific research, which is currently supported by a Fisheries Research and Development Corporation funding, will assist in understanding the impacts of fishing on the population status of toothfish on the Kerguelen Plateau.

Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters, including: (c) appropriate resourcing in the Southern Ocean and Antarctic territory for research and governance

Overview

A number of strategic considerations are relevant to the rationale behind Australia's resourcing of research and governance in the Southern Ocean and Antarctic waters. One of these is our long-standing sovereign interest in the Australian Antarctic Territory (AAT). Another is Australia's sovereign and management interests in our subantarctic islands, including at Heard Island and McDonald Islands (HIMI) and Macquarie Island. These interests are most publicly underpinned by the physical presence of the Australian Antarctic Programme in the Antarctic and subantarctic.

The Antarctic Treaty system (ATS), discussed at (b), provides the international framework under which Australia conducts its Antarctic activities, guaranteeing strategic stability in the south and preserving Australia's position on its Antarctic sovereignty. It is therefore a primary conduit for pursuing our national interests. As an original signatory, active participant, and leader in the

development and maintenance of the ATS, it is in Australia's interests to act in accordance with the intent and the obligations of the ATS agreements, and to build the strength and integrity of the system as the governance arrangement for the region. Australia's prominent role in science, operations, environmental protection, and international cooperation in Antarctica and the Southern Ocean over the past century has yielded substantial influence within the ATS, and a range of concomitant benefits to Australia.

The Australian Antarctic Territory

The AAT, which covers some 42 percent of the Antarctic continent, is a sovereign part of Australia and an element of our national history and identity. This external territory covers 5.9 million square kilometres and predates the Antarctic Treaty. Australia's sovereignty over the AAT is not universally recognised, but Article IV of the Antarctic Treaty formally protects and preserves Australia's position on sovereignty over the AAT. Article IV provides that the actions of Treaty Parties may not form the basis for asserting, supporting or denying a claim to territorial sovereignty in the Antarctic, nor can any new claims be made. Under Article IV of the Treaty, territorial claims are neither refuted nor accepted. Australia considers that at present the ATS is the best way to accommodate differing views on Antarctic sovereignty and protect Australia's interests in the AAT.

The *Australian Antarctic Territory Act 1954* establishes the legal regime for the external territory. Many Commonwealth Acts extend to the territory, and Ordinances have been made, including the *Criminal Procedure Ordinance 1993 (AAT)* which establishes procedures for law enforcement in the Territory. While Australian law applies and is enforced in the AAT, the established practice is for each State party to the Antarctic Treaty to enforce its national laws only against its own nationals. This approach is central to the cooperative system that underpins the management of Antarctica.

The Territory of Heard Island and McDonald Islands, and Macquarie Island

The Territory of Heard Island and McDonald Islands (HIMI) is an external territory of Australia. Administration and management of the external territory rests with the Department. The Territory is governed in accordance with the *Heard Island and McDonald Islands Act 1953*, which describes the legal regime. Several Ordinances have been made for the territory, including the *Environment Protection and Management Ordinance 1987 (HIMI)* (the EPMO) which regulates access to and activities within the Territory. The HIMI Territory was inscribed on the World Heritage List in 1997 for its natural values.

The Heard Island and McDonald Islands Marine Reserve was established in 2002 under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) as an IUCN category 1a strict nature reserve. The Reserve includes the Heard Island and McDonald Islands Territory as well as a large proportion of the EEZ. In March 2014, following a scientific assessment, the area of the reserve was expanded to add an additional 6,200 square kilometres of water, giving the Reserve a total area of 71,200 square kilometres. This makes it the largest category 1a reserve in Australia. Commercial fishing is not permitted within the Reserve, and access to and activities within the Reserve are strictly managed through the EPBC Act, the EPBC Regulations and the EPMO. The previous management plan for the Reserve lapsed on 24 August 2012. A new draft management plan for the Reserve will be released for public comment shortly.

Australia has a vast area of extended continental shelf in the Southern Ocean, including the extended continental shelf off the HIMI Territory, confirmed by the United Nations Commission on the Limits of the Continental Shelf in June 2008, and proclaimed under the *Sea and Submerged Lands Act 1973* in May 2012. The extended continental shelf off HIMI is likely to be important for toothfish habitat and, as noted in (a), historically there has been large scale IUU fishing in this area and IUU fishers continue to operate in the area south of HIMI. It is likely that fishing practices employed by IUU fishers are having an impact on benthic species on the Continental Shelf and possibly long term impacts on Australia's interests including on benthic habitats. It is in Australia's interests to better exercise control over the extended continental shelf.

Macquarie Island, located 1500 kilometres south-south east of Hobart, is part of the State of Tasmania. It was inscribed on the World Heritage List in 1997 for its outstanding geological and natural significance. Macquarie Island is managed by the Tasmania Parks and Wildlife Service, however a permanent research station is owned by the Commonwealth and operated by the AAD.

The Macquarie Island Commonwealth Marine Reserve (previously the Macquarie Island Marine Park), under the EPBC Act, was first established in 1999. The Reserve comprises a total area of 162 000 km^2 and includes a portion of the Macquarie Island World Heritage Area. The Reserve comprises a sanctuary zone (IUCN category 1a) and two habitat protection zones (IUCN category IV). The Reserve is managed under the South-east Commonwealth Marine Reserves Network Management Plan 2013-23 (the Plan), which came into effect on 1 July 2013.

The Plan specifies management strategies and associated actions and outcomes to guide implementation towards meeting the objectives of the plan. These are to firstly, provide for protection and conservation of biodiversity and other natural and cultural values and, secondly, to provide for ecologically sustainable use of the natural resources where consistent with the first objective. The reserves making up the South-East Network, including Macquarie Island Commonwealth Marine Reserve, are outside the scope of the current Australian Government review of marine reserves.

Environmental Regulation

In line with Australia's obligations under the ATS, activities in the Australian Antarctic Territory undertaken by any person, and all activities elsewhere in the Southern Ocean undertaken by Australians or organised in Australia, are required to seek prior authorisation, through an environmental impact assessment process under the *Antarctic Treaty (Environment Protection) Act 1980*, administered by the Department.[4] Specific activities also require permits under the same Act, or permits under the *Antarctic Marine Living Resources Conservation Act 1981*. Some activities are also subject to regulation under the EPBC Act.

The Australian Antarctic Programme

The Australian Antarctic Programme, run by the AAD, delivers Australia's presence and manages Australia's activities in the AAT. Australia operates three permanent stations on the coast of mainland Antarctica (Casey, Davis and Mawson Stations), and one on Tasmania's Macquarie Island.

[4] An activity authorised by another Party to the Environmental Protocol, including an activity in the AAT, does not need to be authorised under the *Antarctic Treaty (Environment Protection) Act 1980*.

The stations are supported by shipping and aircraft operations between Australia and the Antarctic continent and subantarctic, including the *Aurora Australis* and the Hobart-Antarctica Airlink.

The *Aurora Australis* was originally designed to operate as part of a two ship model, with the majority of the resupply activity being undertaken by separately chartered ice-strengthened cargo ships with large cargo capacity. The intended research functions of the *Aurora Australis* meant that the vessel's cargo capacity was deliberately small in order to provide facilities for science. Due to a shift to a model including aviation seven years ago, the AAD has not had the financial scope to charter secondary shipping capacity. Since that time the AAD has been utilising the *Aurora Australis* to conduct all of its resupply and scientific tasks.

On 14 May 2014 the Government approved for release a Request for Tender for the procurement of a new icebreaker to replace the aging *Aurora Australis*. It is anticipated a contract will be signed with the successful tenderer during late 2015. A new icebreaker will ensure that Australia's activities in Antarctica are supported by a sustainable and modern capability following the retirement of the *Aurora Australis* post 2017.

A number of features of the resourcing of Australia's Antarctic Programme to note include that:

- The operational nature of the Australian Antarctic Programme entails a significant proportion of fixed costs which are necessary to sustain operations in Antarctica (some 70 per cent of the AAD's current expenditure falls into this category).
    - These fixed costs rise over time and are exposed to volatilities in prices of key inputs such as fuel.
- The AAD's core ongoing budget is contained within the Departmental Expenses allocation for the Department and therefore is subject to efficiency dividends and broader cuts.
- Major operational and scientific activities – particularly those involving collaboration with other nations – require long lead times and budget certainty.

The Portfolio Budget Statement for the Environment Portfolio identifies that Outcome 3 (Antarctica) has a departmental appropriation to undertake Antarctic related operations and programmes of $107.8 million for 2014-15. This figure includes estimated revenue from independent sources. A capital budget allocation of $14.9 million is in addition to that figure.

Australian Antarctic Science

The Australian Antarctic Science Strategic Plan 2011–12 to 2020–21 aligns Australian Antarctic science with two primary, public-good policy objectives, being:

- Sound environmental stewardship of the AAT, the Southern Ocean and HIMI; and
- Understanding the key role of Antarctica and the Southern Ocean in Australian and global climate, and the consequences of climate driven changes in these systems.

The Australian Science Strategic Plan is divided into four themes. The first three address the priority science needs articulated by government policy and resource management agencies. The fourth

theme, frontier science, provides opportunity for high quality science projects that address Australia's national science priorities, without the requirement for current policy relevance.

Of particular relevance to science in the Southern Ocean and Antarctic waters is Theme 2 - Southern Ocean Ecosystems: Environmental Change and Conservation, which has a goal to conduct the scientific research necessary for understanding the impact of global change on Southern Ocean ecosystems, the effective conservation of Antarctic and Southern Ocean wildlife and the sustainable, ecosystem-based management of Southern Ocean fisheries.

Key recent large scale collaborative marine science activities were described at (b). In general, marine science conducted by the AAD has reduced over the past 10 years due to competing pressures for ship days. As identified above, the change in tasking of the *Aurora Australis* from a research vessel to being predominantly responsible for resupply has resulted in a reduced marine science capability. Between 1990 and 2007 an average of 66 days of marine science was supported by the programme. For the years 2008–09 to the 2013–14 season the average is 28 days. The Australian Government has committed to the future of marine science through the announcement of the new Antarctic icebreaker. Not only will the new vessel deliver critical fuel and cargo to Australia's stations, it will also facilitate science in the Southern Ocean and Antarctica. The ability to access the entire ice sheet in the AAT, remote AAT coastal locations, the sea ice zone, and the deep ocean will dictate the scope and quality of Australia's Antarctic science Programme. For Australia to assume a genuine leadership role in addressing the big science challenges of the next few decades, consideration would need to be given to ways to enhance our access to some of the last frontiers of Antarctic and Southern Ocean science, including the deep sea (>2000m), the vast realms of ocean beneath sea ice and ice sheets and the deepest and oldest ice on the Antarctic continent.

In the May 2014 budget the Government also committed $24 million over three years from 2014-15 for a new Antarctic Gateway Partnership between the AAD, the University of Tasmania and CSIRO to provide for collaborative larger scale scientific research. The Antarctic Gateway Partnership will help support Tasmania's position as the centre for Antarctic research and services to the region into the future. The money will be administered through the Australian Research Council. The Government has also committed a further $25 million over 5 years to the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC), which will support scientific research in the Antarctic and Southern Ocean and strengthen Tasmania's role as a centre for Antarctic research.

The Department notes that the new Marine National Facility vessel the Research Vessel (RV) Investigator, operated by the CSIRO, is due to enter service in 2014–15. This vessel will conduct science throughout Australia's marine jurisdiction, including in the Southern Ocean. If the RV *Investigator* is able to dedicate effort on other, ice-free regions of the Southern Ocean, this will provide greater opportunities for the marine science efforts of the *Aurora Australis* to focus on the scientifically important sea ice and near-coastal zones.

Appropriate resourcing for governance and research in Antarctic waters and the Southern Ocean into the future will be considered by Dr Tony Press in the 20 Year Antarctic Strategic Plan, which is due to be delivered to the Government in July 2014. Dr Press has been asked to report on matters including the strategic importance of Australia's Antarctic interests, expanding the role of Tasmania as a gateway for Antarctic expeditions and scientific research and ensuring robust and reliable access to the AAT. Dr Press has consulted with relevant experts and the Australian Antarctic community

through an extensive public consultation phase. The terms of reference for Dr Press's review are attached to this submission.

Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters, including: (d) any other related matters

Increasing activity of other nations in Antarctica

The scope and resourcing for Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters should be considered in light of the increasing activity of other nations in Antarctica. The scale and pace of Antarctic activity undertaken by many nations is increasing, particularly in East Antarctica. The expansion of international interest and engagement in Antarctica by other nations bolsters the integrity of the ATS and contributes to collaborative international science programmes. While potentially diluting the relative influence of Australia in East Antarctica, these developments also bring enhanced opportunities for increased collaboration.

Unique legal status of Antarctica

Consistent with maintaining the stability of the ATS, the Department, along with other departments and agencies, has sought to ensure that developments in other international agreements and discussions do not perturb the ATS. The ATS is tailored to the circumstances of the Antarctic environment, as well as the unique legal and political circumstances of the Antarctic region. For these reasons the Antarctic Treaty Parties, including Australia, take the view that issues relating to management of the Antarctic should be dealt with primarily in the forums of the ATS. Many agreements have some application to Antarctic areas, or involve issues that may impact on Antarctic matters (for example International Maritime Organisation agreements, International Civil Aviation Organisation, United Nations Framework Convention on Climate Change, Convention on Biological Diversity, United Nations General Assembly, and United Nations Convention on the Law of the Sea). It is important to note that Australia's direct Antarctic interests, as well as interests in the stability of the ATS are best served by continued broad-based recognition of the primacy of the ATS as the peak governance regime for Antarctic matters.

Southern Ocean Search and Rescue

The Department recognises that the Australian Maritime Safety Authority (AMSA) is responsible for Australia's responsibilities for Search and Rescue (SAR) in the Southern Ocean. Noting this, the predominant SAR assets available in the Southern Ocean are operated by the Australian Antarctic Programme. The *Aurora Australis* has been tasked on multiple occasions, including most recently in the rescue of passengers from the *Akademik Shokalskiy* in Commonwealth Bay in December 2013, and in response to the 2010 French helicopter crash near Dumont-d'Urville station. The Australian Antarctic programme's A319 is also suited and available to AMSA for tasking as necessary to conduct overflight aerial observation and other SAR-related activities.

The issue of vessel safety in the Southern Ocean is of ongoing concern to Antarctic Treaty Parties and CCAMLR members. In February 2011, the tourist yacht *Berserk* sank in the Ross Sea with the loss of three lives, highlighting the need for improved preparedness of operators of Antarctic activities. The recent suspected sinking of an IUU listed vessel, MV *Tiantai,* has again highlighted the

dangers of operating in the Southern Ocean and Antarctic waters and the risk of operating vessels not adequately equipped to handle the extreme climatic and environmental conditions.

Whale conservation and research in the Southern Ocean

The Department has responsibilities relating to whale conservation and research in the Southern Ocean. These relate to Australia's responsibilities as a Party to the International Convention for the Regulation of Whaling (ICRW), including our engagement in the International Whaling Commission, promotion of whale conservation policies and initiatives, support for the global moratorium on whaling, and advocacy of non-lethal whale research demonstrated through our involvement in scientific activities in the Southern Ocean.

International Whale and Marine Mammal Conservation Initiative

The Department is responsible for implementing Australia's seven-year $38 million International Whale and Marine Mammal Conservation Initiative (2008–09 to 2014–15). The Initiative was established in 2008 to support Australia's efforts to bring an end to all forms of commercial whaling and improve the conservation status of whales and marine mammals in our waters (including off the Australian Antarctic Territory), and around the world with a special focus on the Southern Ocean.

The International Whale and Marine Mammal Conservation Initiative has enabled Australia to remain at the forefront of international efforts to improve non-lethal research on whales in the Southern Ocean, and to build our whale conservation leadership in the International Whaling Commission. The outputs from this initiative have demonstrably led to positive conservation outcomes for whales, including creating a greater emphasis for the International Whaling Commission's agenda towards conservation, and the judgment in the International Court of Justice whaling case.

Southern Ocean Research Partnership

Through the Initiative, Australia has set in place a solid whale research and policy foundation. The Department has continued to lead the Southern Ocean Research Partnership and to promote non-lethal whale research in the Southern Ocean. The Australian-initiated and led Southern Ocean Research Partnership is now a multinational, non-lethal research consortium involving ten partner countries. It is the largest global, collaborative whale research initiative. In 2009 Australia contributed $500,000 to the International Whaling Commission to build support and engagement in the Southern Ocean Research Partnership.

The Partnership's flagship research initiative is the Department-led Antarctic Blue Whale Project that is building our understanding of the circumpolar abundance of Antarctic blue whales in the Southern Ocean ecosystem. The first Antarctic Blue Whale Project research voyage was undertaken in January to March 2013. In a world first, Australia joined forces with scientists from Chile, New Zealand, the United Kingdom and the United States to use acoustic technology to successfully find, track and study the Antarctic blue whale, the largest creature on Earth.

The whale research conducted by the Partnership is included within the Government's agreed Southern Ocean research priorities and is a major part of Australia's Antarctic Science Strategic Plan 2011–12 to 2020–21.

International Whaling Commission

Australia has worked closely with members of the International Whaling Commission to shift the emphasis of the Commission towards being a 'conservation orientated' body. Important Commission conservation initiatives for Australia include implementing conservation management plans to assist in the recovery of critically endangered whale populations and supporting the Commission's role in promoting globally responsible and sustainable whale watching.

In the lead up to the June 2013 meeting of the Commission's Scientific Committee, a conference of scientists from 16 countries was held to showcase non-lethal research on whales in the Southern Ocean. Australia's non-lethal research received widespread recognition, which helped cement Australia's leadership role on international cetacean conservation supported by high quality scientific advice. Outcomes of the conference were reported to the IWC Scientific Committee meeting also held in Korea in June 2013.

Australia's constructive approach to the International Whaling Commission has begun to embed conservation management principles and recognition of the benefits of non-lethal research into the Commission's approach to its work.

Southern Ocean Whale Sanctuary

The Southern Ocean Whale Sanctuary was established under the Schedule to the ICRW in 1994 to protect the summer feeding grounds of great whales in the Southern Hemisphere. Commercial whaling is prohibited within the Sanctuary, irrespective of the conservation status of whales in the area.

The Schedule requires the Southern Ocean Whale Sanctuary to be reviewed every ten years. The first review of the Sanctuary, conducted in 2004, provided a suite of recommendations to improve future reviews, including better articulating the Sanctuary's purpose through refined objectives, developing appropriate performance measures and implementing a monitoring strategy that measures progress towards achieving Sanctuary objectives.

The second decadal review of the Sanctuary will be considered by the International Whaling Commission at its 65th meeting in Slovenia in September 2014. The Commission will need to establish overall goals, objectives and review criteria for the Sanctuary. At its meeting in May 2014, the Commission's Scientific Committee established an intersessional group to collate data that may assist the review.

It is clear that the research outputs from the Southern Ocean Research Partnership will represent the key body of science that has been conducted within the Sanctuary and will be important in demonstrating the long term role of the Sanctuary in whale conservation.

International Court of Justice Case – Whaling in the Southern Ocean

On 31 May 2010, the Australian Government initiated legal action against Japan in the International Court of Justice, challenging Japan's whaling programme in the Southern Ocean. Oral hearings in the whaling case were held from 26 June to 16 July 2013.

The Australian Government welcomed the 31 March 2014 decision of the International Court of Justice that found that Japan's whaling programme in the Southern Ocean (JARPA II) is not for purposes of scientific research under Article VIII of the ICRW, and that Japan had not acted in conformity with various obligations under the ICRW. The Court's judgment which found in favour of Australia, was the successful culmination of the Department's provision of highest quality Southern Ocean focused policy, technical and scientific advice to the Attorney-General's Department (who led the case) over a period of more than six years.

Japan's whaling in the Southern Ocean

The Department has responsibilities, in partnership with other Australian Government agencies, relating to Japan's whaling activities in the Southern Ocean during austral summers. Prior to the 31 March 2014 decision by the International Court of Justice, Japan self-issued special permits under Article VIII of the ICRW to conduct so-called 'scientific' research in the Southern Ocean, through means which included 'lethal take'. The Department's responsibilities in respect of Southern Ocean whaling include providing advice to governments and responding to, and monitoring, interactions between the Japanese whaling fleet and protesters.

In delivering our responsibilities, Australia has focused on the importance of safety at sea and emphasised that all parties should uphold their obligations under international maritime law. Prior to the announcement of the results of the International Court case, departmental scientists presented analyses that demonstrated major scientific failings in the Japanese 'scientific' whaling at a workshop held by the International Whaling Commission to review results of the research. The identification of these failings were key to the Court's judgment.

On 18 April 2014, the Japanese Minister of Agriculture, Forestry and Fisheries made an announcement about the future of the Japanese whaling programs including in the Southern Ocean. The statement confirmed that scientific whaling would not be undertaken in the Southern Ocean in the 2014–15 austral summer and noted their intention to prepare for a new lethal scientific program in the Southern Ocean in 2015–16, with new plans for research to be submitted to the International Whaling Commission's Scientific Committee in 2015.

In May 2014, Japan submitted a proposal to the International Whaling Commission's Scientific Committee for a cetacean sighting survey in the Antarctic in the 2014–15 austral summer season that does not include lethal research. Japan's proposed non-lethal cetacean sighting survey for 2014–15 is similar to Japan's previous series of sightings surveys in which Japan provided the vessels and the Scientific Committee designed the science. Japanese and foreign crews undertook the surveys. The Scientific Committee had a substantial role in the design and oversight of these surveys.

Australia will continue to work through the International Whaling Commission, and its subsidiary Scientific Committee, to promote whale conservation in the Southern Ocean and the benefits of non-lethal research on whales. The continuation of Australia's leadership in cetacean conservation science will be key to maintaining the position – by demonstration – that all relevant questions of whale conservation and management can be best answered through collaborative non-lethal research.

Australia-Korea Non-lethal Cetacean Research Collaboration

In July 2012, the Republic of Korea (Korea) announced at the International Whaling Commission meeting in Panama that it was considering undertaking a 'scientific' whaling programme. Since that time, the Department has worked closely with Korean counterparts to demonstrate the benefits of non-lethal cetacean research on whales and other cetaceans. Korea subsequently reversed their scientific whaling decision in January 2013. The Department and Korean counterparts have continued to work together on non-lethal cetacean research including two bilateral workshops – one in Korea and one in Australia. The Department is now in the final stages of confirming an ongoing non-lethal cetacean research work programme based on three major themes (operational interactions, ecological interactions and socio-economic opportunities). The cooperation will enable research on cetaceans in Korean waters drawing on Australia's expertise and non-lethal research techniques in the Southern Ocean.

20 Year Strategic Plan terms of reference

Prepare a 20 Year Australian Antarctic Strategic Plan by conducting a comprehensive review of Australia's Antarctic engagement, including: Australia's Antarctic strategic interests; capacity to undertake and support priority science; presence in the Antarctic; and international engagement.

The Plan will address and provide advice on the following key areas in the short, medium and long-term. It will also include recommended strategies and key measures of success.

The strategic importance of Australia's Antarctic interests

- Assess Australia's strategic national Antarctic interests.
- Consider whole-of-Government coordination of Australia's Antarctic interests and Government institutional arrangements for their delivery.
- The funding required for implementing the 20 Year Strategic Plan for Australia's Antarctic engagement.

Expanding the role of Tasmania as the gateway for Antarctic expeditions and scientific research

- Recommend options to build on and further stimulate economic, social, research and policy benefits deriving from Tasmania's status as an Antarctic gateway.
- Building efficient, effective and internationally integrated partnerships including among Hobart-based Antarctic research institutions.

Ensuring robust and reliable access to the Australian Antarctic Territory

- Assess the Australian Antarctic Division's current operational capabilities and the future (short, medium and long-term) options to meet Australia's requirements to access the Australian Antarctic Territory and other parts of Antarctica, principally via:
    - options to modernise and streamline Australia's inter-continental aviation capability
    - options to derive maximum benefit from Australia's new icebreaking capability
    - options for enhanced operational collaborations with other nations.

Extending Australia's reach across the Australian Antarctic Territory

- Assess the practical and strategic considerations underpinning Australia's physical presence in Antarctica, including Australia's sovereign interests.
- Provide recommendations on options for Australia's future presence in Antarctica, including through:
    - Research facilities
    - Intracontinental transport, including
        - aviation

    - traverse capabilities.

- Provide recommendations on Australia's interests and presence in the subantarctic.

Committing to undertaking nationally and globally significant science

- Scope the future high priority research for Australia in Antarctica and the Southern Ocean, and its delivery through the Australian Antarctic Science Strategic Plan.
- Consider Australia's role in driving and participating in international collaborations on science of global significance.

Committing to exercising influence in the region through the Antarctic Treaty system

- Recommending future priorities for Australia's engagement in Antarctic affairs, including the Antarctic Treaty system and related international forums.
- Consider options for building Australia's international influence in Antarctic affairs, including through increased policy engagement in the Antarctic Treaty system, and relationships with key partners.