Australian Government

Australian Institute of Marine Science

Australian Institute of Marine Science

Annual Report

2005-2006

AIMS: Australia's tropical marine research agency.

The research reported herein is based on early analyses of complex datasets and should not be considered definitive in all cases. Institutions or individuals interested in all consequences or applications of AIMS' research are invited to contact the CEO at the Townsville address given below.

For additional copies of this report, please phone the Institute on 07 4753 4444, write to us at our Townsville address or email bookshop@aims.gov.au

This report, along with a range of other information about the Institute, is available on-line at www.aims.gov.au

Cover photo: While these staghorn corals may look spectacular to the untrained eye … this image spells concern for marine scientists. Across Australia's reefs, delicate corals are under threat from coastal run-off, pollutants from the air and sea, community changes due to over-fishing and the impacts of climate change. Stressed corals release their colourful algal symbionts, called zooxanthellae, causing the 'bleaching' seen in these corals. AIMS is investigating what makes some corals more resilient than others, an important insight for the effective management of imperilled reefs worldwide. Photo: R. Berkelmans.

Townsville, Queensland
PMB No 3, Townsville MC Qld 4810
Telephone (07) 4753 4444
Facsimile (07) 4772 5852

Darwin, Northern Territory
PO Box 40197 Casuarina NT 0811
Telephone (08) 8920 9240
Facsimile (08) 8920 9222

Perth, Western Australia
Botany Biology Building
The University of Western Australia
35 Stirling Highway
Crawley WA 6009
Telephone (08) 6488 4580
Facsimile (08) 6488 4585

ABN 789 61616 230

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Australian Government

Australian Institute of Marine Science

TOWNSVILLE | DARWIN | PERTH

25th September 2006

The Hon Julie Bishop MP
Minister for Education, Science and Training
Parliament House
Canberra ACT 2600

Dear Minister

On behalf of the Council of the Australian Institute of Marine Science, we have pleasure in presenting the Institute's 34th Annual Report for the year ended 30 June 2006. The report is forwarded in accordance with Section 9 of the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

This report provides information so that you, the Parliament and users of the Institute's research output can make an informed judgment about AIMS' performance during the 2005-2006 financial year.

The report has been prepared in accordance with the *Commonwealth Authorities and Companies (Report of Operations) Orders* and the *Commonwealth Authorities and Companies (Financial Statements 2005-2006) Orders*. The Council endorsed the content of the AIMS Annual Report by a resolution at its meeting of 25th September 2006.

Yours sincerely

Dr Ian Gould
Chairman
Australian Institute of Marine Science

Dr Ian Poiner
Chief Executive Officer
Australian Institute of Marine Science

Townsville address: PMB No 3
Townsville MC, Qld 4810
Tel: (07) 4753 4444

Darwin address: PO Box 40197
Casuarina, NT 0811
Tel: (08) 8920 9240

Perth address: PO Box 83
Fremantle, WA 6959
Tel: (08) 9433 4440

ABOUT THIS REPORT

The Hon Julie Bishop, MP.

This annual report informs Parliament, industry, other stakeholders, educational and research institutions, the media and the Australian community about the performance of the Australian Institute of Marine Science during the period 01 July 2005 to 30 June 2006. It describes progress towards research goals that support the National Research Priorities and illustrates achievements that address the needs of our stakeholders. It provides an overview of operational performance against indicators such as new knowledge and collaborative R&D, research services, specialised consulting, licensing, patenting and start-up companies.

The Australian Institute of Marine Science is a Commonwealth statutory authority established by the *Australian Institute of Marine Science Act 1972*. AIMS' role is to carry out research and development in relation to marine science and technology and to encourage and facilitate the application and use of the results of these activities. The Institute operates according to requirements set out in the *Commonwealth Authorities and Companies Act 1997* (CAC Act).

During the reporting period the Hon Julie Bishop MP replaced the Hon Dr Brendan Nelson MP as Minister for Education, Science and Training - the Minister with responsibility for AIMS.

Photo: AIMS Long-term Monitoring Team

ABOUT AIMS


Photo: S. Clarke

The Australian Institute of Marine Science (AIMS) was established by the Australian Government under the *Australian Institute of Marine Science Act 1972* in recognition of the importance of marine assets, especially the Great Barrier Reef, to Australia. Today AIMS is recognised worldwide for the quality of its research into marine environments and their resources.

AIMS' mission is to conduct innovative research that advances understanding of our oceans and coastal ecosystems, facilitates good stewardship of marine resources, develops sustainable wealth creation opportunities and contributes to the discovery and development of new marine-based bioproducts for industry and human health care.

To do this, AIMS surveys and documents marine life: from the coast to the edge of the continental shelf; monitors changes and identifies trends in the marine environment; develops aquaculture techniques for the production of food, materials and fine chemicals; and searches the seafloor for novel compounds that can be used to develop pharmaceuticals, health care products, crop protection agents and applications for environmental remediation.

AIMS has an active programme for patenting and commercialising technologies developed within the Institute, including those developed in conjunction with academic or commercial partners.

OUR PEOPLE

AIMS is home to a dynamic team of 102 science staff working across seven research teams plus 63 support staff who provide specialised skills in the areas of data management, information technology, engineering, field operations, information services, science communication and corporate services. Many of our scientists are world authorities in their field and have achieved international acclaim for their research.

OUR RESEARCH

The Institute's expertise in tropical marine ecosystems combined with a multidisciplinary capability makes possible the full spectrum of scientific investigation, from the seafloor to the lab bench. National and international research partnerships and collaborations enhance AIMS' capacity to improve our understanding of complex marine ecosystems including: coral reef ecology; water quality; biodiversity assessment; coastal oceanography and modelling; coastal ecosystems and sustainable development; climate change and impacts; long-term monitoring and datasets; tropical aquaculture; systematics; marine microbiology; marine natural products chemistry; marine physiology; evolutionary biology; and functional genomics.

OUR LOCATION

The Institute's expertise is engaged throughout Australia's ocean territory and in tropical waters worldwide. AIMS headquarters is ideally located on a 207 hectare coastal site 50 km from Townsville, in a scientific zone surrounded by National Park and Marine Reserve. The location was selected because of its proximity to the geographical centre of the Great Barrier Reef and access to clean seawater. This strategic position provides a fast transition from the sea to the lab, a key advantage in marine science. Two smaller offices, in Perth, Western Australia and Darwin, Northern Territory, provide direct links for research partners and clients in these regions.

OUR FACILITIES

AIMS' Townsville headquarters features modern research laboratories, a state-of-the-art biomolecular analysis facility, a bioresource library, an aquaculture centre, seawater aquaria and controlled environment rooms, and engineering workshops for the development of instrumentation required for research activities.

A research fleet comprising two ships, the RV *Lady Basten* and the RV *Cape Ferguson*, and several smaller boats, provides both access to all Australian marine environments and the capacity for state-of-the-art oceanographic studies. During 2005-06, the ships supported 48 research expeditions averaging 260 days at sea.

HIGHLIGHTS

- Fish surveys demonstrate benefit of new reef zoning plan
- Seabed biodiversity project reaches final act
- Riches run deep at Ningaloo Marine Park
- Surveys for lobsters in the middle of the coral sea
- Coral gives new insight into changing ocean acidity
- Foreign fishing depletes Australian shark stocks
- Land use history recovered from coral cores
- Cutting edge technology for coral reef monitoring
- Interactive CD enhances understanding of water quality issues in regional communities
- What makes Keppel corals more resilient?

Photo: E. Matson

FISH SURVEYS DEMONSTRATE BENEFIT OF NEW REEF ZONING PLAN

For the last 15 years, researchers from the AIMS Long-term Monitoring Programme (LTMP) have surveyed 100 reefs in the Great Barrier Reef World Heritage Area (GBRWHA) to monitor the impacts of disturbances such as cyclones, bleaching events, crown-of-thorns starfish, and coral disease on reefs and to track the recovery of these ecosystems. The data gathered from these surveys is used by resource managers as the basis for policy formulation aimed at ensuring the sustainable use and protection of the Great Barrier Reef.

When the Great Barrier Reef Zoning Plan was introduced on 1 July 2004, it significantly increased the amount of habitat protected from fishing and provided a unique opportunity to determine how quickly reef fish stocks respond to reduced fishing pressure. The 'no-take' green zones established in the zoning plan are designed to create protected areas where fish can mature without pressure from fishing. As the oldest and largest fish produce far more offspring than smaller individuals, the adults living in green zones are expected to replenish populations on nearby reefs that remain open to fishing.

The AIMS Long-term Monitoring Team (LTMT) have formed a partnership with researchers from James Cook University to assess changes in the biodiversity arising from the new zoning plan. The James Cook University team is surveying fish and corals on nearshore reefs. AIMS is making complementary surveys on mid- and outer- shelf reefs.

In the last 12 months, AIMS surveyed fish populations on 26 reefs closed to fishing by the new zoning plan and 25 matched reefs that remained open to fishing. The selected reefs represent five geographic regions adjacent to coastal communities between Cairns and Gladstone. Although five reefs in the Townsville region will not be surveyed until September 2006, preliminary results from the offshore reefs have shown that coral trout, an important fishery species, is now about 50% more abundant in the new 'no-take' green zones.

This finding adds to other research in Australia and elsewhere that suggests marine protected areas can deliver direct benefits to a regional fish stock, assisting managers to maintain fishing pressure at levels that are ecologically sustainable. In developing countries, where the human pressures are much greater, marine protected areas appear to be the most cost-effective form of management to address the global trend towards over-harvesting of food fish stocks.

This collaborative project was supported by the Great Barrier Reef Marine Park Authority (GBRMPA), the Australian Research Council (ARC), James Cook University, and the Marine and Tropical Sciences Research Facility (MTSRF), which replaces the very successful Co-operative Research Centres (CRCs) for coral reefs and tropical rainforests that operated in North Queensland from 1993 to 2006.

The AIMS Long-term Monitoring Team spends an average of 100 days at sea, visiting reefs from Cape York to the Capricorn Bunkers to monitor yearly changes on the Great Barrier Reef.

SEABED BIODIVERSITY PROJECT REACHES FINAL ACT

Just six months after the final voyage, scientists have successfully processed all of the specimens collected during one of the largest biodiversity studies in the world. This monumental effort represents a milestone in the history of Australian marine science and highlights the scale of what can be achieved through multi-agency partnerships.

The Great Barrier Reef Seabed Biodiversity Project has been a $9m collaborative project developed to map non-reef habitats and seabed life throughout the Great Barrier Reef Marine Park in depths between 10 and 150 m. When the work is complete, more than 50 scientists and technicians from four research agencies will have contributed skills in biology, ecology, geology, physics and mathematics to the final outcome.

Between September 2003 and December 2005, the AIMS flagship RV *Lady Basten* completed six voyages of discovery to collect samples at 1,342 locations representing more than 200,000 km^2 of inter-reefal sea floor. A small team of scientists spent a total of 120 days at sea working 24 hours a day and travelling 17,736 nautical miles (32,847 km) to construct a picture of life on the seabed using video sampling. A remote controlled video camera, purpose built for the project by CSIRO, was towed over the seabed to record images of benthic communities and Baited Remote Underwater Video Stations (BRUVS) developed by AIMS were deployed to count fishes.

In some areas, a small sled was pulled along the seafloor to collect samples of seabed plants and animals too small or well camouflaged to be identified on video. The collections revealed many species not previously recorded in Australian waters as well as some new to science.

Teams of specialists working in laboratories in Townsville, Brisbane, Canberra and Hobart completed the final task of processing 15,000 plant and animal samples, 2,000 sediment samples, 2,200 hours of video and 140 gigabytes of echo-sounder data.

The information collected during this large-scale project will be used to create detailed maps of seafloor communities, databases and management tools to help marine resource managers recognise and conserve important habitats and biodiversity hotspots in the Great Barrier Reef Marine Park. The maps of plant and animal life will also be used to determine whether the current level of trawling in the world heritage area is ecologically sustainable.

More than 1500 plant and animal samples were sorted and processed in the Great Barrier Reef Seabed Biodiversity Project which concluded in 2005. A number of new species were amongst the discoveries.

RICHES RUN DEEP AT NINGALOO MARINE PARK

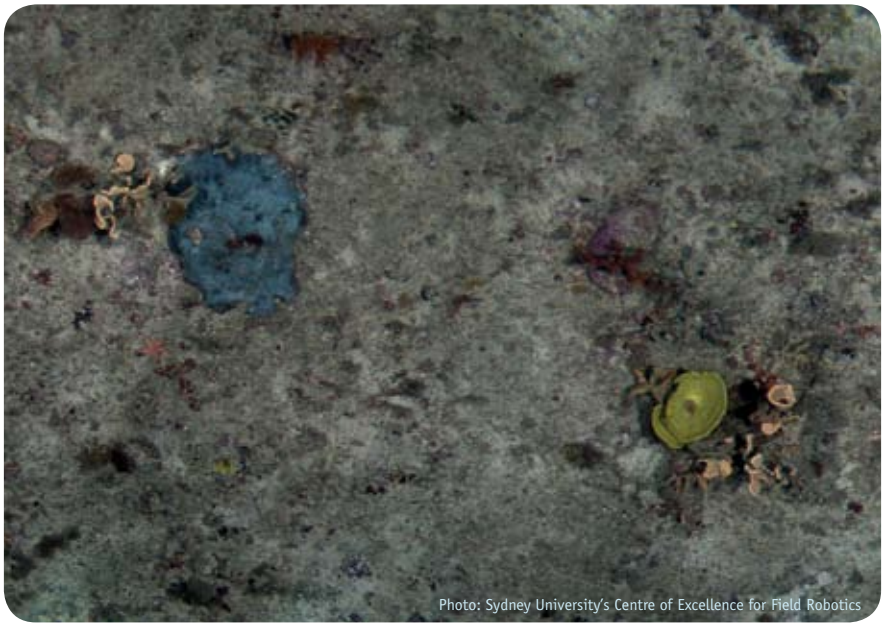
A pioneering survey has unveiled rich and exotic marine life in the deep waters of Western Australia's Ningaloo Marine Park. The first of three annual expeditions planned for the study revealed diverse sponge gardens as deep as 100 m. Large specimens weighing up to 60 kilograms and several novel sponge species were amongst the exciting discoveries.

AIMS led this collaborative project, which was co-funded by the Western Australian Government through the Ningaloo Research Fund and is now incorporated into the Western Australian Marine Science Institution (WAMSI) (see p 51). Other partners included the University of Western Australia, Curtin University and the Western Australian Museum.

A key aim of the research is to provide new knowledge about marine life on and near the seabed in the extensive deep water areas of the marine park that are inaccessible to divers (>30 m). This information will enable marine managers to protect important deep water habitats thereby preserving ecosystem biodiversity.

More than 100 km of the northern sector of the marine park was examined in the survey, using a mix of advanced underwater video equipment, acoustic mapping tools and more routinely used sled and grab sampling devices. In addition, collaborators from the Centre of Excellence for Field Robotics, at Sydney University, tested one of Australia's most advanced Autonomous Underwater Vehicles (AUVs) for deep water terrain mapping. The AUV used 3D stereo imaging to create a picture of Ningaloo's seabed communities.

Hundreds of species were collected from representative areas of the marine park. These collections are being processed at the Western Australia Museum and will provide the foundation for a seabed biodiversity database of Ningaloo's deeper waters. Further expeditions to explore the remaining areas of the marine park are expected to add to the ongoing species inventory of Ningaloo and identify biodiversity hotspots.



Highly specialised sponges (some weighing up to 60 kg) were discovered at Ningaloo Reef growing in deep waters nearly devoid of light – an unexpected place to find these photosynthetic organisms.

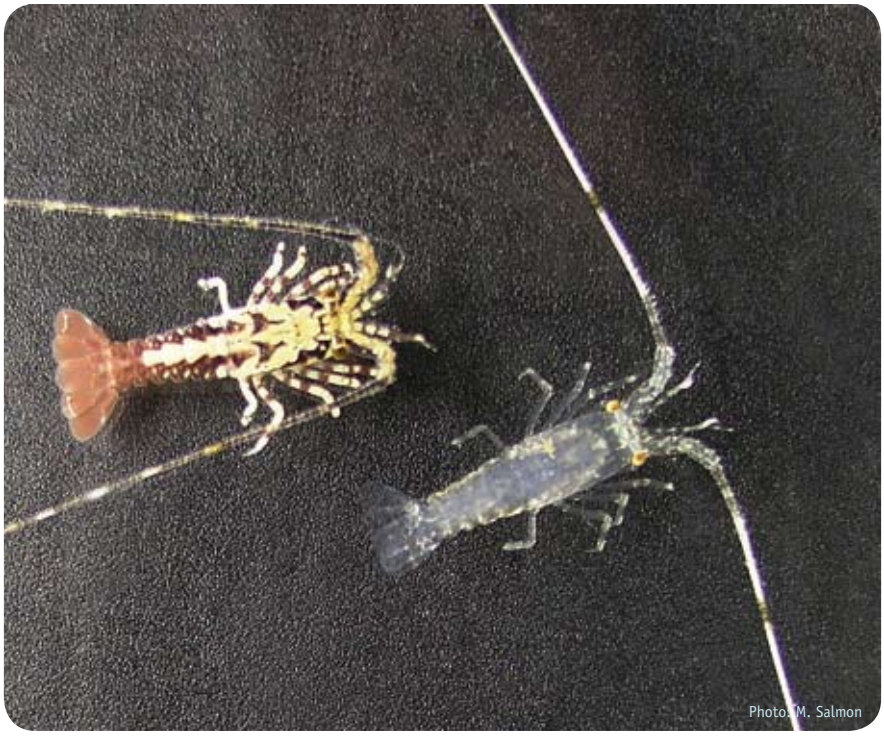
SURVEYS FOR LOBSTERS IN THE CORAL SEA

AIMS researchers have made a breakthrough in the aquaculture of tropical rock lobster, *Panulirus ornatus*. Until now aquaculturists have been unable to rear microscopic larvae (through all 12 moult stages) into adults. The ability to complete an organism's life-cycle in a hatchery environment is essential to its success as a commercially viable aquaculture species.

A six day voyage to study wild lobster populations formed part of a continuing study on larval development of the lobsters. Over 1,000 phyllosoma (lobster larvae) were collected during the cruise, representing the larval stages of at least five popular food species of tropical rock lobster, as well as several species of slipper and coral lobsters, which are of interest to the marine ornamental aquarium trade.

The purpose of the voyage was to gather details on the lobsters' rates of larval development in the ocean, to understand the natural microbial community associated with them and to identify the natural diet of the phyllosoma (see p 34). While all of the information acquired from wild populations has enhanced success in hatcheries, AIMS researchers found that the tiny microbes associated with young larvae play a crucial role in their survival.

Understanding how these microbial communities contribute to lobster health was a key contribution by AIMS to a research consortium made up of the Australian Government Fisheries Research and Development Corporation (FRDC), the MG Kailis hatchery in Exmouth, Western Australia and the Queensland Department of Primary Industry & Fisheries (QDPI&F). The consortium has succeeded in completing the hatchery life-cycle for tropical rock lobster and is working together to develop technologies that will form the basis of what may become a new and very valuable marine food industry.



These juvenile rock lobster, which are approximately 1.5 cm long, represent an important phase in the life cycle of hatchery reared lobster.

CORAL GIVES NEW INSIGHT INTO CHANGING OCEAN ACIDITY

The rising level of greenhouse gases in the atmosphere, principally carbon dioxide, which is responsible for global warming, is also changing the acidity of oceanic waters.

Researchers from AIMS and the Australian National University have obtained the first historical insight into changes in ocean acidity and coral growth.

The scientists analysed a core sample from a 300-year-old massive coral on Flinders Reef in the western Coral Sea. Scientists analysed the coral's growth rings by measuring levels of boron isotopes, which provide a marker for ocean acidity.

Their results, published in the journal *Science,* showed that ocean acidity rose and fell approximately every 55 years coinciding with periodic fluctuations in global climate.
The relatively large variations in seawater pH (a measure of acidity) experienced at Flinders Reef, suggest that coral reefs may be resilient to the shorter term effects of ocean acidification.

However, in the coming decades many reefs are likely to experience unnaturally acidic conditions.

Improved understanding of the response of coral reefs to increased acidity and the long-term impacts of ocean acidification will be important in predicting the effects of climate change on coral reefs and other marine communities.

Massive corals found throughout Australia's tropical waters, act like living libraries with coral core samples providing information on weather patterns, terrestrial run-off and oceanic conditions of the past.

FOREIGN FISHING DEPLETES AUSTRALIAN SHARK STOCKS

Illegal fishing is one of the most severe problems currently affecting world fisheries and has dramatically increased in Australia's fishing zones particularly in northern Australia. The main target of illegal fishing in this region is shark, driven by exponentially increasing demand for shark fin.

Hundreds of fishermen, mostly of Indonesian origin, are arrested each year in northern Australian waters for illegal possession of shark fin. The fishery is becoming increasingly sophisticated with nets replacing longlines and electronic navigation systems becoming commonplace.

An AIMS research initiative, supported by the Department of the Environment and Heritage and the Department of Fisheries and Forestry, has shown a striking difference in the abundance and species richness of sharks on fished and unfished reefs in the productive oceanic shoals of northern Australia. Sharks were found to be anywhere from 17 to 4 times less abundant at fished reefs. Of particular significance was the fact that the sharks considered most valuable for the fin trade (Silvertip Whalers *Carcharhinus albimarginatus* and Scalloped Hammerheads *Sphyrna lewini*) have been virtually eliminated from the northern reefs accessed by illegal fishermen.

The next step is to collect information on the sharks that are illegally captured, by analysing the product from boats seized by the Australian Customs Service and the Royal Australian Navy. AIMS scientists are using fin measurements and genetic analyses to identify the sizes and types of sharks being targeted.

Research has also begun to analyse the catches of our own domestic shark fishery using a mark-recapture approach, funded by the ARC and Australian commercial shark fishermen. This work will look at catch rates to ensure that the domestic fishery does not exceed sustainable levels for shark populations.

Illegal fishing is devastating shark populations in Australian waters.

LAND USE HISTORY RECOVERED FROM CORAL CORES

Amongst the wealth of information that can be extracted from coral cores, including indications of climate change and overall reef health, scientists at AIMS have a new use for these 'biological databases'. In addition to revealing atmospheric and oceanic conditions, coral cores contain evidence of agricultural activities associated with European settlement.

To gain an insight into the past, AIMS researchers examined the geochemical records from coral core samples held in the AIMS collection.

The study, funded by James Cook University, AIMS and the Cooperative Research Centre for the Great Barrier Reef World Heritage Area (CRC Reef), supports an earlier finding that sediment exports to the Great Barrier Reef from the Burdekin River catchment increased 4-5 fold soon after the arrival of Europeans and more specifically, the presence of livestock.

Unique trace metals found in soil and released from the land by cattle driven erosion were transported to reefs through local waterways. The quantity of specific metals found in the coral cores fluctuates closely with cattle numbers from the region's grazing industry.

This research presents a biological record of the effect of humans and livestock on the water quality of the Great Barrier Reef and its catchment. Data from coral cores is helping scientists to understand the health of the reef over time and to predict future impacts of human activities.

Marine scientists have found evidence of agricultural activities associated with early European settlement in coral cores collected from the Great Barrier Reef.

CUTTING EDGE TECHNOLOGY FOR CORAL REEF MONITORING

With climate change predicted to heavily impact coral reefs, scientists around the world are keeping a close eye on corals. In March 2006 AIMS hosted a workshop for the Coral Reef Environmental Observatory Network (CREON) to facilitate the development and deployment of an environmental monitoring network for the Great Barrier Reef. CREON is a global collaboration of scientists and engineers designing and building sensor networks for observing biophysical conditions in the tropical marine environment.

Presenting at the workshop were world leaders in technology like Larry Smarr, director of the United States National Science Foundation's first supercomputer centre that ultimately gave rise to the Internet.

One-hundred sensors have been primed and tested at AIMS prior to deployment on the reef. In the first stage of the project, sensors will be installed across an area of 400 km^2 off Townsville, and will link into a global monitoring system. The sensors will transmit digital data from the reef back to AIMS.

The CREON network is also collaborating with international scientists to develop sensors in French Polynesia, Taiwan and the Florida Keys. The research group receives financial assistance from the Gordon and Betty Moore Foundation, National Science Foundation (United States) and the Queensland Parallel Supercomputing Foundation (QPSF).

A network of marine sensors will be deployed around the GBR, allowing scientists to obtain real-time measurements of oceanic conditions.

INTERACTIVE CD ENHANCES UNDERSTANDING OF WATER QUALITY ISSUES IN REGIONAL COMMUNITIES

AIMS coral reef scientists and oceanographers are helping regional communities to better understand how runoff, water quality and reefs are connected.

The Douglas Shire Water Quality Improvement Project (WQIP), funded by the Department of the Environment and Heritage Community Catchment Initiative, was established to assist the Douglas Shire and its residents in maintaining the health of regional marine habitats through adoption of land use practices that minimize runoff of sediments, nutrients and other pollutants onto the Great Barrier Reef.

In collaboration with an experienced local coral reef scientist and the University of Queensland's environmental toxicology group, AIMS has contributed to the project by producing a baseline description of the coral reefs and the water quality in the shire's coastal waters. Measurements such as coral cover and levels of nutrients and pesticides in the water, will be used to assess water quality and the overall health of local reefs over time.

The report from this activity, which is available to the local community in an interactive webpage-style CD, provides a summary of the current state of coastal water quality and the status of coral reefs in the Douglas Shire region. The CD also presents historical data which shows how water quality and reef coral cover has changed over time. Understanding the patterns of the past helps scientists distinguish human induced changes from natural variability to better understand current and future water quality issues. The CD will be distributed to regional libraries, schools, extension offices and community-based natural resource management groups. Using a home or school computer, users may browse the CD to see the results of reef surveys and water quality monitoring. The presentation emphasises the close links between regional rainfall, freshwater runoff and water quality in coastal waters bordering the shire. With a mouse-click, readers may select and view pictures and videos of the reefs as well as graphical data on changes in reef coral cover and crown-of-thorns starfish outbreaks.

This interactive CD aims to educate regional communities on the connectedness of terrestrial run-off, water quality and coral reefs.

WHAT MAKES KEPPEL CORALS MORE RESILIENT?

The warmest year in the Australian instrumental record was 2005, with high temperatures throughout the year leading to initial summer water temperatures 2 °C above average. Extensive cloud cover and heavy rain in January 2006 suppressed temperatures long enough to prevent coral bleaching on most of the Great Barrier Reef, except around the Keppel Islands where 63-100% of corals bleached.

AIMS scientists investigated the Keppel bleaching event which occurred up to a month earlier than the events seen in 1998 and 2002. During these earlier bleaching events, almost every coral in the Keppels bleached. Surprisingly, however, most also recovered three to six months later, revealing a remarkable resilience not seen at other locations on the Great Barrier Reef.

Research in the Keppel Islands is showing that corals in this area have an ability to quickly change their algal symbionts (called zooxanthellae). The coral's ability to adapt by altering their zooxanthellae allows them to endure greater temperature fluctuations as different types of algae are better suited to varying thermal conditions. Corals in this region also grow faster than their northern counterparts and have an ability to store more fats. This may be at least part of the reason why the Keppel corals were able to bounce back from a heat wave in 2002 that had adverse consequences for other regions.

AIMS researchers are pursuing other theories on why Keppel corals are more resilient. Coral physiologists believe the success of the corals may also be related to increased food availability in the region or to the coral's ability to access nutrients. With climate change warming the oceans, hardy corals such as those in the Keppels are falling under increasing scientific scrutiny.

Many of these Keppel Island corals which bleached in 2005 are now on the road to recovery thanks to a unique ability to adapt to changing temperatures.

PERFORMANCE AT A GLANCE


Photo: N. Murphy

AIMS continues to provide relevant, high quality research in support of the protection and use of Australia's marine biodiversity. This research directly supports Australian and State Government initiatives (e.g. *Australia's Oceans Policy*, the *National Research Priorities* (NRPs), the *Reef Water Quality Protection Plan*, the *Great Barrier Reef Representative Areas Programme*, the *Ningaloo Marine Park Management Plans*[1], the development of access and benefit-sharing policy, and the sustainable development of northern Australia's coastal resources), the needs and priorities of industry (e.g. reduced risk and identification of new marine resource opportunities for industry and tropical aquaculture), and community aspirations (e.g. identification and protection of Australia's marine biodiversity).

Through co-investment in strategic research and maintenance of strong and effective networks that extend across all states and territories, and overseas, AIMS continues to apply a collaborative approach which builds capacity, coordinates effort, and raises the profile of Australia's tropical marine research capability internationally. This approach enhances the nation's capacity to capture benefit (environmental, economic and social) from investment in marine science and technology.

The Institute measures its performance against indicators agreed in our Triennium Funding Agreement. A snapshot of our achievements during the year is included in the following table. Detail about the Institute's performance is included in the Performance Measurement section of this report.

[1]The Ningaloo Marine Park is managed by Australian and State Government agencies.

	2004-05	2005-06
Shift in resources (see p 24)	During the reporting period resources were shifted, further enhancing the Institute's contribution to the *National Research Priorities*. This included: increased effort in water quality research, re-focused effort in biomedical research and gene expression and re-focused effort in climate change and impact.	During this reporting period, AIMS shifted resources to enable co-investment with major marine research funding programmes in Western Australia and Queensland, meeting research needs associated with Ningaloo Reef and the Great Barrier Reef
Journal publications (see p 42)	87	63
Citation analysis (see p 44)	Ranked No. 2 Research Institution for coral reef ecology globally. Two of our staff in top 20 cited authors. AIMS authors on three of the four most cited papers	AIMS is the most cited research institution in the world in the field of Environment and Ecology and is now in the top 1% in this field, matching its ranking in the top 1% in the field of Animal and Plant Science according to the latest science impact report from the Institute for Scientific Information (ISI).
Number of postgraduate students (see p 57)	61 (not including AIMS staff)	59 (not including AIMS staff
Recognition (see p 45)	20 editorial boards	Various examples and 20 editorial boards.
Joint ventures and strategic alliances (see p 47)	As for 2003-04 plus CoML and RWQPP	As for 2004-05 plus ARC Centre of Excellence for Coral Reef Studies, MTSRF
Collaboration (see p 51)	81% journal publications	79% journal publications
External revenue (see p 55)	$5.689m	$8.228m
Adoption (see p 55)	Various examples	Various examples
Contracts successfully completed (see p 57)	37 (107 reports submitted)	43
Policy input (see p 57)	11 submissions plus various committees	4 submissions plus various committees
Adjunct teaching positions (see p 57)	16	16
Patents (see p 59)	No new patents. The Institute manages an Intellectual Property (IP) portfolio containing 63 patents from 10 families spanning a diverse range of technologies	No new patents. The Institute manages an Intellectual Property (IP) portfolio containing 60 patents from 7 families spanning a diverse range of technologies.
Commercial disclosures (see p 59)	14	58
Commercial arrangements (see p 60)	53	90
Start-up companies (see p 60)	No new start-ups. AIMS' three spin-off companies continued to operate.	No new start-ups. AIMS' three spin-off companies continued to operate.

REPORT FROM AIMS CHAIR, DR IAN GOULD


Photo: J. DeRooy

With more than seventy percent of our territory under water, Australia is largely a marine nation. Australia's marine territory plays a major role in national security and houses much of Australia's biodiversity. Under national and international legislation Australia has an obligation to conserve the marine environment.

From the Great Barrier Reef to the Ningaloo Reef system and the oceanic shoals of the Timor Sea, Australia's tropical marine waters hold important biological, cultural and economic resources. The region supports key marine industries such as offshore petroleum and gas, tourism, fisheries and aquaculture, generating $26.7 billion each year. While current marine industries generate substantial revenue, increased economic potential from emerging industries such as marine biotechnology, aquaculture and tourism is significant and likely to be realised with further research.

In addition to the need for research to support sustainable marine industries, environmental threats to Australia's oceans are compelling and require major scientific contributions supported by world class scientific research infrastructure, inter-agency collaboration and global engagement. AIMS is Australia's tropical marine research agency and one of the world's most productive

and innovative marine research agencies. Consistently ranking amongst the top 1% of specialist research institutions internationally, AIMS is known for its unique capacity to investigate topics ranging from broad-scale ecology to microbiology. Highly specialised facilities, world-renowned staff and well developed partnerships have secured the Institute's position as a global leader in tropical marine science.

ENSURING PRODUCTION OF QUALITY SCIENCE WITH HIGH IMPACT

In 2005-06, AIMS continued to demonstrate world class research and increased efforts in transferring knowledge to end-users to maximise science impact and uptake. During the past year, AIMS, working with government and other publicly funded research agencies, finalised its research quality assessment and reporting framework to ensure effectiveness, efficiency and quality in our research activities. Regular external expert reviews of science quality and impact help ensure our research goals are highly attuned to national needs. These reviews also ensure that infrastructure and intellectual capacity are used effectively and that commercial benefits of AIMS research are identified and captured.

EFFECTIVE PARTNERSHIPS

Significant progress was made in the joint venture between AIMS and James Cook University (JCU) known as AIMS@JCU with the addition of seven new post-graduate research scholarships and the construction of the new high tech Controlled Environment Facility as part of the AIMS aquarium system.

AIMS activities in Darwin were significantly enhanced by progress in the Arafura-Timor Research Facility (ATRF), the joint venture between AIMS and the Australian National University. The new facility is now fully tenanted and supporting a range of collaborative projects in northern Australia. Charles Darwin University (CDU) joined the board of the ATRF, enhancing the facility's regional focus and expertise. Board activities included a revised business plan which was recently approved by DEST and a performance review required by the Major National Research Facilities Programme. The outcomes of the review supported the valuable role of the ATRF in the Northern Territory and the research performance of the facility.

GROWING OPPORTUNITIES

Western Australia (WA) continues to present significant opportunities for AIMS to expand the application of our research capabilities and to provide research outcomes for the region. AIMS research in WA focuses on support for the Commonwealth and State marine protected area programmes and the provision of independent scientific advice and services to the major offshore industries. The value of AIMS long-term monitoring studies in this area, is increasingly apparent as both marine management agencies and the petroleum industry seek to better understand the variability and resilience of marine systems in response to natural and anthropogenic change. At Ningaloo Reef, AIMS undertook pioneering surveys of deepwater habitats discovering diverse and extensive

sponge grounds. This work was the first project in the Ningaloo Research Programme funded by the WA Government. From July 2006, the Ningaloo Research Programme will be subsumed into the Western Australian Marine Science Institution (WAMSI), a joint venture involving AIMS, CSIRO, Western Australian universities and key marine-related government departments. Closer integration with these collaborators will be assisted by the planned relocation of the AIMS WA office from Fremantle to the University of Western Australia (UWA) campus alongside the WAMSI offices.

As of next year, the CRC Reef and CRC Rainforest will be replaced by the new Marine and Tropical Sciences Research Facility (MTSRF) created as part of the Commonwealth Environment Research Facilities Programme to support public good research for the environment. In 2005-06, AIMS received advance funds from MTSRF to investigate the impacts of the rezoning of the Great Barrier Reef Marine Park on the biodiversity of coral reefs and inshore shoals. AIMS' engagement in MTSRF will help the Institute continue its progressive research on coral reefs, impacts of climate change and water quality.

SCIENCE LEADERSHIP

AIMS is a world leader in water quality studies and continues to provide strategic leadership for the Reef Water Quality Protection Plan (RWQPP). The Australian and Queensland Governments developed the Reef Plan in response to scientific research showing that the quality of water entering the Great Barrier Reef is declining and impacting the condition of Great Barrier Reef ecosystems. The Reef Plan sets out strategies to halt and reverse decline in water quality over the next ten years.

The Reef Plan Marine Monitoring Programme (Reef Plan MMP) draws on a research consortium including AIMS, CSIRO, Queensland Department of Natural Resources and Mines, Queensland Department of Primary Industries and Fisheries, Sea Research and the University of Queensland. AIMS is the major science provider in the programme which has successfully completed its second year of operations and is expected to mature into a decadal assessment of GBR water quality.

STRATEGIC CHALLENGES

While the marine ecosystems of northwest Australia are relatively poorly understood, they are already supporting valuable marine industries. A key industry for the region is the rapidly expanding energy sector which requires an understanding of environmental risk to support sustainable operations. The region is also facing increasing pressure from illegal fishing incursions which threaten Australia's marine biodiversity. There is an urgent need for scientific research to support the protection and sustainable management of the north's marine biodiversity. In addition, developing sustainable industries and opportunities for wealth generation will require an enhanced scientific presence in the region. To meet these needs, the Institute is seeking to expand co-investment opportunities enabling the development of new research programmes as well as the continuation of existing research initiatives.

AIMS has identified research into marine microbes (our new microBLUE™ initiative) as a major priority for the future. Microbes constitute more than 95% of marine biomass and are the primary engines of Earth's biosphere as they account for 98% of the oceans primary production. Understanding microbial communities has proven fundamental to developments in aquaculture and microbes will be the key to our ability to determine how marine organisms respond to climate change. Enhanced capacity in marine microbiology will help ensure Australia has the competitive skills to engage in the growing global interest in this rapidly emerging area of science and to capitalise on commercial opportunities from new discoveries.

AIMS has maintained high level of activity through co-investment in research programmes. Strategic partnerships have enabled AIMS to respond to national and international co-investment demands and opportunities. Enhanced capacity to apply the co-investment model beyond current commitments and improved ability to participate in collaborative research are key priorities for AIMS.

GOVERNANCE

An assessment of AIMS against the governance principles and templates established in the *Review of the Corporate Governance of Statutory Authorities and Office Holders* (Uhrig Review) was completed in June 2006. The Minister for Finance and Administration supported the assessment that AIMS should remain under the *Commonwealth Authorities and Companies Act 1997*. It was also agreed that the Council be enabled to appoint and remove the Chief Executive Officer to bring the Institute into closer alignment with the board best practice principles outlined in the Uhrig Review.

IN CONCLUSION

It is timely to publicly thank the Council members for their contribution to the Institute's strategic oversight. Nominated James Cook University representative Professor Ned Pankhurst, resigned from the Council in June. We thank him for his valuable contribution over this period.

AIMS staff, our most valuable asset, have demonstrated their expertise and leadership in marine science. All AIMS staff are thanked and congratulated for their work in scientific research, user uptake of our research, training, community consultation, science support and administration. Thank you to all the staff whose expertise, commitment and effort enabled AIMS to carry out its work efficiently and effectively for the benefits of all Australians.

It is the ongoing task of Council to ensure that this talent and commitment are directed where they will do the most good in meeting national priorities, maintaining the support of our stakeholders and contributing to the national science and innovation system.

REPORT OF OPERATIONS

- Report from AIMS CEO, Dr Ian Poiner
- Introduction
- Contribution to National Research Priority Goals
- Performance Measurement (Achievements against Performance Indicators)
- Role, Legislation and Minister
- Staffing and Structure
- Corporate Governance
- Public Accountability

Australian Government

Australian Institute of Marine Science

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CERTIFICATION OF REPORT OF OPERATIONS

The Council of the Australian Institute of Marine Science is responsible under Section 9 of the *Commonwealth Authorities and Companies Act 1997* (CAC Act) for the preparation and content of the Australian Institute of Marine Science's Report of Operations, in accordance with the Finance Minister's Orders.

Council endorsed the content of the Report of Operations by a resolution at its meeting of 25th September 2006.

Dr Ian Gould
Chairman
Australian Institute of Marine Science

Dr Ian Poiner
Chief Executive Officer
Australian Institute of Marine Science

Townsville address: PMB No 3
Townsville MC, Qld 4810
Tel: (07) 4753 4444

Darwin address: PO Box 40197
Casuarina, NT 0811
Tel: (08) 8920 9240

Perth address: PO Box 83
Fremantle, WA 6959
Tel: (08) 9433 4440

REPORT FROM AIMS CEO, DR IAN POINER


Photo: J. DeRooy

A major highlight of the year was AIMS achieving recognition as the most cited research institution in the world in the field of Environment and Ecology. According to the latest science impact report from the Institute for Scientific Information (ISI), AIMS is now ranked in the top 1% in this field, matching its ranking in the top 1% in the field of Animal and Plant Science. These independently reported measures of the quality of AIMS research output were supported in an AIMS-commissioned study of the Institute's bibliometric performance which was conducted by the Australian National University (ANU) Research Evaluation and Policy Project group. Such performance indicators signify AIMS' continued commitment to excellence in scientific research.

SCIENTIFIC ACHIEVEMENTS

Scientific achievements attracted national and international attention, emphasizing AIMS' world class expertise and further supporting the value of our collaborative networks. Some of the year's science highlights include:

- Research by AIMS' scientists demonstrated that adult corals can increase their thermal tolerance by as much as 1–1.5 ^{0}C by changing the composition of nutrient-providing zooxanthella algae in their tissues. While increased tolerance may not be sufficient to survive

climate change under the predicted sea surface temperature scenarios over the next 100 years, it may be enough to 'buy time' while greenhouse reduction measures are put in place.

- Surveys conducted by the AIMS Long-term Monitoring Team demonstrated that just two years after the re-zoning of the GBR, abundance of an important fish species, coral trout, increased by 50-60% in the new 'no-take' Green zones. These results demonstrate the value of long-term monitoring, the effectiveness of the new GBR Zoning Plan and the essential role of independent scientific advice in natural resource management.
- The Great Barrier Reef Seabed Biodiversity Project reached its conclusion this year as the final specimens were processed. The information collected during this large-scale project will now be used to create detailed maps of seafloor communities, databases, and management tools to help marine resource managers recognise and conserve important habitats and biodiversity hotspots in the Great Barrier Reef Marine Park.
- An AIMS research programme has shown a striking difference in the numbers and types of sharks on fished and unfished reefs in northern Australia. Sharks were found to be anywhere from 17 to 4 times less abundant at fished reefs, indicating the devastating impact of illegal shark fishing in the area.

CO-INVESTMENT

AIMS received a substantial $8.2m in revenue from externally funded research projects this year. The majority of this funding (58%) was sourced from the Australian Government/Industry sector. An increase in external funding from Australian Government sources was driven by co-invested research with the Western Australian Government at Ningaloo Reef. AIMS research also benefited from an increase in funding generated from Australian industry due to research supporting the oil and gas, and mining industries.

SHIFT IN RESOURCES

We continue to align our research with *National Research Priorities* and related initiatives and constantly review our capacity to deliver the greatest benefit from the investment in AIMS' research. During the year AIMS reorganised research effort to enable co-investment with major marine research funding programmes in Western Australia and Queensland to meet research needs associated with Ningaloo Reef and the Great Barrier Reef. Following an external expert review of the AIMS Biomolecular Resources and Innovation research team, we refocused some of our microbial, molecular and genetic capabilities to the problems of environmental stress. In addition, our biodiversity collection activities were enhanced to support the ongoing development of, and access to, the AIMS extract and compound library.

GLOBAL ENGAGEMENT

The Institute's success as a global leader in tropical marine science is largely attributable to our strategic international partnerships and collaborative networks. In the past 12 months, 47% of AIMS journal publications were co-authored with international researchers from 18 countries. Our research collaboration with the United States National Oceanic and Atmospheric Administration (NOAA) was strengthened in 2005-06 through joint research into the physical controls of coral bleaching in Micronesia and on the Great Barrier Reef as well as co-involvement (along with the Scripps Institution of Oceanography) in the CReefs Project (part of the global Census of Marine Life). The AIMS-NOAA partnership gives AIMS scientists improved access to data and images from American satellites.

EXTERNAL REVIEW

Performance measurement is a key element of the Institute's culture and is the basis for our case for support from governments and external stakeholders/clients. The Institute started a programme of regular review by external experts designed to assess the performance of all AIMS research teams. These reviews provide us with useful feedback to inform our management and planning. They are also key components of the AIMS response to the Quality and Accessibility Framework for Publicly Funded Research Agencies. Our approach was recently approved by the Minister for Education, Science and Training.

The first two teams reviewed were Biomolecular Resources and Innovation and Water Quality in the GBRWHA. The first review is largely complete and management has implemented changes in team structures and tasks for the final year of the triennium based on some of the recommendations of the expert panel.

THE YEAR AHEAD

Australia needs to develop new opportunities for sustainable industry, especially in regional Australia. The research infrastructure and collaborative networks at AIMS provide this capability. The Institute currently has a high commitment to co-invested research effort. While this adds value to the Government's investment, it severely limits AIMS' capacity to shift resources in response to opportunities created by advances in science and technology, and to the needs of the established and emerging marine industries of northern and western Australia.

In 2006-07 AIMS will complete its *Research Plan* and finalise its new 5-year strategic plan and research plan. In the next triennium, we plan to expand AIMS' capabilities to facilitate the continuation of existing research, an ability to respond to emerging marine science needs, an increased capacity in marine microbiology, and an increased ability to collaborate in tropical marine science and training with leading universities.

Maintaining and enhancing new and existing partnerships will be a focus for the year. AIMS@JCU and the ATRF will continue to be priorities as we build on our achievements to date. In addition to enhancing AIMS research profile in Western Australia, the new Western Australia Marine Science Institute will foster inter-agency collaboration on important issues such as climate change. The development of the Marine and Tropical Science Research Facility will support similar developments in the north east. AIMS will take a leadership role in the consortium developing the Great Barrier Reef Ocean Observing System (GBROOS). An integrated observing system for the Great Barrier Reef will monitor ocean processes responsible for dynamic changes in shelf ecosystems (1-10 years) and chronic, directional change (20-50 years) in support of management, industry and research.

Providing a clear picture of how we measure the performance of the Institute and providing clarity on staff performance assessment will improve our performance. Our Key Performance Goals, the milestone-based reporting system and the continued rolling expert external review of our Research Teams will also lead to continued improvement of the Institute's performance.

EVENTS SINCE 30 JUNE 2006

BHP Billiton will provide AIMS with $600,000 in funding over the next three years to coordinate research projects off Western Australia's North West Cape. The agreement between BHP Billiton and AIMS was launched by the Australian Government Minister for Education, Science and Training, the Hon Julie Bishop MP on the 28th of August 2006.

AIMS commissioned Tenix Defence Systems Pty Ltd to construct a new 35 m vessel to replace RV *Lady Basten*. Due to be launched in 2007, the RV *Solander* will provide the Institute with enhanced capability to operate in the open waters of northern and western Australia.

Insight Economics Pty Ltd completed their independent assessment of the economic impact of AIMS over its 33 years of operation and its performance within the context of the broader Australian Research and Development System. The report titled *Marine Imprint: the crucial impact of 33 years of AIMS research in the public interest* found that AIMS' scientific research is held in very high regard by industry, government and other AIMS stakeholders. With appropriate support the Institute's research is likely to continue to deliver strong net economic benefits for Australian taxpayers.

INTRODUCTION

Photo: E. Matson

AIMS provides research capacity that is directly relevant to the sustainable use and protection of Australia's marine environment, which is two and a half times larger than our land mass. Through investment in the expertise and infrastructure of AIMS, the Australian Government is supporting the development and application of new knowledge for sustainable use of marine resources while safeguarding those resources and the marine environment for future generations. The Institute adds value to this investment through national and international collaborations, strategic alliances and strong links to industry and community, consistent with the policy *Backing Australia's Ability*.

AIMS' research is developed through consultation with the key users of marine science and technology, and is prioritised within the framework established by our resources and capabilities, user needs, the *National Research Priorities* and *Australia's Oceans Policy*. This research, the aims of which are described in the *Research Plan*, is delivered through seven multidisciplinary research teams working in the areas of:

- Biodiversity assessment of new areas
- Environmental change and impacts
- Status and trends
- Sustainable coastal development in northern Australia

- Water quality of the Great Barrier Reef World Heritage Area (GBRWHA)
- Biomolecular resources and innovation; and
- Tropical aquaculture.

This research makes a significant contribution to the National Research Priority; *An Environmentally Sustainable Australia*. The Institute produces research outcomes relevant to both national (e.g. water quality of the Great Barrier Reef, management of the Great Barrier Reef and Ningaloo Marine Parks) and global problems (e.g. impacts of climate change on coral reefs). The Institute's research also contributes to the National Research Priority: *Frontier Technologies for Building and Transforming Australian Industries*.

INSTITUTE PLANS FOR RETIREMENT OF RV *LADY BASTEN*

The AIMS research vessel, RV *Lady Basten*, was launched in November 1978 and has provided the Institute's scientists and visitors with outstanding service for almost three decades. The Institute has made provision for her retirement as she closes in on the end of the normal 30 year working life for a steel vessel and its machinery. After six months of consultation with a diverse range of users and other marine agencies, the Institute advertised (March 2006) for tenders from Australian shipyards to supply a 35 m steel monohull based upon the proven design of the RV *Cape Ferguson*. In June 2006, Tenix Defence, Marine Division of Fremantle was appointed as the preferred tenderer and subsequently has been contracted to design and build the newest addition to the AIMS fleet.

The RV *Lady Basten* is scheduled to retire in late 2007 and will be replaced with the RV *Solander*.

CONTRIBUTION TO NATIONAL RESEARCH PRIORITY GOALS


Photo: A. Rankin

AIMS' mission directly aligns with the *National Research Priorities* and the Institute's entire budget is dedicated to research relevant to the priority areas. Examples of research outcomes against Priority Goals are presented in this section, with a guide to the relevant NRP Priority Goals (listed below) under each example. The relative contribution is categorised as highly relevant (■), very relevant (■) or relevant (■). More detailed descriptions of the NRPs are included in Appendix 3.

NATIONAL RESEARCH PRIORITY GOALS

A. An Environmentally Sustainable Australia

Transforming the way we utilise our land, water, mineral and energy resources through a better understanding of human and environmental systems and the use of new technologies

1. Water – a critical resource
2. Transforming existing industries
3. Overcoming soil loss, salinity and acidity
4. Reducing and capturing emissions in transport and energy generation
5. Sustainable use of Australia's biodiversity
6. Developing deep earth resources
7. Responding to climate change and variability

B. Promoting and Maintaining Good Health

Promoting good health and well being for all Australians

1. A healthy start to life
2. Ageing well, ageing productively
3. Preventive healthcare
4. Strengthening Australia's social and economic fabric

C. Frontier Technologies for Building and Transforming Australian Industries

Stimulating the growth of world-class Australian industries using innovative technologies developed from cutting-edge research

1. Breakthrough science
2. Frontier technologies
3. Advanced materials
4. Smart information use
5. Promoting an innovation culture and economy

D. Safeguarding Australia

Safeguarding Australia from terrorism, crime, invasive diseases and pests, strengthening our understanding of Australia's place in the region and the world and securing our infrastructure, particularly with respect to our digital systems

1. Critical infrastructure
2. Understanding our region and the world
3. Protecting Australia from invasive diseases and pests
4. Protecting Australia from terrorism and crime
5. Transformational defence technologies

A summary of the alignment between the objectives of AIMS' Research Teams and the *National Research Priorities*.

National Priority	***An Environmentally Sustainable Australia***				***Frontier Technologies for Building and Transforming Australian Industries***		
Priority Goal	A1 - Water – a critical resource	A2 - Transforming existing industries	A5 - Sustainable use of Australia's biodiversity	A7 - Responding to climate change and variability	C1 - Breakthrough science	C2 - Frontier technologies	C4 -Smart information use
Research Teams:							
Biodiversity assessment in new areas							
Environmental change and impacts							
Status and trends							
Sustainable coastal development for Northern Australia							
Water quality in the GBRWHA							
Biomolecular resources and innovation							
Tropical aquaculture							

Key:
- Highly Relevant – intended outcomes and planned activity directly focused on priority goals.
- Very Relevant – intended outcomes and activity closely related to priority goals, but also focused in related areas.
- Relevant – intended outcomes and planned activity related and likely to contribute to priority goals.

Note: Table includes only NRP Goals relevant to the expertise of, and addressed by, AIMS. A full list of NRP Goals is provided on pages 29-31 and 129-131.

Photo: AIMS Long Term Monitoring Team

EXAMPLES OF NATIONAL RESEARCH PRIORITY OUTCOMES


Photo: AIMS Long-term Monitoring Team

FISH SURVEYS DEMONSTRATE BENEFIT FROM NEW ZONING PLAN

Output

In 2005-06, the AIMS LTMP surveyed fish and coral populations on 26 reefs closed to fishing by the rezoning and 25 matched reefs from five geographic regions adjacent to coastal communities between Cairns and Gladstone (see highlight, p 5). The surveys showed that coral trout, the most important fish taken from the Park by commercial and recreational fisheries, had increased in abundance by an average of 50% across all regions on reefs closed to fishing by the rezoning.

Outcome

As these additional fish mature, their extra spawn is expected to enhance the replenishment of coral trout populations on nearby reefs that remain open to fishing, potentially offsetting the loss of fishable areas. This result has global application as fisheries managers elsewhere are adding spatial closures to other management arrangements to arrest worldwide over-harvesting of food fish stocks.

A5

A VALUABLE NEW TROPICAL AQUACULTURE INDUSTRY

Output

Following the success of the Fisheries Research and Development Corporation (FRDC) funded project *Understanding and removing the barriers to Penaeus monodon domestication,* the Institute has taken a similar partnership approach to the domestication of the tropical rock lobster, *Panulirus ornatus*, and is collaborating with the Queensland Department of Primary Industries and Fisheries (QDPI&F) and an industry partner (MG Kailis Group). The project aims to make industry independent of wild stock by developing larval-rearing protocols that are reliable on a commercial scale. The greatest impediment to the mass rearing of lobsters is their long larval development involving 12 different larval stages. Previous attempts to rear larval lobsters have been characterised by a very high mortality rate due to poor health and compromised nutrition. AIMS has introduced a number of changes to diet and control of microbial infections based upon sampling wild phyllosomas in the Coral Sea and has been rewarded by much greater survival rates in the hatchery. By the end of the reporting period, about 50 phyllosomas had been reared through to the penultimate moult.

Outcome

The industry partner in this project (MG Kailis Group) has now cultured a small number of tropical rock lobsters through to juveniles based upon adopting the new husbandry practices from AIMS. Lobster farming is now close to reality, with potential to become one of the most valuable marine food industries in Australia.

A2	A5

TECHNOLOGY TRANSFER AND NEW OPPORTUNITY FOR INDIGENOUS COMMUNITIES

Output

With assistance from AIMS' scientists, a pilot sponge farm has been created at Masig Island in the Torres Strait and maintained for 18 months. Local divers have reported sponge cuttings doubling in size over 6 months when suspended in mesh panels. Scientists have worked out the best size for such cuttings and have shown that natural sponges can survive and regenerate their mass even after 70% of their tissue has been removed. Due to the capacity of the sponge to be propagated from cuttings, there should be little or no need to harvest wild sponges once cultured stocks are abundant.

Outcome

A landmark collaborative agreement was signed on 26 July 2005 between two Aboriginal groups, the Manbarra Traditional Owners and the Colgaree CDEP, to progress sponge aquaculture in the waters around Palm Island. Already 10

trainees from the Palm Islands have been engaged on this project. Technology is being transferred to indigenous communities through workshops and traineeships, with the potential for sponge aquaculture to become a viable industry for some coastal indigenous communities in remote and regional Australia.

A5

SURVEYS OF FISHES BELOW DIVING DEPTHS

Output

AIMS has been refining Baited Remote Underwater Video Stations (BRUVS) as a method for sampling fishes in places where divers cannot go. While this usually means places below 30 m, in northern Australia it can also mean places where crocodiles are a problem. BRUVS have been applied and validated in diverse sampling projects which generated considerable interest from other scientists and potential clients interested in non-extractive means of census. The utility of the method has recently been extended by software developed at AIMS to extract and manage data from BRUVS footage. The software includes a reference library of images as well as data management functions.

Outcome

BRUVS hardware designs and standard operating procedures developed by AIMS have been adopted by the New South Wales National Parks and Wildlife Service for monitoring fishes in the Solitary Islands Marine Park, and for fishery-independent sampling in the north-western scale fish trap fishery. Internationally, BRUVS are being used for surveys of sharks and rays in Florida by MOTE Marine Laboratory and in the Bahamas by Cape Eleuthera Institute Predator Monitoring Programme.

A5

New software developed by AIMS has increased the international utility and application of BRUVS.

BASELINE SURVEYS OF INSHORE CORAL COMMUNITIES

Output

The first extensive survey of inshore reefs in the Great Barrier Reef Marine Park was conducted during 2004. Researchers found that coral communities were highly variable in all regions ranging from extremely high coral cover at some sites to very low cover at others. Analysis showed that variation in the structure of nearshore coral communities was correlated with sediment grain size and weakly correlated with estimated risk of exposure to polluted runoff. Researchers also found evidence that corals were recruiting in most regions, especially in the Wet Tropics region where reefs were extensively damaged by coral bleaching in 1998.

Outcome

The survey methods used by AIMS in this study have been adopted by the Marine Monitoring Programme of the joint Australian Government – Queensland Government Reef Water Quality Protection Plan (RWQPP), which seeks to assess the impact of improved land use practices on the condition of coastal reefs and other nearshore habitats.

A7

GCRMN: STATUS OF CORAL REEFS IN TSUNAMI AFFECTED COUNTRIES: 2005

Output

Clive Wilkinson, as coordinator of the Global Coral Reef Monitoring Network (GCRMN), has collated and published the scattered reports from different countries about the impacts of the 26 December 2004 tsunami on coral reefs and other coastal resources of the Indian Ocean. *Status of Coral Reefs in Tsunami Affected Countries: 2005* was published and released in Thailand in February 2006 and also launched in Washington DC (USA), London (UK) and Paris (France) in March 2006. The reports showed that there was relatively minor damage to the coral reefs, but massive damage on the land that was often exacerbated by poor coastal development.

Outcome

Status of Coral Reefs in Tsunami Affected Countries: 2005 provides a unique record of experience for governments considering the risk factors associated with uncontrolled coastal development. As a direct result, the government of Thailand requested technical assistance from AIMS with a project funded by AusAID on improving coastal management adjacent to two Marine Parks.

A7

AIMS SIGNS MOU WITH INDONESIAN AGENCY

Output

A Memorandum of Understanding (MoU) was signed in January 2006 with Indonesia's Agency for Fisheries and Marine Research (AFMR). AFMR is the central agency under the Ministry of Marine Affairs and Fisheries.

Outcome

The MoU has facilitated two projects for sustainable development and alternative livelihoods in Indonesia. David McKinnon is leading the project Planning Tools for Environmentally Sustainable Tropical Finfish Cage Culture in Indonesia and northern Australia. This is co-funded by the Australian Centre for International Agricultural Research (ACIAR) and implemented in partnership with Indonesia's Research Institute for Coastal Aquaculture, Maros, South Sulawesi. Tony Wright is leading the project Exploration of Indonesian Marine Biodiversity for Bio-technological Commercialisation. This is co-funded by AusAID's Public Sector Linkages Programme and implemented in partnership with Dr Hari Eko Irianto at Indonesia Research Centre for Marine and Fisheries Product Processing and Biotechnology. The latter will provide comprehensive training in Australia on all aspects of biodiscovery to a number of Indonesian scientists, who will lead this work on their return to Indonesia.

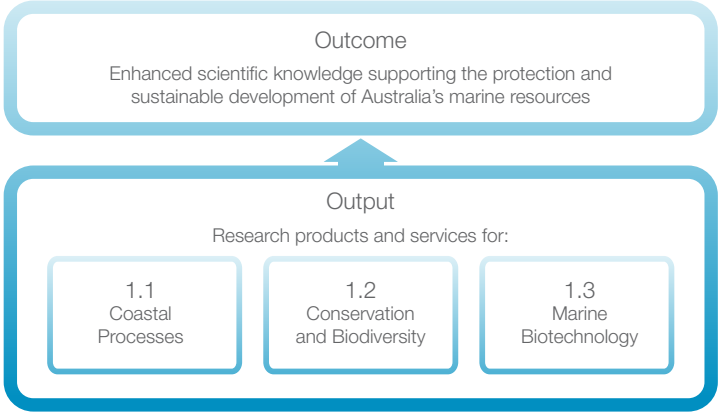
A5

Photo: A. McDonald

PERFORMANCE MEASUREMENT [ACHIEVEMENTS AGAINST PERFORMANCE INDICATORS]

Photo: S. Jackson

The efficiency and effectiveness of AIMS' research is assessed against performance indicators that have been agreed between the Government and the Institute as part of the 2004-07 Triennium Funding Agreement (see Appendix 2). This section of the report describes AIMS' achievements against those indicators and demonstrates a range of environmental, social and economic benefits from AIMS' research. These are consistent with the Output-Outcome framework agreed with the Australian Government (see figure below) and contribute to Priority Goals of the *National Research Priorities*.



AIMS@JCU SUPPORTS YOUNG RESEARCHERS

AIMS@JCU is a collaborative joint venture between the Australian Institute of Marine Science and James Cook University, funded by the Australian Government.

The study of tropical marine science in North Queensland has been boosted by seven additional post graduate research scholarships through AIMS@JCU. The scholarships will support significant new research in the Great Barrier Reef region and provide research training opportunities for students.

Eneour Puill-Stephan, Vasiliki Tziouveli and Wu Xugan were awarded full scholarships.

Vivian Cumbo, Ronald Hoeke, Jasmine Jaffrés and Francois Seneca were awarded "operating grants" to support the costs of their research projects.

This new round of scholarships means that AIMS@JCU is now supporting 11 full-time research students. The AIMS@JCU collaboration gives them access to a world-class research network and excellent facilities and resources at both institutions, including the Marine and Aquaculture Facilities Unit at James Cook University and the new Controlled Environment Facility at AIMS.

The students' research projects will cover a range of issues including:

- how corals resist disease
- how corals handle heat stress
- cellular stress response in corals
- wave circulation effects on corals
- breeding of ornamental marine shrimp
- nutritional research to enhance the aquaculture of crabs and rock lobsters
- the effects of increased carbon dioxide levels on reef and plankton growth

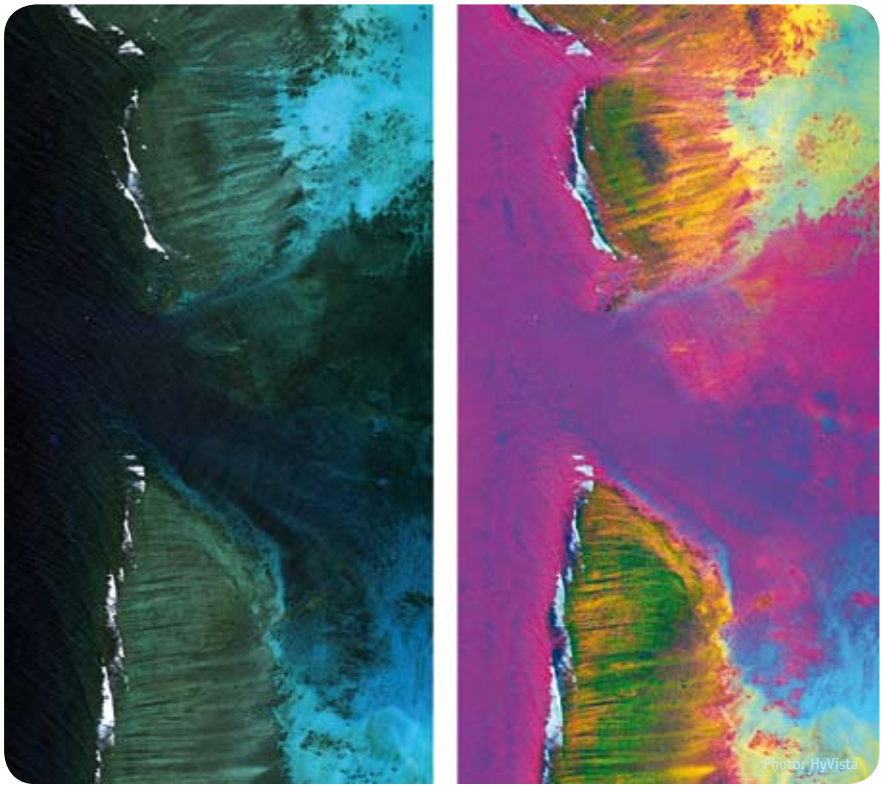
AIMS@JCU controlled environment facility.

NEW KNOWLEDGE AND COLLABORATIVE R&D

Shift of resources to priority areas

AIMS maintains a regular process of review in managing its research portfolio. This includes evaluation of the effectiveness of the research, regular stakeholder consultation and review of emerging needs and/or opportunities. Where possible, AIMS shifts resources to provide science to meet these emerging needs and to capture mission-relevant research opportunities. During this reporting period, AIMS shifted resources to enable co-investment with major marine research funding programmes in Western Australia and Queensland, meeting research needs associated with Ningaloo Reef and the Great Barrier Reef.

- AIMS coordinated two "start up" projects which will contribute to the Western Australian Marine Science Institution (WAMSI). In conjunction with the Western Australian Museum and other partners, AIMS led the first of several planned surveys for mapping the seabed and associated benthos (see highlight, p 7). AIMS also collaborated with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and University of Western Australia to measure wave pumping across the fringing barrier reef to underpin the development of a numerical model of lagoonal circulation that will become a general use tool for a range of other studies in the Ningaloo Research Progamme.



Using the latest technology, hyperspectral aerial photographs (left) are digitally processed to separate spectral signatures (right) which indicate a variety of marine habitats.

- Scientific information was required to inform the Great Barrier Reef Marine Park Authority (GBRMPA) about the efficacy of its expanded "no take" zones which came into operation in July 2004 following the declaration of the Great Barrier Reef Marine Park Zoning Plan. During this reporting period, the traditional mission of the AIMS LTMP was redesigned to answer this question, but only on the basis of expert statistical advice that this shift of resources would not compromise the broad-scale monitoring of reef health that has been in place for 15 years. This decision now allows the resources of this team to be applied to new problems in alternate years. In 2005-06, the LTMP was able to demonstrate recovery in the densities of the most important fish taken from coral reefs (coral trout) within 18-24 months of the cessation of fishing (see highlight, p 5). This increases AIMS support for the National Research Priority Goal A5 *(Sustainable Use of Australia's Biodiversity)*.

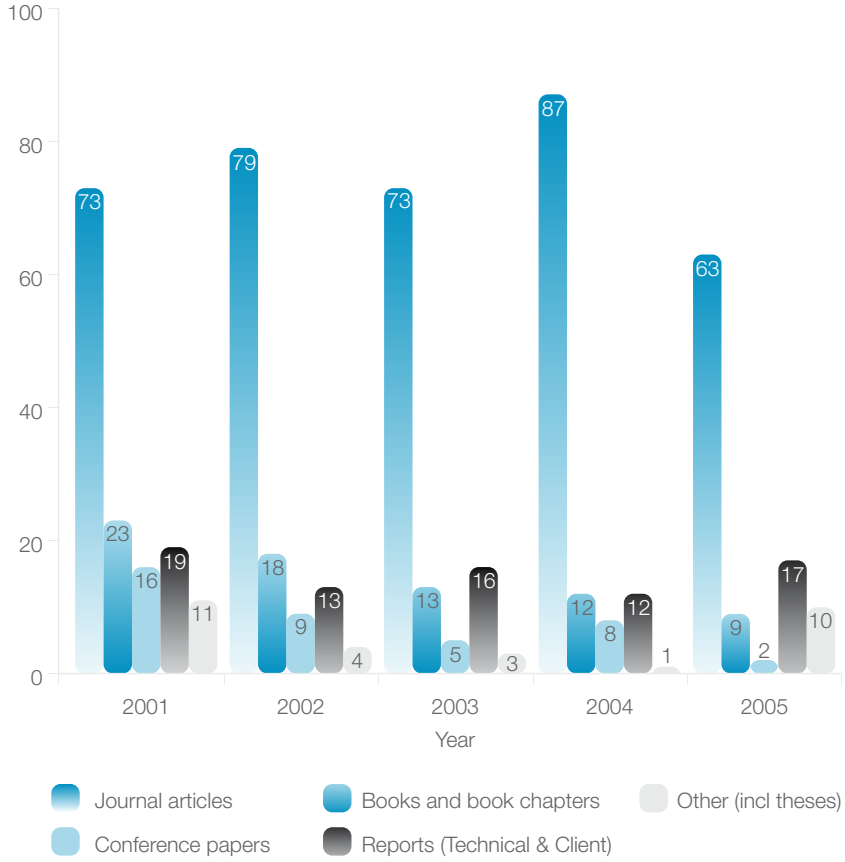
Scientific publications

AIMS continued to focus significant resources on reporting research results to its scientific peers, clients, stakeholders and end-users. Its success in doing so was reflected in an Institute for Scientific Information (ISI) Essential Science analysis that identified AIMS as the most cited research institution in the world in the field of Environment and Ecology. Publication data over the past five years are shown in the following graph as at 30 June 2006.

There is a decrease in the number of journal publications for 2005, although indications are that 2004 was an exceptional year due to special issues on topics relevant to AIMS research. Despite the reduced numbers of papers for this reporting period, AIMS continues to publish in high impact journals and citation rates are above the world average (see Citation Analysis, p 44).

Several reasons could account for a decline in this output measure, including time spent reviewing team performance, final reporting associated with the wind-down of CRC Reef and requirements for proposal development in the past two years arising from new activities (MTSRF, Commonwealth Environment Research Facilities (CERF), WAMSI, National Collaborative Research Infrastructure Strategy (NCRIS)), most of which had multiple threads requiring proposals in different subject areas. In addition, several senior scientists were absent on secondments or long service leave during the reporting period. In spite of this, there was a healthy upsurge in thesis completions, with nine students being awarded their final degrees in 2005-06.

Increasingly, AIMS is using electronic media, such as CD-ROM and websites, to provide users with interactive reports and access to the underlying data. These means of distribution are particularly suitable for complex, multi-layered projects such as the LTMP. For example, the latest Status Report for the Great Barrier Reef Marine Park (GBRMP) was released on CD-ROM at the First



International Marine Protected Areas Congress (Geelong, 23-28 October 2005) as well as being published on the team's website (www.aims.gov.au/pages/research/reef-monitoring/reef-monitoring-index.html).

AIMS augments its printed research output, and links to the community, by hosting a substantial amount of information on its websites. The Institute's external website (www.aims.gov.au) is constantly revised, currently holding 15,000 pages. During the reporting period, there were 197,000 visits to the site via the main point of entry and 1.4 million visits to the website through other links such as search engines and bookmarked pages. The AIMS-CRC Reef website (www.reeffutures.org) received 117,000 visitors who viewed almost half a million pages of information. Across the web, 540 sites link directly to the Institute's home page, with a further 243 sites linking to the educational resource entry point (www.aims.gov.au/projectnet), suggesting that the Institute's website is valued as an authoritative source of information.

Public tours continue to provide an effective means of informing the community about the Institute's activities. A dedicated group of volunteer guides makes these tours possible. During 2005-06, there were 61 group tours of the

Institute. Another significant public outreach activity undertaken during the year was the publication of an education supplement, aimed at raising awareness of tropical marine science among secondary school children, in the Canberra Times. AIMS also contributed to the Careers in Science initiative, a multi-agency effort to encourage more secondary school students to consider science as a career option (www.careersinscience.gov.au).

Citation analysis

AIMS is the most cited research institution in the world in the field of Environment and Ecology and is now in the top 1% in this field, matching its ranking in the top 1% in the field of Animal and Plant Science according to the latest science impact report from ISI.

The ISI-Essential Science Indicators (ISI-ESI) analysis is the leading international source of information on scientific publications that enables analyses of research performance and trends in science. The ISI analysis states: "the Australian Institute of Marine Science recently entered the top 1% in terms of total citations in the field of Environment & Ecology. AIMS had the highest total citations. The Institute's current record in this field is 142 papers cited a total of 1,526 times to date. Its record in Plant & Animal Science currently includes 381 papers cited a total of 4,011 times to date.

Previously the ISI had placed AIMS in the top 1% of specialist research organisations making an international impact. In the field of coral reef ecology in the past 10 years, AIMS' citation rate ranked second in the list of 1,600 institutions throughout the world, with two AIMS staff ranked in the top 20 cited researchers over the past 10 years. Our partner in the AIMS@JCU joint venture, James Cook University, was ranked number one in coral reef ecology, further emphasising Townsville's importance as an international hub of marine science.

These independently reported measures of the quality of AIMS research output were verified in an AIMS-commissioned study of the Institute's bibliometric performance which was conducted by the Australian National University Research Evaluation and Policy Project group. This report found:

- AIMS has a citation rate nearly 10% above the world benchmark.
- AIMS' strongest citation performance was in the Marine and Freshwater Biology journal set, where its relative citation impact is over one-third higher than the world rate. AIMS' citation rate in Ecology and Evolution was also high – 20% above the world average.
- AIMS' output is appearing in high impact journals – on average the journals have a citation impact 40% above the world benchmark for the discipline mix.
- AIMS collaborates with a wide range of countries.

Recognition by peers

During the reporting period, outstanding contributions by several individual staff members were recognised by a number of national and international professional bodies.

Awards

- Eric Wolanski spent three months as an Erasmus Mundus Scholar, collaborating with Belgium colleagues on improved oceanographic modelling. The first output has been the creation of a state-of-the-art hydrodynamic model for the entire Great Barrier Reef. This model will help us to understand a number of complex ecological phenomena (e.g. crown-of-thorns starfish outbreaks).
- Angus Thompson, Mary Wakeford and Hugh Sweatman were part of the Maldives Tsunami Taskforce Project given the CSIRO Partnership Excellence Award. This award recognises projects that exemplify quality national and/or international partnerships or alliances.
- Meir Sussman won first prize at the Annual Conference of the Australian Coral Reef Society, Heron Island, August 2005, for the talk: Identification of the pathogen causing white syndrome on corals from the Marshall Islands, Sussman M, Jacobsen D, Page C, Bourne D and Willis B (2005).
- Piers Ettinger-Epstein, an AIMS@JCU student, was awarded $5,000 by the Queensland Department of Premier and Cabinet through its programme Growing the Smart State for the project, Marine natural products: developing supply sources.

The reputation and expertise of AIMS' research staff continued to be recognised by invitations to staff to give presentations across a broad range of tropical marine science. In this reporting period, AIMS staff delivered 18 presentations by invitation, including 11 plenary or keynote speeches. In addition, there were a number of requests to provide expert advice in new forums additional to the long list of continuing contributions summarised in Appendix 5.

Plenaries

- Dan Alongi - The role of mangrove forests in global greenhouse gas emissions International Symposium on Mangrove and Greenhouse Gas Emissions, Tsukuba, Japan, 3-5 October 2005.
- Chris Battershill - Biodiversity in Australia's marine estate: conservation to clinic. AMSA Annual Conference, Darwin, 10-13 July 2005.
- Chris Battershill - Drugs from the Sea. Australian and New Zealand Society of Occupational Medicine. 36th Annual Scientific Meeting, Melbourne & Launceston, August 22-26, 2005.
- Peter Doherty - Great Barrier Reef Seabed Biodiversity Project: a progress report AMSA Annual Conference, Darwin, 10-13 July 2005.
- Walt Dunlap - Biosynthetic expression of marine bioactive metabolites. 12th Workshop Symposium on Microbial Resources, Shuzenji, Japan, 28-29 October 2005.

- Katharina Fabricius - *Muddy Waters: Review of the Effects of Terrestrial Runoff on Coral Reef Ecosystems*. Ocean Science Conference 2006, Hawaii, February 17-26, 2006.
- Mike Hall - Rock lobster propagation. 4th National Lobster Congress, Hobart, October 11-13 2005.
- Lyndon Llewellyn - *The behaviour of mixtures of paralytic shellfish toxins in receptor dependent assays*. Association of Official Analytical Chemists, Florida, September 2005.
- Madeleine van Oppen - Flexibility of the coral-algal symbiosis. 17th International Botanical Conference, 17-23 July, Vienna, Austria.
- Clive Wilkinson - *Status of Coral Reefs in Tsunami Affected Countries: 2005*. IOC/WESTPAC meeting, Phuket, Thailand, 20 February 2006; and World Maritime Technology Conference, London, 7 March 2006.
- Eric Wolanski - Estuarine Ecohydrology. International EMECS science meeting, Kobe, Japan, 7 December 2005.

Expert committees

- Clive Wilkinson invited by Agence Française de Développement to be senior scientific adviser for the Coral Reef Initiative in the South Pacific (CRISP).
- Ian Poiner invited by the Japan Foundation to be a member of the organising committee of the Japan–Australia Marine Forum.
- Ian Poiner appointed to chair the Scientific Peer Review Panel for the National Representative System of Marine Protected Areas.
- Ian Poiner invited by GBRMPA to chair the review of Fishing Power Increases in the Queensland East Coast Trawl Fishery.
- Ian Poiner appointed to the NCRIS Expert Subcommittee (Environmentally Sustainable Australia). The subcommittee contributed to the development of the NCRIS Strategic Roadmap which identified priorities for investment in national research infrastructure.
- Ian Poiner was appointed to the Advisory Committee of the ARC Centre of Excellence for Coral Reef Studies.
- Janice Lough facilitated the working group on Climate change & marine, estuarine & coastal ecosystems at National Biodiversity and Climate Change Action Plan Research and Information Gaps Workshop, Australian Government Department of the Environment and Heritage (DEH), Canberra, 8-10 June 2005.
- Lyndon Llewellyn joined the accreditation panel of the Institute of Marine Engineering, Science and Technology (IMarEST).
- Lyndon Llewellyn advised the Australian Federal Police on Australia's capacity to cope with aquatic toxins as part of their review of the adequacy of laboratory capability and capacity in support of counter-terrorism, 26 June 2006.
- Peter Doherty appointed to chair the Scientific Advisory Group of TrawlMac, which provides advice about trawl fisheries to the Deputy Director-General (Fisheries) of QDPI&F. The advisory group coordinates the scientific input into Queensland's most valuable fisheries.

External assessment and review

In the reporting period, the Institute started a programme of regular review by external experts designed to assess the performance of all AIMS research teams by the end of the triennium (June 2007). These reviews will provide us with useful feedback to inform our planning and form part of the Quality and Accessibility Framework for Publicly Funded Research (announced in the *Backing Australia's Ability – Building Our Future Through Science and Innovation* initiative, May 2004).

The first two teams to be reviewed were Biomolecular Resources and Innovation (6-8 December 2005) and Water Quality in the GBRWHA (1-3 June 2006). The first review is largely complete and management has implemented changes in team structures and tasks for the final year of the triennium based on some of the recommendations of the expert panel. The second review was not complete at the reporting boundary, with the draft findings of the second panel only being submitted on 30 June 2006.

In addition to the expert reviews of research team performance, AIMS management requested a review of all investments in monitoring activities ranging from the LTMP (broad scale monitoring of reef health) to weather stations (marine climate), long-term moorings (ocean currents) and extended ecological time series (e.g. water quality, fish recruitment, etc). This review was held on 12-14 October 2005 and its findings will be considered during the triennium planning process scheduled for the second half of 2006.

Co-investment in research

Co-invested research through joint ventures, strategic alliances and significant collaborations represents the majority of the Institute's research effort. This approach maximises the value of each appropriation dollar and builds critical mass to address complex questions relevant to sustainable use and protection of marine resources.

Joint ventures and strategic alliances

AIMS@JCU. Building continued throughout the year to upgrade seawater facilities at AIMS and James Cook University in support of tropical aquaculture projects. When complete, a state-of-the-art controlled environment facility will provide access to air conditioned rooms with filtered ambient seawater at any temperature. When the facility opens in the third quarter of 2006, it is expected that at least four AIMS@JCU scholars will work alongside AIMS scientists on the larval rearing of tropical crustaceans and research into larval nutrition. In addition to the five scholarships awarded to students last year, the AIMS@JCU Board approved another seven PhD scholarships and four Honours scholarships for students starting in 2006 (see boxed text, p 40).

ATRF. The Arafura Timor Research Facility (ATRF) is an unincorporated joint venture between AIMS and Australian National University and is located in Darwin adjacent to Charles Darwin University (CDU). On 5 September 2005

AIMS IN THE NORTHERN TERRITORY

AIMS concluded a preliminary programme of water quality monitoring in Darwin Harbour. This work has recently been incorporated into a report entitled The *Health of the Aquatic Environment in the Darwin Harbour Region,* by the Northern Territory Department of Natural Resources, Environment and the Arts (NRETA).

This research provides basic knowledge about Darwin Harbour showing, for example, that freshwater inflows can extend well into the main body of the harbour, and that this has a marked effect on turbidity and zooplankton population in the upper reaches. These linkages between the harbour's physical environment and its biology are just beginning to be understood.

The Alcan bauxite mine and alumina refinery at Nhulunbuy on the Gove Peninsula in East Arnhem Land, Northern Territory, has established the Marine Health Monitoring Programme to assess the impact its operations may be having on the marine environment in Melville Bay and to set Discharge Quality Guidelines for environmental protection.

AIMS became an active participant in the Alcan Marine Health Monitoring Programme in August 2005 through its partnership with Charles Darwin University. AIMS has also undertaken other work with the Environmental Research Institute of the Supervising Scientist (ERISS) to find indicator organisms for ecosystem health.

During the year, AIMS has conducted substantial fieldwork to develop a predictive model of circulation in southern Melville Bay. In partnership with Charles Darwin University, AIMS is also studying nutrient cycling to understand the role of nutrients in the health of the bay.

AIMS continued its work in the Daly River on predictive modelling of sedimentation caused by potential freshwater usage (in partnership with NRETA and with funds from the National Heritage Trust).

Charles Darwin University joined the Board of the ATRF, further enhancing the collaborative research effort in Darwin. The new facility is now fully tenanted and supports a range of collaborative and/or co-invested projects, including:

- Coastal migration patterns of jewfish;
- Satellite tracking of whale shark migration;
- Environmental monitoring;
- Foreign fishing; and
- Sponge farming.

In August 2005, the newly-completed facility won three awards in the Northern Territory Building and Construction Excellence Awards. These were:

- Commercial Construction ($3m - $10m)

- President's Award for the most outstanding project in all categories
- Excellence in Building for the Northern Territory Climate

During the period, the ATRF, which was funded under the Major National Research Facilities Programme, underwent a performance review in March 2006 commissioned by the Australian Government Department of Education, Science and Training (DEST). The outcomes of the review supported the valuable role of the ATRF in the Northern Territory and the performance of the facility in facilitating new research.

AIMS IN QUEENSLAND

The Reef Water Quality Protection Plan (RWQPP), released by the Australian and Queensland Governments in December 2003, is the primary management framework to "halt or reverse the decline in water quality entering the reef". Most of the RWQPP focuses on land-based actions to improve land use practices and so reduce the amount of nutrients and sediment entering river systems flowing into the Great Barrier Reef World Heritage Area (GBRWHA).

As part of its role in the RWQPP, the Great Barrier Reef Marine Park Authority has established the RWQPP Marine Monitoring Programme (RWQPP MMP) to monitor water quality on the Great Barrier Reef.

This programme builds on past and present AIMS long-term biological and water quality research projects, which provide essential baseline information. AIMS is the major service provider in a multi-institutional monitoring consortium (AIMS, University of Queensland, Queensland Health Scientific Services, Queensland Department of Primary Industries and Fisheries, CSIRO, Queensland Natural Resources, Mines and Water, Queensland Environmental Protection Agency, Sea Research) coordinated by the Cooperative Research Centre for the Great Barrier Reef World Heritage Area (CRC Reef). The RWQPP MMP is jointly delivered by these partners to track long-term changes in river outputs of fine sediment, nutrients and pesticides, and the health of nearshore ecosystems including coral reefs and seagrasses.

The RWQPP MMP began formally in June 2005 and has now completed its first full year of sampling. In addition to monitoring carried out by consortium scientists, the programme involved setting up a coast-wide network of community and marine industry volunteers who are collecting and preparing water samples to monitor nutrient and chlorophyll in river mouths, coastal and Great Barrier Reef lagoon waters. Future hands-on involvement of communities and the reporting of the outcomes to Great Barrier Reef catchment communities and stakeholders will be essential to the ongoing success of the programme.

ARC Centre of Excellence for Coral Reef Studies. Three AIMS scientists (Janice Lough, Mark Meekan, and Madeleine van Oppen) are Partner Investigators in the ARC Centre of Excellence (www.coralcoe.org.au) which was established in 2005. The ARC Centre of Excellence is a partnership of James Cook University, AIMS, Australian National University, GBRMPA and University of Queensland, with collaborative links to 24 additional institutions in 9 countries. The centre has 5 Programmes: Dr Janice Lough is a member of Programme 1: Evolutionary and environmental change; Dr Mark Meekan is a member of Programme 3: Marine reserves and reef connectivity; and Dr Madeleine van Oppen is a member of Programme 4: Genetic, molecular and physiological processes. AIMS and the centre are co-funding post-doctoral scientists in Programme 1 and Programme 4 with additional support from James Cook University and Australian National University, respectively.

CRC Reef. After two terms totalling 13 years, CRC Reef will not be renewed and will be wound-up before the end of December 2006. AIMS scientists have been exceptionally busy during the year finalising and reporting on a range of co-invested projects in biodiversity (see highlight, p 6), climate (see highlight, p 14) and water quality (boxed text, p 49).

CReefs. Scientists from Scripps Institution of Oceanography, AIMS and the Pacific Islands Fisheries Science Center of the United States National Oceanic and Atmospheric Administration (NOAA) are collaborating on a global census of coral reefs. CReefs is one of 17 projects affiliated with the global Census of Marine Life (CoML) Project. It will fill significant gaps in our knowledge of the species associated with coral reefs. As a result, a number of AIMS data sets have now been served to the international distributed database of the Census, the Ocean Biogeographic Information System (OBIS). Planning is also underway for an expedition to the Northwest Hawaiian Islands.

RWQPP Marine Monitoring Programme. AIMS is the major provider of monitoring services for the Marine Monitoring Programme of the Reef Water Quality Protection Plan (RWQPP). The monitoring programme is carried out by a consortium (AIMS, University of Queensland, QDPI&F, CSIRO, Queensland Department of Natural Resources, Mines and Water (QNRMW), Queensland Environmental Protection Agency (QEPA), Sea Research) and is coordinated through CRC Reef. The first full year of sampling has just been completed, providing a reference (baselines) for tracking long-term changes in river pollution and the health of coastal waters and ecosystems (reef and seagrass). In addition to monitoring carried out by consortium scientists, the programme supports a distributed network of community and marine industry volunteers who are collecting and preparing water samples for the monitoring of nutrients and chlorophyll in river, coastal and lagoon waters.

MTSRF. From July 2006, the niche previously occupied by CRC Reef and CRC Rainforest will be partially filled by the new Marine and Tropical Sciences Research Facility (MTSRF) created as part of the $100m Commonwealth Environment Research Facilities programme to support public good research

for the environment. These funds are administered through the Australian Government Department of the Environment and Heritage and the Annual Research Plan is approved by the Minister for the Environment. In 2005-06, AIMS received advance funds from MTSRF to investigate the impacts of the rezoning of the marine park upon the biodiversity of coral reefs and inshore shoals (see highlight, p 5).

WAMSI. The Western Australian Marine Science Institution (WAMSI) is in the process of being established as a joint venture involving the WA universities, state and federal research organisations and industry partners. In June 2005, the Western Australian Government provided an additional $16m for WAMSI's Ningaloo research from the Western Australian Major Research Facility Programme. AIMS has already developed successful project proposals for the first year of WAMSI in the areas of biodiversity assessment and monitoring, and downscaling climate change, and is likely to co-invest in work for Sustainable Marine Ecosystems: Ecologically Sustainable Development for the Marine State's Fisheries (Node 4). In addition, AIMS scientist Chris Battershill has been appointed to lead Node 5, Marine Biotechnology & Biodiversity, based on Western Australian marine biodiversity.

Number of collaborations

The Institute's collaborations with national and overseas partners add significant value to AIMS research outputs and outcomes. In the past 12 months, 79% of AIMS journal publications were co-authored with researchers from other institutions, and 47% were co-authored with researchers from foreign organisations (see pie chart, p 53). In the reporting period, AIMS sustained collaborations with 87 organisations, covering all states and territories of Australia and 18 overseas countries. Examples of the value adding obtained from collaboration range from access to specialised equipment or facilities through to reaching critical intellectual mass.

- The research collaboration with NOAA was strengthened in 2005-06 through joint research into the physical controls of coral bleaching in

AIMS IN WESTERN AUSTRALIA

AIMS' research in Western Australia continues to revolve around support for the federal and state marine protected area programmes and the major offshore oil and gas industries. The value of the AIMS long-term monitoring programme is increasingly apparent as both marine management agencies and the petroleum industry seek to better understand the natural variability of sensitive ecosystems such as the western coral reefs.

At the Rowley Shoals, west of Broome, a review of the decade-long reef monitoring data shows that while these remote offshore reefs have escaped catastrophic bleaching impacts so far, they have experienced major disturbance from cyclones.

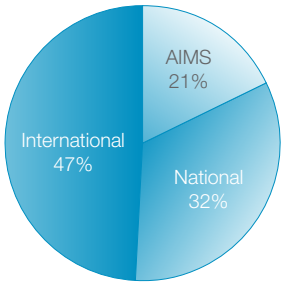
While the coral communities are recouperating, there has been a significant shift in species composition during the recovery period. Continued monitoring of the Rowley Shoals is planned, in collaboration with the Department of Environment and Heritage and Western Australian Conservation and Land Management. Future monitoring efforts will maintain a focus on ecosystem health by conducting a regular census of key environmental indicator species such as sessile benthic communities, fish, sharks and exploited invertebrates.

Further south at Ningaloo Reef, AIMS researchers surveyed habitats on the seaward side of the fringing barrier reef as the first project in a $5m Ningaloo research initiative funded by the Western Australian Government. The use of cutting-edge technologies revealed deepwater sponge communities and other key habitat types, contributing to a multidisciplinary effort to better understand and manage the marine park's valuable resources.

From July 2006, the Ningaloo Research Programme will be integrated into the Western Australian Marine Science Institution (WAMSI), a joint venture involving AIMS, CSIRO, state universities and relevant Western Australian Government departments. Enhanced collaboration will be assisted by the relocation of the AIMS office from Fremantle to the University of Western Australia campus.

Micronesia and the Great Barrier Reef. This relationship gives AIMS scientists better access to the data flows and products from American satellites. The AIMS-NOAA relationship was further strengthened by becoming partners in the CReefs project, which is part of the global Census of Marine Life along with the Scripps Institution of Oceanography.

- Bioscience North Australia is a new collaboration between AIMS, Charles Darwin University, Northern Territory Government and the Menzies



Collaborative Publications 2005

Institute that was formally launched on 27 October 2005 at Charles Darwin University and the ATRF by the Northern Territory Minister for Economic Development, Hon Paul Henderson MLA. Bioscience North Australia will focus on research and development of microbiological and molecular resources of the Northern Territory for which the government contributed $330,000 for the purchase of a gene analyser that will be located at the ATRF. AIMS has co-invested in this facility, including support for the inaugural Research Fellow.

- The Great Barrier Reef Seabed Biodiversity Project continued during the reporting period. This is a collaboration between four research providers (AIMS, CSIRO, QDIP&F, Queensland Museum), three funding agencies (CRC Reef, FRDC, DEH) and the marine park manager (GBRMPA). Each of the providers contributed major assets (vessels, specialised equipment) or expertise. In total, more than 50 staff from the four providers contributed skills in biology, ecology, geology, physics and mathematics to the research.
- The Prawn Domestication Project is a partnership between three research providers (AIMS, CSIRO, QDPI&F) and the prawn aquaculture industry that is led by the industry peak body, the Australian Prawn Farmers Association. This has brought together skills and experience ranging from animal husbandry, nutrition, disease control and quantitative genetics to domesticate this valuable prawn and break the reliance of hatchery operators upon wild broodstock. The project has made good progress and spent the year raising more than 1,000 domesticated broodstock from 36 selectively bred genetic families. These prawns will be shipped to commercial aquaculture farms throughout Queensland to test their viability on a commercial scale.
- The Reef Water Quality Protection Plan Marine Monitoring Programme depends on a mixture of monitoring by agency scientists and community volunteers. QDPI&F supervises a volunteer network that monitors seagrass condition and trend at 22 locations throughout coastal Queensland. AIMS trains and supports a distributed network of community and marine industry volunteers who are collecting and preparing water samples as part of the monitoring of nutrients and chlorophyll levels in river, coastal and lagoon waters.

Scientists from AIMS train local volunteers to collect and analyse water samples as part of a collaborative initiative to improve water quality in the Douglas Shire.

RESEARCH SERVICES, SPECIALISED CONSULTING

AIMS occupies a niche between the investigator-driven fundamental research done by many university academics and the client-driven applied research of publicly funded research agencies. The Institute does not undertake fee-for-service activities like private consulting firms but does co-invest with industry where industry data needs and AIMS strategic research needs overlap. A good example of the latter is the co-investment in assessment and monitoring of offshore coral reefs in the Timor Sea, which has been supported since 1993 by Woodside Energy. AIMS' long-term study of the northwest Australia to understand the coral and fish communities of these offshore reefs and their natural variability is providing invaluable knowledge now that the industry is moving to tap a large natural gas field beneath Scott Reef. In this reporting period, in partnership with Charles Darwin University, the Institute began to provide a similar range of services to the Alcan Gove bauxite mine and alumina refinery. This relationship, if sustained, will enable AIMS to increase its knowledge of coastal marine systems in this remote part of the Northern Territory. AIMS will also continue to influence government policy or industry

practice. Examples include AIMS' leadership in influencing new Australian Government legislation on biodiversity that was introduced in late 2005. The Institute will now use this model to negotiate Access and Benefit Sharing Agreements with several states and the Northern Territory to enhance industry investment in Australian marine biodiscovery.

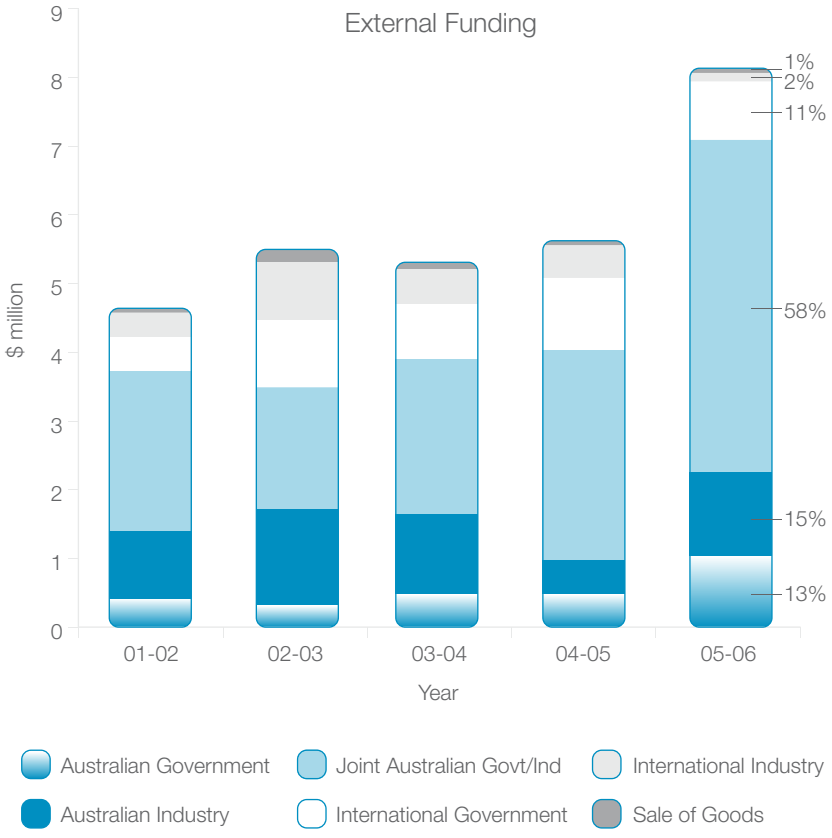
External revenue

Total revenue from externally funded research projects during the year was $8.2m. This was an extraordinary result largely due to the winding down of CRC Reef, escalation of effort to establish the RWQPP Marine Monitoring Programme, and work begun at Ningaloo at the request of the Western Australian Government prior to the anticipated WAMSI research programme. Unlike other major externally funded research these programmes had the majority of expenses confined to the reporting period, further boosting the revenue figures reported. The completion of the CRC Reef in September 2006 will reduce expected external earnings for 2006-07 to approximately $7m.

The Australian Government/Industry sector continues to be the largest sector contributing 58% of external revenue for the year. Significantly, the contribution from the Australian Government sector increased to 13% with co-invested research with the Western Australian Government at Ningaloo Reef beginning during the year. There was also an increase in contribution from Australian industry (15%) due to research supporting the oil and gas, and mining industries.

Adoption by users of practices, instruments and processes

- An AIMS-invented methane bubble catcher was loaned to scientific colleagues at Geoscience Australia, for use on their research cruise in the Timor Sea in June 2006.
- The BRUVS approach to fish sampling, refined extensively at AIMS, is being taken up by universities and government departments around Australia. A complementary software tool developed at AIMS to extract and manage data from BRUVS video images is also seen as the preferred approach to BRUVS data acquisition and a training workshop in use of this software was held in Western Australia in May 2006.
- A method for low technology mass culture of coral larvae, developed at AIMS, has been incorporated into targeted research projects supported by the World Bank, to address scientific questions about the role of larval supply in reef restoration and remediation approaches. AIMS has received enquiries about the method's utility for culture of corals and other marine invertebrates from southeast Asia and Europe.
- Three manuals for water quality and "Quick Reference Guides" were developed for community water sampling under the RWQPP Marine Monitoring Programme. These manuals underpin the training of community volunteers to collect and process water samples.
- AIMS' survey techniques for coral reefs have been adopted for the RWQPP Marine Monitoring Programme.



- The industry-led Prawn Domestication Project has produced a large number of broodstock prawns from selectively-bred lines that will now be transferred to industry hatcheries to test their viability at full commercial scale.
- A comprehensive report compiled by AIMS of all sponge aquaculture research undertaken in the Palm Islands was the basis of a commercial application for regulatory approval for sponge farming in the Palm Islands.
- Sponge farming methods developed by AIMS have been adopted in the business plan and engineering design of Australia's first sponge farm at Palm Island and in plans for a small-scale pilot farm at Masig Island.
- AIMS' long-term research from Scott Reef was quoted extensively in the referral to DEH required by the *Enviromental Protection and Biodiversity Conservation Act (1999)* for a proposal to acquire seismic data from this region of the North West Shelf.
- The findings of the AIMS LTMP are specifically identified in one of seven Key Performance Goals used by the GBRMPA in reporting to government and are a major contribution to the *State of the Reef Report* by GBRMPA to the World Heritage Committee of the United Nations Educational, Scientific and Cultural Organisation (UNESCO).

Contribution to Australia's research future through teaching and training

AIMS staff continued their strong affiliation with universities and support for research training of Australia's future scientists. In 2005-06 AIMS staff held 16 adjunct appointments at universities, including James Cook University, the University of Queensland, the University of Western Australia, Central Queensland University and the University of Manitoba.

During the year, AIMS scientists supervised 59 research students and 17 occupational trainees. Many of the latter came from foreign universities and paid their own way to Australia to receive this training. The total student load remained unchanged from the previous year, except for the decrease in the number of extramural students that was balanced by the increase of those supervised in the AIMS workplace. As a result of previous supervision, ten theses were awarded in 2005.

	2003-04	2004-05	2005-06
AIMS staff enrolled in postgraduate studies	9	8	6
Students working at AIMS (Townsville) supervised by AIMS staff	21	24	34
Students working externally supervised by AIMS staff	35	37	25
Occupational trainees (Australia and overseas)	12	17	17

Contracts successfully completed

During the reporting period, AIMS successfully completed 43 contracts and commenced 40 new research contracts. This was an increase compared with the 2004-05 Annual Report (37 and 29 respectively) and was mainly due to transitional arrangements in funding (shift from CRC Reef-funded to MTSRF-funded research) and to new "start up" projects for WAMSI. The Institute provided 93 reports to external contract clients, with the majority being completed within the time specified by the clients. The quality and usefulness of the contracts is reflected in the high percentage of repeat contracts entered into with pre-existing clients.

Policy input

AIMS has continued its engagement at state and federal levels in providing ongoing input to regulatory and policy-making bodies on matters relating to research and development, especially in relation to marine research. A significant contribution was made during the reporting period through membership on independent working groups established to provide input on biodiscovery for the Prime Minister's Science, Engineering and Innovation Council (PMSEIC), and expert input into the NCRIS Strategic Roadmap (for the NCRIS Committee).

AIMS also contributes to the development of policy through the provision of advice and its linkages with decision-making bodies and submission of key reports. Examples of such work include:

- A submission on The Preferred Model for the Research Quality Framework.
- A coordinated marine science submission to the NCRIS as part of the Oceans Policy Science Advisory Group.
- The survey by the Queensland Government on environmental Research and Development providers in Queensland.
- A submission to the PMSEIC working group on biodiscovery.
- A strong presence in departmental committees contributing to the formulation of Australian Government legislation on access to biodiversity for biodiscovery, including: the Genetic Resources Management policy group (within DEH); the Commonwealth Inter-departmental Committee (IDC) on Access to Genetic Resources (CSIRO, Australian Government Department of Agriculture, Fisheries and Forestry (DAFF), DEH, DEST, Australian Government Department of Foreign Affairs and Trade (DFAT), IP Australia, Australian Government Department of the Prime Minister and Cabinet (PM&C)); and the Biodiscovery Working Group of the Biotechnology Liaison Committee (Commonwealth, States, and Territories). As a result, there are good prospects for a nationally consistent approach to Access and Benefit Sharing agreements across jurisdictions.
- Staff participation in national and international meetings on the Convention on Biological Diversity to provide practical examples of how biodiscovery programmes can maximise retention of intellectual property for Australia while promoting international investment.
- Staff were active in a number of expert panels informing governments about climate change. These included (a) the Intergovernmental Panel on Climate Change (IPCC) Working Group 2, Fourth Assessment Report, (b) the Australian Government review of IPCC Working Group 1, Fourth Assessment Report, and (c) the United Nations-Sigma Xi Science Expert Group which contributed to a report on Climate Mitigation and Adaptation Strategies for the United Nations Commission on Sustainable Development (UNCSD).
- Provision of independent science review to a number of management advisory structures influencing fisheries policy in Queensland. Examples include HarvestMAC, Northern Prawn Fishery Management Advisory Committee (NORMAC), ReefMAC and TrawlMAC.

Customer feedback

AIMS recognises that the ultimate test of its success lies in the views of its customers across a broad spectrum. Accordingly, it seeks and responds to customer feedback. There are various channels for feedback, including responses to presentations by AIMS staff and comment during and after VIP and public tours of the Institute. While much of this type of feedback is informal it is predominantly positive. AIMS contracted Insight Economics in June 2006 to provide a retrospective cost-benefit analysis of its science delivery.

This consultancy will include formal feedback from a range of clients and stakeholders; the results will be released in the next quarter.

LICENSING, PATENTING AND SPIN-OFFS

AIMS is committed to effectively managing the outputs generated from its research programme. During the reporting period, this commitment has included, the developing appropriate agreements with external stakeholders, auditing the Intellectual Property (IP) portfolio and improving internal management of AIMS' Intellectual Assets[2].

Intellectual Property Portfolio

A key aspect of AIMS' Intellectual Assets is the AIMS IP portfolio. AIMS manages its IP portfolio in accordance with the AIMS Intellectual Asset Policy which endeavours to optimise the environmental, social, and economic benefits arising from these assets.

As at 30 June 2006, AIMS' IP portfolio contained 60 patents from 7 families spanning a diverse range of technologies and 17 trademarks covering 4 marks, in various jurisdictions.

During the reporting period the AIMS IP portfolio was reduced from 10 families to 7. This reduction arose primarily from the assignment of three patent families to the spin-off entity Cleveland Biosensors Pty Ltd and an IP audit which facilitated the implementation of management improvements. While AIMS did not submit any new patent applications during 2005–06, the Institute expanded its trademarks register to include a mark created for new research initiatives in marine microbiology: MicroBLUE™.

Commercial disclosures

To protect the exchange of confidential information between AIMS and potential research collaborators and partners, AIMS has entered into a number of commercial disclosure arrangements. These include Confidentiality Disclosure Agreements and Material Transfer Agreements which, where appropriate, may be a prelude to the development of commercial arrangements. Increased emphasis on effective management of intellectual assets by public sector organisations[3], coupled with ongoing efforts to undertake research activities in collaboration has resulted in a substantial increase in commercial disclosures during the reporting period to 58 from 14 in 2004-05. These increases arose from greater need for the following types of arrangements:

- Non-Commercial Material Transfer Arrangements which are used to ensure AIMS samples are managed appropriately and to improve collaborative

[2] Intellectual Assets is a broad term encapsulating intangible assets consisting of registered intellectual property rights (including patents, trademarks and registered designs), copyright materials, data-sets, samples, trade-secrets, know-how and expertise.
[3] Australian National Audit Office Report *Intellectual Property Policies & Practices in Commonwealth Agencies* (released February 2004) which resulted in the Draft Whole of Government Intellectual Property Principles prepared by the Attorney General's Department (issued for comment September 2005)

research activities between research organisations by facilitating transfer of AIMS samples to other organisations for non-commercial research activities;
- Confidentiality Disclosures are used to enable open discussions with external parties about potential future arrangements while protecting AIMS' confidential information; and
- Copyright Licenses which facilitate the use of copyright materials owned by the Institute in a variety of applications without divesting ownership. Under such arrangements, AIMS authorises the external party to use the nominated material for a specific purpose.

Commercial arrangements

To undertake marine research and operate its facilities, AIMS enters into a variety of commercial arrangements including Joint Venture Agreements, Research Service Agreements, Research Collaboration Agreements, Commercialisation Agreements (e.g. Licence Agreements), Publishing Agreements and Consulting Service Agreements. During the reporting period, AIMS executed 90 new commercial arrangements, an increase from the previous reporting period (2004-05) during which 53 commercial arrangements were recorded. This increase has arisen from an increased focus on collaborative research effort, an increased emphasis on effective management of intellectual assets by public sector organisations[4] and improvements in internal mechanisms to formalise these arrangements.

Start-up companies

AIMS' three spin-off companies continued to operate and with AIMS assistance have pursued product development in their respective technological fields. These companies are Cleveland Biosensors Pty Ltd (CBPL), a spin-off resulting from AIMS and James Cook University collaborative research in detection of marine toxins in seafood; WetPC™ Pty Ltd, a spin-off to commercialise innovative hand-held interface technologies originally developed for the WetPC™ underwater computer and Kord™ Interface Technology; and Sunscreen Technologies Pty Ltd, a spin-off to commercialise UV blocking compounds.

During the reporting period, AIMS progressed the assignment of three families of patents to CBPL. After several rounds of capital-raising and an equity restructure, AIMS is now a minor shareholder in the company. During the reporting period, the company continued to develop its prototype handheld detection platform testing a range of applications. The drinking water industry is the target for the first product application and the company has developed relationships with key industry players in Europe. Further information may be obtained from CBPL's website (www.clevelandbiosensors.com).

WetPC™ Pty Ltd (WetPC™) has a world-wide exclusive licence from AIMS to commercialise the Kord™ Interface Technology (Kord™ IT) which was originally developed at AIMS to enable divers to control the WetPC™. The company continued to develop key sub-licensing opportunities in the reporting period.

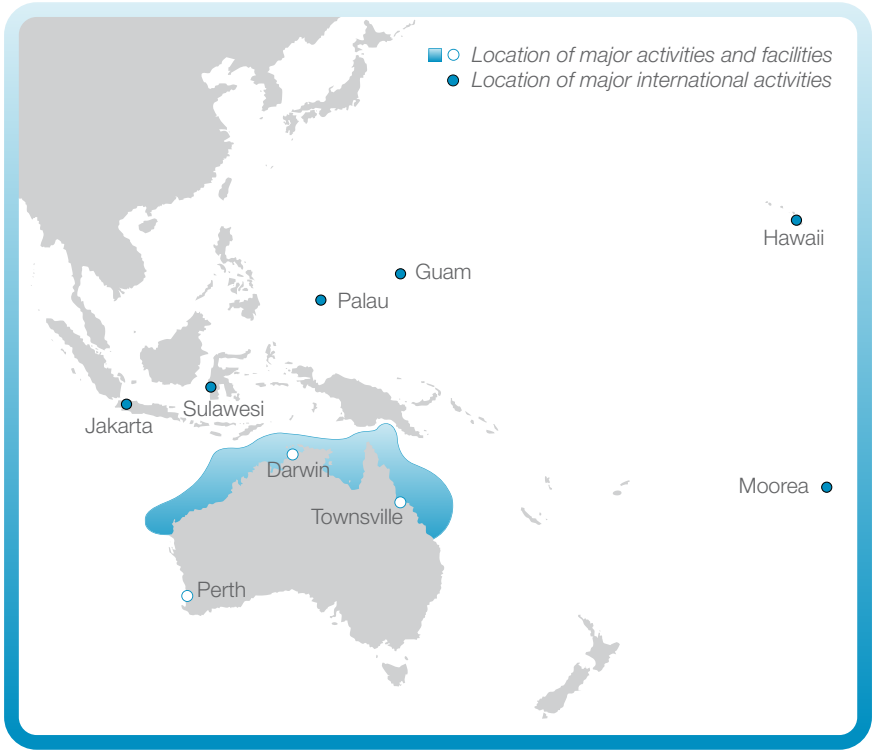
[4] See footnote 3

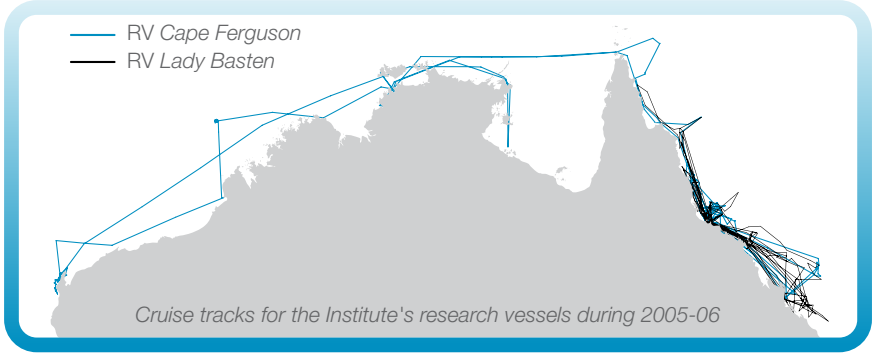
In August 2005, WetPC™ announced its Kord™ IT will be used to control Mine Countermeasure Underwater Computer Systems (MCUCS) being developed for the Royal Australian Navy. In June 2004, the WetPC™ sublicensee Nautronix Pty Ltd won a contract for the supply and support of MCUCS under the Royal Australian Navy minor project SEA1740. Kord™ IT has been chosen to assist Nautronix to deliver the contract. MCUCS units will be progressively delivered to the Royal Australian Navy commencing in 2006. Further information can be obtained from WetPC™'s website (www.wetpc.com.au).

Sunscreen Technologies Pty Ltd has a world-wide exclusive licence from AIMS to commercialise UV blocking compounds discovered serendipitously while undertaking basic/strategic ecological research. During the reporting period, the company has continued to progress field trials in the marine protective coatings industry.

Delicate coral animals are exposed to extreme levels of ultraviolet light but survive by making their own sunscreen.

LOCATION OF MAJOR ACTIVITIES AND FACILITIES





Cruise tracks for the Institute's research vessels during 2005-06

ROLE, LEGISLATION AND MINISTER


Photo: E. Matson

AIMS' role is to carry out research and development in relation to marine science and technology and to encourage and facilitate the application and use of the results of these activities.

The Australian Institute of Marine Science is a Commonwealth statutory authority established by the *Australian Institute of Marine Science Act 1972*. This status was retained following a review by the Minister in response to the *Review of the Corporate Governance of Statutory Authorities and Office Holders*. The *Commonwealth Authorities and Companies Act 1997* sets out reporting, accountability and other rules for AIMS' operations.

The functions and powers of AIMS are set out in Sections 9 and 10 of the Act (see Appendix 1, p 123). During the reporting period the Hon Julie Bishop MP replaced the Hon Dr Brendan Nelson MP as Minister for Education, Science and Training - the Minister with responsibility for AIMS.


Photo: K. Munkres

STAFFING AND STRUCTURE


Photo: S.Clarke

The total number of staff employed by the Institute as at 30 June 2006 was 165 by head count. When taking into account employment status (full-time, part-time and casual) the full-time equivalent (FTE) was 162.3. This represented an increase over 2004-05 (155.6) due to staff employed on projects funded from external sources.

All members of staff are employed under the *Australian Institute of Marine Science Act 1972* (amended 2002).

The following tables provide a breakdown of staff numbers and Equal Employment Opportunity (EEO) status:

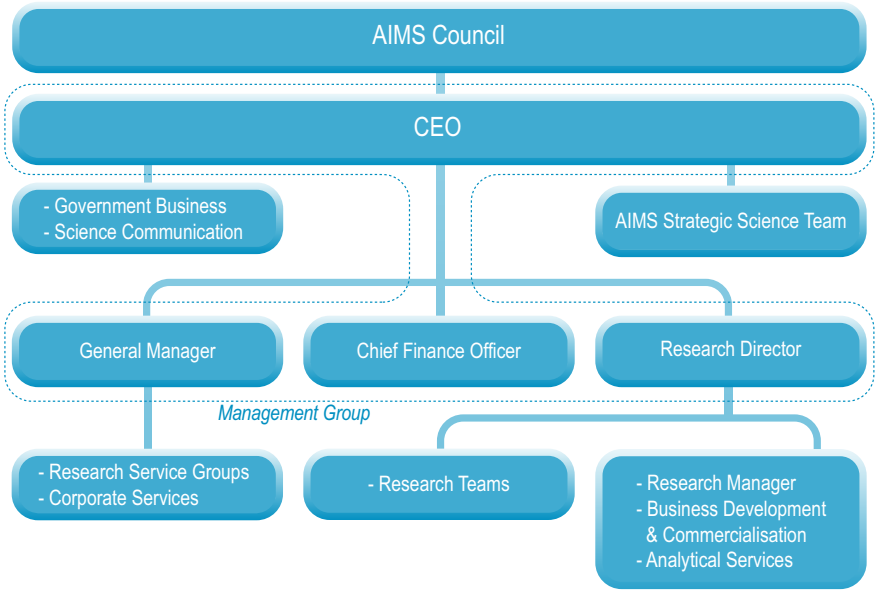
	Female	Male	Total
Research Scientists	7	28	35
Research Projects	25	42	67
Other (Research and Corporate Services)	23	39	63
Total Staff	59	108	165

Aboriginal & Torres Strait Islander	1.22%
Non English speaking Background	9.76%
Staff with Disability	4.88%
Women	33.54%

The work of the research staff is supported by a variety of professional research support staff skilled in data management, commercial services, IP portfolio management, engineering services, field operations, information technology, information services and science communication. Corporate Service Groups deliver financial, human resource, supply and property and general management services to all AIMS Staff.

The Management Group was restructured during the reporting period. It consists of the CEO, the General Manager, the Research Director and the Chief Finance Officer.

ORGANISATIONAL STRUCTURE OF THE INSTITUTE AT 30 JUNE 2006



CORPORATE GOVERNANCE


Photo: S. Spagnol

AIMS has in place a comprehensive system of corporate governance practices designed to provide control, disclosure and accountability for the Institute's activities.

THE MINISTER

The Institute meets its responsibilities to the Australian Government through the Minister for Education, Science and Training, the Hon Julie Bishop MP.

THE COUNCIL

Under the AIMS Act, the Council (or Board) of the Institute comprises a part-time chairperson, the Institute's CEO and five part-time members. One of the members is a James Cook University representative, and this appointment began on 15 December 2005.

Council members are appointed by the Governor General and at least three members must possess scientific qualifications. Appointments can be up to five years and reappointment is permissible. The CEO may hold office for a period not exceeding seven years and is appointed on the recommendation of the Council. The members of Council (see details on following pages) bring complementary skills and experience to governance of the Institute. The Remuneration Tribunal determines the level of remuneration and allowances paid to part-time Board members.

ROLE OF THE COUNCIL

Council sets the Institute's key objectives and research strategies via a three-year research plan. The plan takes into consideration the *National Research Priorities* and stakeholder priorities. Progress against the plan is reported to the Council, on a continuous basis, by the Institute. The Minister is also provided with *ad hoc* advice on developments of significance, as appropriate.

The *Commonwealth Authorities and Companies Act 1997* (CAC Act) requires the Board to comply with certain accountability and corporate governance principles, including:

- the maintenance of the Audit Committee;
- specific financial and reporting provisions;
- disclosure of Board Members' personal interests; and,
- provision of indemnities and indemnity insurance in certain circumstances.

During 2005-06, all CAC Act requirements were met.

AIMS Council: Professor Ned Pankhurst, Mr Nicholas Mathiou, Ms Elizabeth Montano, Professor Peter Høj, Dr Ian Gould, Mr John Grace and Dr Ian Poiner.

Council members

Dr Ian Gould BSc (Hons), PhD (Geology), FAusIMM
Term as Chair: 01/01/2005 – 31/12/2009
Term as Council Member: 01/07/2002 –31/12/2004
Dr Ian Gould brings to AIMS high-level business, research and policy expertise, as well as involvement with environmental matters. He has over 38 years' experience in the minerals industry, mainly with the Rio Tinto group and Normandy Mining Ltd, from which he retired as managing director. He is currently Chair of: the Australian Centre for Minerals Extension and Research; St Andrews Hospital; Australian Biological Resources Study Advisory Committee; CSIRO Minerals and Energy Sector Advisory Committee; and Toro Energy Ltd.

Dr Gould is also a director of the Australasian Institute of Mining and Metallurgy, President of the Royal Flying Doctor Service (Central Operations), a member of the South Australia National Parks and Wildlife Council, the South Australia Resources Industry Development Board and a non-executive director of Abra Mining Ltd.

Mr John Grace BSc (Applied Chemistry), FTSE, FAICD
Term as Council Member: 16/12/2004 – 15/12/2009
Mr Grace has worked for 36 years in the biotechnology industry, 20 years of which he was a CEO. He has applied this experience in organisations ranging from Burns Philp to CSIRO and AMRAD. In the latter company, he served as managing director for 11 years. Mr Grace is an experienced director of listed and private companies. He operates a consulting business in biotechnology, iBIO Pty Ltd.

He is currently Chairman of BodyFlow International Pty Ltd and a member of the Council of the Academy of Technological Sciences and Engineering. Mr Grace is a past member of the Australian Research Council. He was formerly a member of the Victorian Premier's *Knowledge Innovation Science and Engineering Task Force,* a member of the Industry Research and Development Board and President/ Director of the Australian Biotechnology Association.

Professor Peter Høj MSc, PhD (Copenhagen), FTSE
Term as Council Member: 01/01/2005 – 31/12/2009
Professor Høj is CEO of the Australian Research Council and a fellow of the Australian Academy of Technological Sciences and Engineering. From 1999-2004, he was a private member of the Prime Minister's Science, Engineering and Innovation Council (PMSEIC). Before his appointment to the ARC, he was Managing Director of the Australian Wine Research Institute. Professor Høj was educated at the University of Copenhagen, majoring in biochemistry and chemistry. He has a Master of Science Degree in biochemistry and genetics and a PhD in photosynthesis. Since arriving in Australia in 1987 he has worked as a lecturer and senior lecturer in biochemistry at La Trobe University and as professor of Viticultural Science and Oenology at the University of Adelaide. Professor Høj has been a board member of several research-related entities.

Ms Elizabeth Montano BA LLB
Term as Council Member: 16/12/2004 – 15/12/2009
Ms Montano has worked in senior positions in both the private and public sectors for over 20 years. She holds various non-executive positions, including Strategic Adviser to the Chief Federal Magistrate, Federal Magistrates Court of Australia, independent member of the Executive Management Board of the Australian Federal Police and independent member of its Security and Audit Committee, member of the Council and Audit Committee of AIMS and member of the Advisory Committee of the Transnational Crime Centre at the University of Wollongong.

She was formerly Director (CEO) of the Australian Transaction Reports and Analysis Centre (AUSTRAC), Australia's anti-money laundering regulator and financial intelligence unit; Head of Australia's Delegation to the Organisation for Economic Co-operation and Development (OECD) based Financial Action Task Force on Money Laundering; a member of the board of CrimTrac; a member of the Heads of Commonwealth Operational Law Enforcement Agencies group (HOCOLEA); chairman of various HOCOLEA groups, including the Action Group on the Law Enforcement Implications of Electronic Commerce; the director responsible for corporate and fundraising regulatory policy with the Australian Securities Commission (now the Australian Securities and Investments Commission) and a senior banking and finance consultant and solicitor with Mallesons Stephen Jaques.

Mr Nicholas Mathiou BCom (Hons), LLB, MMktg
Term as Council Member: 01/09/2005 – 31/08/2010
Mr Mathiou has 18 years of professional investment, transaction and corporate advisory experience with particular emphasis on private equity investment in emerging enterprises. He is a co-founder and Executive Director of Investment Capital Partners (ICP), a private equity investment and corporate advisory firm. Before joining ICP, Mr Mathiou was a co-founder, Finance Director and Company Secretary of Medica Holdings Limited (MCA), an Australian Stock Exchange (ASX) listed company specialising in venture capital investment in biomedical ventures. He was jointly responsible for all investment and divestment decisions, as well as the strategic direction of Medica. He also held senior non-executive positions in portfolio companies.

Before co-founding Medica, Mr Mathiou advised senior management and boards of directors of a large number of corporations on acquisition and investment appraisals; corporate funding and implementation; business valuations; strategic and business planning; commercialisation strategies and planning; and business process re-engineering in executive roles with Invetech (Business Strategy and Technology Group) and Coopers & Lybrand (Corporate Services Division).

He is a fellow of the Financial Services Institute of Australasia, a barrister of the Supreme Court of Queensland, a barrister and solicitor of the Supreme Court of Victoria, a member of Chartered Secretaries Australia and an associate member of the Australian Society of Certified Practising Accountants (ASA).

Professor Ned Pankhurst BSc (Hons), PhD (Zoology), DSc (Zoology)
Term as Council Member: 15/12/2005 – 16/06/2006
Professor Ned Pankhurst has worked in the tertiary education and research sector for 25 years, with the University of Alberta, New Zealand Fisheries Research, the University of Auckland, the University of Tasmania and most recently James Cook University where he is currently Pro-Vice Chancellor of Science, Engineering and Information Technology.

His research experience covers various areas of marine fisheries research, aquaculture, natural biology and physiology of fishes, and includes both temperate and tropical reef species. This research portfolio spans the range from pure basic to highly applied industry-sponsored research and has involved close liaison with both university and non-university research and development providers and a range of industry partners. Management and leadership roles, in addition to direction of the Faculty of Science, Engineering and Information Technology and membership of the Senior Management Group at James Cook University, include past membership of CRC for Aquaculture and Aquafin CRC Management Advisory Committees, alternate board member for CRC Torres Strait, establishment board of the Tasmanian Aquaculture and Fisheries Institute, James Cook University-CSIRO Tropical Landscapes Joint Venture Board, Board of the Australian Tropical Forest Institute Pty Inc., Australian Tropical Herbarium Board, QDPI&F-James Cook University Research MoU Management Steering Committee and the AIMS@JCU Board.

Dr Ian R. Poiner BSc (Hon), PhD
Term as Council Member: 12/07/2004 – 11/07/2009
Dr Ian Poiner is the Chief Executive Officer of the Australian Institute of Marine Science. Dr Poiner has significant experience in strategic development and planning of science, both as a practicing scientist and at the organisational level. This is reflected in his successful large-scale, multi-disciplinary research projects and his establishment of national and international research programs to support the sustainable use, conservation and management of marine ecosystems. Dr Poiner's scientific background is research into tropical fisheries and ecological systems, including in Australia's northern Great Barrier Reef, Torres Strait and the Gulf of Carpentaria. He has also worked in Jamaica, Papua New Guinea and Southeast Asia. Dr Poiner serves on a number of national and international committees. He is currently Vice-Chair of the International Scientific Steering Committee of the Census of Marine Life, a ten year international research program to assess and explain the diversity, distribution and abundance of marine organisms throughout the world's oceans. As CEO of AIMS, he is responsible for managing the day-to-day affairs of the Institute.

Council attendance

	5-6 Sept 2005 Canberra	28-29 Nov 2005 Townsville	27-28 Feb 2006 Townsville	15-16 June 2006 Townsville
Dr Ian Gould (Chair)	✓	✓	✓	✓
Mr John Grace	✓	✓	✓	✓
Prof Peter Høj	✓	✓	apology	✓
Ms Elizabeth Montano	✓	✓	✓	✓
Mr Nicholas Mathiou	✓	✓	✓	✓
Prof Ned Pankhurst	not appointed	not appointed	✓	✓
Dr Ian Poiner	✓	✓	✓	✓

Professor Ned Pankhurst resigned as the James Cook University nominated representative from the Council on 16 June 2006.

AUDIT AND FINANCE COMMITTEE

Audit Committee

The Audit Committee is a formal sub-committee of the Council and meets quarterly or as required. The Audit Committee comprised during the year Roy Peterson (Chair), Nicholas Mathiou, Elizabeth Montano and Ian Gould. The Chief Executive Officer, the Chief Finance Officer and representatives of the ANAO and Internal Audit attend all meetings, or relevant parts of all meetings, by invitation.

In accordance with best practice, all Council members receive copies of Audit Committee agendas and meeting minutes, and can attend meetings as a right.

The Audit Committee responsibility is to provide independent assurance and assistance to Council in the following areas:

- Financial risk management
- Control framework
- External accountability
- Legislative compliance
- Internal audit
- External audit

Audit Committee attendance

Member	Held	Attended
Mr Roy Peterson (Chair) – external member	4	4
Mr Nicholas Mathiou (Council member)	4	3
Ms Elizabeth Montano (Council member)	4	4
Dr Ian Gould (Council member)	4	2
Invitees		
Dr Ian Poiner (Chief Executive Officer)	4	4
Mr John Zabala (Internal auditor)	4	4
Mr Vic Bayer (Chief Finance Officer)	4	4
Ms P Dash (Australian National Audit Office)	4	4

Mr Nicholas Mathiou was appointed to the Audit Committee on 6 September 2005 in time for the second meeting. Dr Ian Gould retired from the Audit Committee on 18 November 2005 after the second meeting.

FRAUD CONTROL

The Institute has an established fraud control policy and plan and has complied with fraud control guidelines set out by the Attorney-General's Department, Criminal Justice Division.

FINANCIAL RISK MANAGEMENT FRAMEWORK

The Audit Committee has responsibility for the review of the implementation and the development of the Institute's financial risk management framework. The Council is responsible for review of the risk management framework for strategic, commercial, operational and compliance risks.

INDEPENDENT PROFESSIONAL ADVICE

The Council has the right to obtain, at the Institute's expense, relevant independent professional advice in connection with the discharge of its responsibilities.

DIRECTORS' INTERESTS

Section 27 of the CAC Act provides for the disclosure of material personal interests in a matter that is being considered by the Council and prohibits participation, deliberation and decision-making by any member on such matters, unless so resolved by the Council or entitled by the Minister. Details of such disclosure are recorded in the minutes of the meeting. All of these requirements are currently being met.

INTERNAL AUDIT

The Audit Committee approves the annual internal audit plan and receives regular reports on progress against the plan. The internal audit function is performed by BSD Pickards Associates. The Internal Auditor is responsible for providing an independent risk review function in accordance with the annual plan.

EXTERNAL AUDIT

Under the CAC Act, the Commonwealth Auditor-General, through the Australian National Audit Office, is the external auditor for AIMS.

The Audit Committee reviews the ANAO audit plan and reports and meets with ANAO representatives before recommending to the Council that the annual financial statements be accepted and the Statement by Council be signed.

INDEMNITIES AND INSURANCE PREMIUMS FOR OFFICERS

There were no liabilities to any current or former officers. During the reporting period, no premium was paid (or was agreed to be paid) against a current or former officers' liability for legal costs. AIMS paid premiums for the insurances required under the CAC Act for Directors and Officers.

STAFF CONSULTATION

Staff consultation and communication took place via a range of mediums such as all-staff meetings, emails and the Institute's internal newsletter 'Scoop'. The Joint Consultative Committee met six times in 2005-06. This committee provides a forum for discussion and consultation between management and staff representatives. In addition a staff/union negotiation team met with the Institute's management to develop a new three-year Collective Agreement, effective from July 2006.

CONSULTANCY ADVICE

AIMS frequently seeks independent advice from consultants. During 2005-06, the Institute awarded consultancies to:

- Insight Economics Pty Ltd (to assess the economic impacts associated with AIMS since inception);
- Technology One Pty Ltd (to review the functionality in use in financial management information system software); and
- Alphawest Services Pty Ltd (to review Hummingbird software for registry).

SUB-CONTRACTORS

Sub-contractors are selected on the basis of quality, value for money and availability. Tenders are required for services or products with a value greater than $60,000. The Tender Board must approve exemptions from public tendering in writing. Consistent with Section 21 of the CAC Act, Council members and staff cannot be involved in decision-making about sub-contractors connected to them or to an immediate family member.

PUBLIC ACCOUNTABILITY


Photo: D. McKinnon

MINISTERIAL DIRECTIONS

The Minister for Education, Science and Training did not issue any directions under the AIMS Act.

JUDICIAL DECISIONS AND REVIEWS BY OUTSIDE BODIES

No judicial decisions related to AIMS and no reviews of AIMS by outside bodies occurred during the reporting period. AIMS-initiated external review of research quality was conducted and is reported earlier in the Report of Operations (External Assessment and Review, p 47).

OMBUDSMAN

No issues relating to AIMS were referred to the Commonwealth Ombudsman.

INVESTING AND FINANCING ACTIVITIES

The Institute invested its surplus money in accordance with Section 18(3) of the CAC Act. The investments were deposited with three banks in accordance with AIMS' policy on investments.

OCCUPATIONAL HEALTH AND SAFETY

The Institute endeavours to maintain a workplace that is, as far as reasonably practicable, safe and healthy for staff and visitors, considering the complexities and range of hazards and risks undertaken in its research activities and supporting functions.

During 2005-06, the Occupational Health and Safety (OH&S) culture and function within the Institute were strengthened by:

1. New updated or draft OH&S related policies on:
   i) Working Alone;
   ii) Teleworking; and
   iii) Smoking.
2. AIMS staff continues to receive training in Safety Awareness, Hazard and Risk Management, First Aid, Dive Safety and Chemical Information systems (Chemwatch).
3. AIMS has recently been accepted as a member of Australasian Universities Safety Association. This membership will give the Institute greater access to the network of OH&S professionals servicing the tertiary education and research sector of Australasia.

Incidents

The Institute reported three incidents to Comcare under the requirements of Section 68 of the *Occupational Health and Safety (Commonwealth Employment) Act 1991* (OH&S Act). These incidents have been thoroughly investigated to ensure appropriate corrective and preventative actions have been put in place.

The overall trend in reported incidents showed a 20% decrease over the previous year. The number of days lost as a result of injuries sustained in the workplace totalled one.

During this period Comcare conducted one formal investigation, under Section 29 of the OH&S Act. A subsequent report provided several recommendations, all of which have been implemented. AIMS received no notices or other directions from Comcare.

RADIATION SAFETY

The Institute continues to hold a Source Licence from the Australian Radiation Protection and Nuclear Safety Agency. The provision of this Source Licence has requirements for quarterly reporting, which have been met. Training connections with local Source Licence holders continue to ensure staff and visitors are adequately trained for the use of ionising and non-ionising radiation.

GENE TECHNOLOGY

All proposed research projects were assessed by the Institute's Biosafety Committee and deemed to fall under the 'Exempt' category.

ENVIRONMENT

The Department of the Environment and Heritage continues to advise the Institute on the implementation of its Environment Management Plan (EMP) and development of its Environment Management System. The Environment Committee, made up of both research and research services staff, is overseeing the implementation of the EMP.

The Institute uses a number of substances declared under the *National Pollution Inventory of the National Environment Protection Measures Act,* in quantities below the current declared threshold levels and has met the reporting requirements.

EEO AND WORKPLACE DIVERSITY

In accord with its policy on this issue, the Institute acknowledges differences and adapts work practices to create an inclusive work environment in which diverse skills, perspectives and cultural backgrounds are valued.

HARASSMENT

Staff must comply with Division 4 of the CAC Act and sections of the Terms and Conditions of Service. Council members also abide by the *Code of Conduct for Directors* published by the Australian Institute of Company Directors.

AIMS has trained Workplace Harassment Contact Officers (WHCOs) across the Institute. Their role is to be available to discuss, in confidence, matters of concern relating to harassment and associated issues raised by a staff member. Staff have undertaken harassment awareness training and new staff are provided with this information as part of the induction process.

In 2005-06 the Institute had no formally reported cases of harassment. The Workplace Harassment Contact Officers gave advice on a number of occasions and some staff were also referred to the AIMS Employee Assistance Service for counselling. The WHCOs attended a 'refresher' session as a means to update and support them in their role.

DISABILITY STRATEGY

The Institute is committed to ensuring people with disabilities are given opportunities for independence, access and full participation. The Institute assesses cases individually and endeavours to implement the most appropriate measures to assist people with disabilities.

All vacancies placed in the print media and on the AIMS website clearly state that the Institute is an equal opportunity employer.

The physical resources of AIMS continue to be upgraded to meet access needs for people with disabilities, including provision for the disabled in the construction of new facilities such as the new AIMS@JCU Controlled Environment Facility.

ETHICAL CONDUCT

The Institute has a Code of Conduct to which the Council, management and staff are required to adhere. The Code complies with Division 4 of the CAC Act and includes relevant sections of the Terms and Conditions of Service. New Council members and staff are briefed on the Code during induction. Council members also abide by the *Code of Conduct for Directors* published by the Australian Institute of Company Directors.

EMPLOYEE ASSISTANCE PROGRAMME

The OSA Group continues to provide the Institute with its employee assistance programme. Approximately 12% of staff accessed the counselling service in the past year, a slight increase on prior years (5%) possibly due to increased awareness of the programme, which staff have been using steadily over the past five years. Long-term visitors to the Institute, particularly if they are from interstate or overseas, are encouraged to use the service, should they feel the need for assistance.

FREEDOM OF INFORMATION

No requests were received in 2005-06 under the provisions of the *Freedom of Information Act 1982*. The statement required under Section 8 of the FOI Act, setting out documents available for inspection, is at Appendix 4.

Freedom of Information Statement

The *Freedom of Information Act 1982* (FOI Act) requires each Australian Government agency to publish a statement setting out its role, structure and functions; the documents to be made available for public inspection and access. Section 8 of the FOI Act requires each agency to publish information on the way it is organised, its powers, decisions made and arrangements for public involvement in its work.

This statement, in conjunction with information contained in this annual report, is intended to meet the requirements of Section 8 of the FOI Act.

CUSTOMER SERVICE CHARTER

The AIMS Service Charter for dealing with clients is posted on our website. The Institute welcomes feedback on how well it is delivering services against the standards set in this charter, and has included a feedback form on the website. Both the charter and the feedback form may be found at www.aims.gov.au/pages/about/corporate/csc-01.html

Auditor General's Report

- Independent Audit Report

Australian National
Audit Office

INDEPENDENT AUDIT REPORT

To the Minister for Education, Science and Training

Matters relating to the Electronic Presentation of the Audited Financial Statements

This audit report relates to the financial statements published in both the annual report and on the website of the Australian Institute of Marine Science for the year ended 30 June 2006. The Directors of the Australian Institute of Marine Science are responsible for the integrity of both the annual report and the web site.

The audit report refers only to the financial statements, schedules and notes named below. It does not provide an opinion on any other information which may have been hyperlinked to/from the audited financial statements.

If the users of this report are concerned with the inherent risks arising from electronic data communications they are advised to refer to the hard copy of the audited financial statements in the Australian Institute of Marine Science's annual report.

Scope

The financial statements and Directors' responsibility

The financial statements comprise:

- Statement by Directors (Members of Council) and Chief Executive;
- Income Statement, Balance Sheet and Statement of Cash Flows;
- Statement of Changes in Equity;
- Schedule of Commitments; and
- Notes to and forming part of the Financial Statements

of the Australian Institute of Marine Science for the year ended 30 June 2006.

GPO Box 707 CANBERRA ACT 2601
Centenary House 19 National Circuit
BARTON ACT
Phone (02) 6203 7300 Fax (02) 6203 7777

The Directors of the Australian Institute of Marine Science are responsible for preparing the financial statements that give a true and fair view of the financial position and performance of the Australian Institute of Marine Science, and that comply with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, Accounting Standards and mandatory financial reporting requirements in Australia. The Directors of the Australian Institute of Marine Science are also responsible for the maintenance of adequate accounting records and internal controls that are designed to prevent and detect fraud and error, and for the accounting policies and accounting estimates inherent in the financial statements.

Audit Approach

I have conducted an independent audit of the financial statements in order to express an opinion on them to you. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing and Assurance Standards, in order to provide reasonable assurance as to whether the financial statements are free of material misstatement. The nature of an audit is influenced by factors such as the use of professional judgement, selective testing, the inherent limitations of internal control, and the availability of persuasive, rather than conclusive, evidence. Therefore, an audit cannot guarantee that all material misstatements have been detected.

While the effectiveness of management's internal controls over financial reporting was considered when determining the nature and extent of audit procedures, the audit was not designed to provide assurance on internal controls.

I have performed procedures to assess whether, in all material respects, the financial statements present fairly, in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*, Accounting Standards and other mandatory financial reporting requirements in Australia, a view which is consistent with my understanding of the Australian Institute of Marine Science's financial position, and of its financial performance and cash flows.

The audit opinion is formed on the basis of these procedures, which included:

- examining, on a test basis, information to provide evidence supporting the amounts and disclosures in the financial statements; and
- assessing the appropriateness of the accounting policies and disclosures used, and the reasonableness of significant accounting estimates made by the Directors of the Australian Institute of Marine Science.

Independence

In conducting the audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the ethical requirements of the Australian accounting profession.

Audit Opinion

In my opinion, the financial statements of the Australian Institute of Marine Science:

(a) have been prepared in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997;* and

(b) give a true and fair view of the Australian Institute of Marine Science's financial position as at 30 June 2006 and of its performance and cash flows for the year then ended, in accordance with:

(i) the matters required by the Finance Minister's Orders; and

(ii) applicable Accounting Standards and other mandatory financial reporting requirements in Australia.

Australian National Audit Office

Puspa Dash

Puspa Dash

Senior Directo

Delegate of the Auditor-General

Canberra
28 August 2006

Financial Statements

- Statement by Directors and Chief Executive
- Income Statement for the year ended 30 June 2006
- Balance Sheet as at 30 June 2006
- Statement of Cash Flows for the year ended 30 June 2006
- Statement of Changes in Equity for the year ended 30 June 2006
- Schedule of Commitments as at 30 June 2006
- Notes to and Forming Part of the Financial Statements
- Supplementary Financial Information (unaudited) for the year ended 30 June 2006

AUSTRALIAN INSTITUTE OF MARINE SCIENCE

STATEMENT BY DIRECTORS (MEMBERS OF COUNCIL) AND CHIEF EXECUTIVE

In our opinion, the attached financial statements for the year ended 30 June 2006 give a true and fair view of the matters required by the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997*.

In our opinion, at the date of this statement, there are reasonable grounds to believe that the Institute will be able to pay its debts as and when they become due and payable.

This Statement is made in accordance with a resolution of the Directors.

Dr Ian Gould
Chairman of Council
28 August 2006

Dr Ian Poiner
Chief Executive Officer
28 August 2006

INCOME STATEMENT

for the year ended 30 June 2006

	Notes	2006 $'000	2005 $'000
INCOME			
Revenue			
Revenues from Government	4A	**23,125**	22,483
Goods and services	4B	**8,228**	5,689
Interest	4C	**1,060**	985
Revenues from joint ventures	4D	**996**	2,696
Other revenues	4E	**167**	109
Total Revenues		**33,576**	31,962
Gains			
Net gain from disposal of plant & equipment	4F	**-**	50
TOTAL INCOME		**33,576**	32,012
EXPENSES			
Employees	5A	**14,931**	13,583
Suppliers	5B	**11,736**	11,210
Depreciation and amortisation	1.14/5C	**2,949**	4,994
Expenditures on joint ventures	5D	**294**	229
Interest	5E	**104**	-
Write down and impairment of assets	5F	**262**	140
Net loss from disposal of plant & equipment	5G	**128**	-
TOTAL EXPENSES		**30,404**	30,156
OPERATING RESULT		**3,172**	1,856

The above statement should be read in conjunction with the accompanying notes.

BALANCE SHEET

as at 30 June 2006

	Notes	2006 $'000	2005 $'000
ASSETS			
Financial assets			
Cash and cash equivalents	6A	**229**	189
Investments under S18 of the CAC Act	6B	**18,495**	16,246
Receivables	6C	**3,537**	1,302
Total financial assets		**22,261**	17,737
Non-Financial Assets			
Buildings and improvements	7A	**49,105**	29,717
Plant and equipment	7B	**16,694**	17,930
Intangibles	7C	**301**	219
Inventories	7D	**239**	220
Other	7E	**288**	810
Total non-financial assets		**66,627**	48,896
TOTAL ASSETS		**88,888**	66,633
LIABILITIES			
Payables			
Suppliers	8A	**4,197**	1,316
Other payables	8B	**3,119**	4,255
Total payables		**7,316**	5,571
Provisions			
Employee provisions	9	**6,839**	6,199
Total provisions		**6,839**	6,199
TOTAL LIABILITIES		**14,155**	11,770
NET ASSETS		**74,733**	54,863
EQUITY			
Contributed equity		**31,607**	31,607
Reserves		**34,375**	17,677
Retained surpluses		**8,751**	5,579
TOTAL EQUITY		**74,733**	54,863
Current assets		**21,768**	16,750
Non-current assets		**67,120**	49,883
Current liabilities		**12,533**	9,710
Non-current liabilities		**1,622**	2,060

The above statement should be read in conjunction with the accompanying notes.

STATEMENT OF CASH FLOWS

for the year ended 30 June 2006

	Notes	2006 $'000	2005 $'000
OPERATING ACTIVITIES			
Cash received			
Appropriations		**23,125**	22,483
Goods and services		**6,912**	8,042
Interest		**985**	1,126
GST recovered from Australian Taxation Office		**440**	1,116
Receipt from joint ventures		**996**	2,696
Other		**167**	110
Total cash received		**32,625**	35,573
Cash used			
Payments to joint ventures		**1,467**	1,172
Employees		**14,287**	13,294
Suppliers		**9,813**	14,501
Interest		**104**	-
Total cash used		**25,671**	**28,967**
Net cash from operating activities	10B	**6,954**	6,606
INVESTING ACTIVITIES			
Cash received			
Proceeds from sale of property, plant and equipment		**559**	464
Total cash received		**559**	464
Cash used			
Purchase of property, plant and equipment	7F	**5,224**	7,642
Total cash used		**5,224**	7,642
Net cash used by investing activities		**(4,665)**	(7,178)
Net increase or (decrease) in cash held		**2,289**	(572)
Cash at the beginning of the reporting period		**16,435**	17,007
Cash at the end of the reporting period	10A	**18,724**	16,435

The above statement should be read in conjunction with the accompanying notes.

STATEMENT of CHANGES in EQUITY

for the year ended 30 June 2006

	Accumulated Results		Asset Revaluation Reserve		Contributed Equity		Total Equity	
	2006	2005	**2006**	2005	**2006**	2005	**2006**	2005
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Opening balance	**5,579**	3,723	**17,677**	17,677	**31,607**	31,607	**54,862**	53,007
Revaluation adjustment	-	-	**16,698**	-	-	-	**16,698**	-
Net operating result	**3,172**	1,856	-	-	-	-	**3,172**	1,856
Closing balance as at 30 June	**8,751**	5,579	**34,375**	17,677	**31,607**	31,607	**74,733**	54,863

The above statement should be read in conjunction with the accompanying notes.

SCHEDULE OF COMMITMENTS

as at 30 June 2006

	2006 $'000	2005 $'000
By Type		
Capital Commitments		
Buildings and Improvements	**309**	206
Plant and equipment	**463**	589
Total capital commitments	**772**	795
Other Commitments		
Operating leases [1]	**109**	230
Other [2]	**6,966**	12,488
Total other commitments	**7,075**	12,718
Commitments receivable	**-**	(1,142)
Net commitments by Type	**7,847**	12,371
By Maturity		
Capital commitments		
One year or less	**772**	795
From one to five years	**-**	-
Total capital commitments	**772**	795
Operating lease commitments		
One year or less	**75**	141
From one to five years	**33**	89
Total operating lease commitments	**108**	230
Other commitments		
One year or less	**3,349**	7,292
From one to five years	**3,618**	5,196
Total other commitments	**6,967**	12,488
Commitments receivable	**-**	(1,142)
Net Commitments by Maturity	**7,847**	12,371

Commitments are GST inclusive where relevant

[1] Operating leases included are effectively non-cancellable and comprise:
Nature of lease : General description of leasing arrangement
Motor Vehicle : Leases are for a period of 18 months or 40,000 kilometres
No contingent rentals exist

[2] As at 30 June 2006 other commitments comprise amounts payable for various operating expenditure

The above statement should be read in conjunction with the accompanying notes.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTE 1: SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

1.1 Objectives of Australian Institute of Marine Science

The objective of the Australian Institute of Marine Science (the Institute) is the protection and sustainable development of Australia's marine resources.

The Institute is structured to meet one outcome:

"Enhanced scientific knowledge supporting the protection and sustainability of Australia's marine resources."

The financial statements are required by clause 1(b) of Schedule 1 to the *Commonwealth Authorities and Companies Act 1997* and are a general purpose financial report.

The continued existence of the Institute in its present form and with its present programs is dependent on Government policy and on continuing appropriations by Parliament for the Institute's administration and programs.

1.2 Basis of Accounting

The statements have been prepared in accordance with:

- Finance Minister's Orders (or FMOs, being the *Commonwealth Companies Orders (Financial Statements for reporting periods ending on or after 01 July 2005*));
- Australian Accounting Standards issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period; and
- Interpretations issued by the AASB and Urgent Issues Group that apply for the reporting period.

This is the first financial report to be prepared under the Australian Equivalents to International Financial Reporting Standards (AEIFRS). The impact of adopting AEIFRS are disclosed in Note 2.

The Income Statement, Balance Sheet and Statement of Changes in Equity have been prepared on an accrual basis and are in accordance with historical cost convention, except for certain assets, which, as noted, are at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial report is presented in Australian dollars and values are rounded to the nearest thousand dollars unless disclosure of the full amount is specifically required.

Assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under agreements equally proportionately unperformed are not recognised unless required by an Accounting Standard. Liabilities and assets that are unrecognised are reported in the Schedule of Commitments and the contingent liabilities and asset note (other than unquantifiable or remote contingencies).

Revenues and expenses are recognised in the Income Statement when and only when the flow or consumption or loss of economic benefits has occurred and can be reliably measured.

1.3 Statement of Compliance

The financial report complies with Australian Accounting Standards, which include Australian Equivalents to International Financial Reporting Standards (AEIFRS).

Australian Accounting Standards require the Institute to disclose Australian Accounting Standards that have not been applied, for standards that have been issued but are not yet effective.

The AASB has issued amendments to existing standards, these amendments are denoted by year and then number, for example 2005-1 indicates amendment 1 issued in 2005.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

Title	Standard affected	Application date*	Nature of impending change	Impact expected on financial report
2005-1	*AASB 139*	1 Jan 2006	Amends hedging requirements for foreign currency risk of a highly probable intra-group transaction.	No expected impact
2005-4	*AASB 139, AASB 132, AASB 1, AASB 1023 and AASB 1038*	1 Jan 2006	Amends AASB 139, AASB 1023 and AASB 1038 to restrict the option to fair value through profit or loss and makes consequential amendments to AASB 1 and AASB 132	No expected impact
2005-5	AASB 1 and AASB 139	1 Jan 2006	Amends AASB 1 to allow an entity to determine whether an arrangement is, or contains, a lease. Amends AASB 139 to scope out a contractual right to receive reimbursement (in accordance with AASB 137) in the form of cash.	No expected impact
2005-6	AASB 3	1 Jan 2006	Amends the scope to exclude business combinations involving entities or businesses under common control.	No expected impact
2005-9	AASB 4, AASB 1023, AASB 139 and AASB 132	1 Jan 2006	Amended standards in regards to financial guarantee contracts.	No expected impact
2005-10	AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 and AASB 1038	1 Jan 2007	Amended requirements subsequent to the issuing of AASB 7.	No expected impact
2006-1	AASB 121	31 Dec 2006	Changes in requirements for net investments in foreign subsidiaries depending on denominated currency.	No expected impact
	AASB7 Financial Instruments: Disclosures	1 Jan 2007	Revise the disclosure requirements for financial instruments from AASB132 requirements.	No expected impact, changes disclosure requirements

* Application date is for annual reporting periods beginning on or after the date shown

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.4 Revenue

Revenues from Government

Amounts appropriated for Departmental outputs appropriations for the year (adjusted for any formal additions and reductions) are recognised as revenue, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned.

Appropriations receivable are recognised at their nominal amounts.

Other Revenue

Revenue from the sale of goods is recognised when:

- The risks and rewards of ownership have been transferred to the buyer;
- The seller retains no managerial involvement nor effective control over the goods;
- The revenue and transaction costs incurred for the transaction can be reliably measured; and
- It is probable that the economic benefits associated with the transaction will flow to the entity.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- The amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- The probable economic benefits with the transaction have flowed to the entity.

Receivables for goods and services are recognised at the nominal amounts due less any provision for bad and doubtful debts. Collectability of debts is reviewed at balance date. Provisions are made when collectability of the debt is no longer probable.

Interest revenue is recognised using the effective interest method as set out in AASB 139.

Gains

Revenue from disposal of non-current assets is recognised when control of the asset has passed to the buyer.

Gains and losses are due to impairment, dercognition and amortisation are recognised through the Income Statement.

1.5 Transactions with the Government as Owner

Equity injections

Amounts appropriated which are designated as 'equity injections' for a year (less any savings offered up in Portfolio Additional Estimates Statements) are recognised directly in Contributed Equity in that year. The Institute had no such injections during the year.

Restructuring of Administrative Arrangements

Net assets received from or relinquished to another Commonwealth agency or authority under a restructuring of administrative arrangements are adjusted at their book value directly against contributed equity. The Institute was not involved in a restructuring of administrative arrangement during the year.

Other distributions to owners

The FMOs require that distributions to owners be debited to contributed equity unless in the nature of a dividend. In 2005-06, by agreement with Finance, the Institute did not relinquish control of any surplus output appropriation funding.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.6 Liabilities for Employee Benefits

As required by the FMOs, the Institute has early adopted AASB 119 Employee Benefits as issued in December 2004 services rendered by employees are recognised at the reporting date to the extent that they have not been settled.Liabilities for short-term employee benefits (ie. wages and salaries, annual leave, termination benefits etc, expected to be settled within 12 months of the reporting date) are measured at their nominal amounts.

The portion of the liability for annual leave which is not expected to be settled within 12 months of the reporting date is recognised and measured at the present value of the estimated future cash flows at 30 June 2006. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

All other employee benefit liabilities are measured as the present value of the estimated future cash outflows to be made in respect of services provided by employees up to the reporting date.

Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of the Institute is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration, including the Institute's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The non current portion of the liability for long service leave is recognised and measured at the present value of the estimated future cash flows to be made in respect of all employees at 30 June 2006. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Superannuation

Institute's staff are members of the Commonwealth Superannuation Scheme (CSS) and the Public Sector Superannuation Scheme (PSS). The liability for their superannuation benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course.

The Institute makes employer contributions to the Australian Government at rates determined by an actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of the Institute's employees.

New employees (from 1 July 2005) are eligible to join the new PSS Accumulation Scheme which is a defined contribution scheme.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

1.7 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased non-current assets. In operating leases, the lessor effectively retains substantially all such risks and benefits.

Operating lease payments are expensed on a straight line basis unless another systematic approach is more representative of the pattern of benefits derived from the leased assets.

The net present value of future net outlays in respect of surplus space under non-cancellable lease agreements is expensed in the period in which the space becomes surplus.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.8 Grants

Most grant agreements require the grantee to perform services, provide facilities or meet eligibility criteria. In these cases, the Institute recognises grant liabilities only to the extent that the services required have been performed or the eligibility criteria have been satisfied by the grantee.

In cases where grant agreements are made without conditions to be monitored, liabilities are recognised on signing the agreement.

1.9 Bad and doubtful debts

Bad debts are written off in the year they are identified. A provision is raised for doubtful debts based on review of all receivables outstanding for more than 90 days at year end and any other specific debt where the collection of the full amount is considered doubtful.

The Institute has made a loan to a start up company. Given the uncertainty of the development of the company the Institute has fully provided for the possibility of non payment of the loan.

1.10 Cash

Cash means notes and coins held and any deposits held at call with a bank or financial institution. Cash is recognised at its nominal amount.

1.11 Trade Creditors

Trade creditors and accruals are recognised at their nominal amounts, being the amounts at which the liabilities will be settled. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.12 Contingent Liabilities and Contingent Assets

Contingent Liabilities and Assets are not recognised in the Balance Sheet but are discussed in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset, or represent an existing liability or asset in respect of which settlement is not probable or the amount cannot be reliably measured. Remote contingencies are part of this disclosure. Where settlement becomes probable, a liability or asset is recognised. A liability or asset is recognised when its existence is confirmed by a future event, settlement becomes probable or reliable measurement becomes possible.

1.13 Acquisition of Assets

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where applicable.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.14 Property, Plant and Equipment (PP&E)

Asset Recognition Threshold

Purchases of property, plant and equipment are recognised initially at cost in the Balance Sheet, except for purchases costing less than $2,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

Revaluations Basis

Land, buildings, plant and equipment are carried at fair value, being revalued with sufficient frequency such that the carrying amount of each asset class is not materially different, at reporting date, from its fair value. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets. Formal valuations undertaken in 2006 were as at 31 March.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised through profit and loss. Revaluation decrements for a class of assets are recognised directly through profit and loss except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the net amount restated to the revalued amount of the asset.

Fair values for each class of property, plant and equipment are determined as shown below:

Asset class	Fair value measured at:
Land	Market selling price
Buildings	Market selling price
Leasehold improvements	Depreciated replacement cost
Plant & equipment	Market Selling Price

Depreciation

Depreciable property plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to the Institute using, in all cases, the straight-line method of depreciation. Leasehold improvements are depreciated on a straight-line basis over the lesser of the estimated useful life of the improvements or the unexpired period of the lease.

Depreciation rates (useful lives) and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate. Residual values are re-estimated for a change in prices only when assets are revalued.

A reassessment of remaining useful life was undertaken in conjunction with 2006 revaluation. The reassessment resulted in a write back in the current year of $2.147 million in depreciation expenses recognised over the last three years.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

	2006	2005
Buildings and improvements	10 to 80 years	10 to 40 years
Plant and equipment	3 to 20 years	3 to 20 years
Software	3 to 12 years	3 to 12 years

The aggregate amount of depreciation allocated for each class of asset during the reporting period is disclosed in Note 5C.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.15 Impairment of Non-Current Assets

Non-current assets carried at up to date fair value at the reporting date are not subject to impairment testing.

Non-current assets carried at cost and held to generate net cash inflows, primarily by the Institute's for profit Education Services Business Operations, have been tested for indications of impairment at the reporting date. The test compared the carrying amounts against the net present value of future net cash inflows. No indicators of impairment were found for assets at fair value (2005:nil).

The non-current assets carried at cost, which are not held to generate net cash inflows, have been assessed for indications of impairment. Where indications of impairment exist, the asset is written down to the higher of its net selling price and, if the entity would replace the asset's service potential, its depreciated replacement cost.

1.16 Intangibles

The Institute's intangibles comprise purchased software for internal use. Software purchases are recognised at cost in the Balance Sheet, except for purchases costing less than $2,000 which are expensed in the year of acquisition. Software developed internally is not capitalised and they are written off at the time such development expenses are incurred.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of the Institute's software is 3 to 12 years (2004-05: 3 to 12 years).

All software assets were assessed for indications of impairment as at 30 June 2006.

1.17 Inventories

Inventories held for resale are valued at the lower of cost and net realisable value. Inventories held for distribution are measured at the lower of cost and current replacement cost.

Costs incurred in bringing each item of inventory to its present location and condition are assigned as follows:

- raw materials and stores – purchase cost on a first-in-first-out basis; and
- finished goods and work in progress – cost of direct materials and labour plus attributable costs that are capable of being allocated on a reasonable basis.

Inventories acquired at no cost or nominal consideration are measured at current replacement cost at the date of acquisition.

1.18 Foreign Currency

Transactions denominated in a foreign currency are converted at the exchange rate at the date of the transaction. Foreign currency receivables and payables are translated at the exchange rates current as at balance date. Associated currency gains and losses are not material.

1.19 Research, Development and Intellectual Property

Costs associated with research and development, intellectual property, patents and trade marks are expensed as incurred unless it can be established that they are recoverable beyond reasonable doubt.

1.20 Contract Research

The Institute has entered into various agreements with external parties for the research and development of technologies and scientific knowledge. Details of the ownership of intellectual property vary from agreement to agreement. These arrangements do not involve sharing in common of liabilities and interest in assets, other than assets represented by intellectual property to which the Institute does not attribute any value in the accounts.

1.21 Consultancies and Grants

Various consultancies and grants have been made to the Institute for specific research projects, seminar, workshops and employment assistance. Monies are paid either in advance or arrears and the difference at 30 June is reflected as either creditors or receivables respectively.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

1.22 Taxation

The Institute is exempt from all forms of taxation except fringe benefits tax and the goods and services tax (GST).

Revenues, expenses and assets are recognised net of GST:

- except where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- except for receivables and payables.

1.23 Loans and Receivables

Where loans and receivables are not subject to concessional treatment, they are carried at amortised cost using the effective interest method. Loans and receivables subject to concessional treatment are carried at cost.

1.24 Financial Risk Management

The Institute's activities expose it to normal commercial financial risk. As a result of the Institute's business, internal and Australian Government policies dealing with the management of financial risk, the Institute's exposure to market, credit liquidity, and cash flow and fair value interest rate risk is considered to be low.

1.25 Investments

The Institute has interests in:

- Cleveland Biosensors Pty ltd
- AIMS@JCU joint venture
- Arafura Timor Research Facility Joint Venture

Cleveland Biosensors Pty Ltd

The Institute retains an investment of 7.9% in a spin off company Cleveland Biosensors Pty Ltd (CBPL). The investment is 100 shares at a total value of $100. This is not a controlling ownership and so does not require consolidation of CBPL in the Institute's accounts.

AIMS@JCU Joint Venture

The Institute has entered into a joint venture operations with James Cook University (JCU) to:-

- increase research activities by the participants in determined programs; and
- to improve participant individual research capabilities and research outputs and outcomes of all participants

The joint venture operations have a Board which determines the research objective for funding. The agreement specifies that the share that each participant is to receive from the joint venture is to be determined by the Board.

The Institute received from the joint venture operations $750,000 to cover the construction of the Tropical Aquaculture facility at the Institute and various operating expenditure on behalf of the joint venture operations. In 2005 the Institute received from the joint venture operations $743,956 to cover the installation of a fibre optic cable between the Institute and JCU to improve communications between the two organisations and various operating expenditure on behalf of the joint venture operations.

The Institute is responsible for managing the funds on behalf of the joint venture operations. As at 30 June 2006 the Institute held $1,687,839 (2005 $2,907,000) on behalf of the joint venture operations. This is shown as a liability in the Institute's financial statements.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

The Arafura Timor Research Facility Joint Venture

The Institute has entered into joint venture operations with the Australian National University. The Institute has a 50% share. The purpose of the venture is to maintain a research facility in Darwin that will create a centre of excellence in the field of physical, chemical engineering, information or biological sciences with the capability of pursuing world class research and training in that field. The Australian National University is responsible for managing the financial affairs of the joint venture.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

	2005	2004
	$'000	$'000

NOTE 2: THE IMPACT OF THE TRANSITION TO AEIFRS FROM PREVIOUS AGAAP

Reconciliation of total equity as presented under previous AGAAP to that under AEIFRS

Total equity under previous AGAAP	**54,944**	**53,088**
Adjustments to retained earnings:		
Annual Leave[1]	**(81)**	**(81)**
Total equity translated to AEIFRS	**54,863**	**53,007**

Reconciliation of profit or loss as presented under previous AGAAP to AEIFRS

Prior year profit as previously reported	**1,856**
Prior year profit translated to AEIFRS	**1,856**

The cash flow statement presented under previous AGAAP is equivalent to that prepared under AEIFRS

[1] The provision for annual leave is required to be adjusted under AIFRS to recognise the present value of estimated future cash flows using national government bond yields.

NOTE 3: EVENTS AFTER THE BALANCE SHEET DATE

The Institute has committed to replace one of its existing vessel at a cost of $12.5 million. The Board is not aware of any other significant events after the balance sheet date.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

		2006 $'000	2005 $'000
NOTE 4.	**INCOME**		
4A	**Revenues from Government**		
	Appropriations for outputs	**23,125**	22,483
	Total revenues from Government	**23,125**	22,483
4B	**Goods and Services**		
	Goods	**84**	89
	Services	**8,144**	5,600
	Total sales of goods and services	**8,228**	5,689
	Provision of goods to:		
	External entities	**84**	89
	Total sales of goods	**84**	89
	Rendering of services to:		
	Related entities	**726**	624
	External entities	**7,418**	4,976
	Total rendering of services	**8,144**	5,600
4C	**Interest**		
	Interest on deposits	**1,060**	985
4D	**Joint Ventures**		
	Joint ventures	**996**	2,696
	Total revenue from joint ventures	**996**	2,696
4E	**Other Revenues**		
	Insurance claims	**153**	70
	Other	**14**	39
	Total other revenue	**167**	109
4F	**Net Gain from disposal of assets**		
	Proceeds from disposal	-	464
	Net book value of assets disposed	-	(385)
	Net gain from disposal of plant and equipment	-	79
	Write down of assets	-	(29)
	Total net gain from disposal of assets	-	50
NOTE 5.	**OPERATING EXPENSES**		
5A	**Employee Expenses**		
	Wages and salaries	**11,065**	10,404
	Superannuation	**1,629**	1,589
	Annual recreation leave	**1,623**	1,228
	Long service leave	**375**	150
	Fringe benefits tax	**239**	212
	Total employee expenses	**14,931**	**13,583**

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

		2006	2005
		$'000	$'000
NOTE 5. OPERATING EXPENSES (CONTINUED)			
5B	**Supplier Expenses**		
	Operating lease rentals	**142**	198
	Appointment expenses	**52**	112
	Auditing	**44**	43
	Equipment and software purchases	**257**	303
	Catering subsidy	**98**	69
	Chemical and laboratory supplies	**315**	319
	Cleaning and ground maintenance	**222**	242
	Communications, telephone and postage	**506**	475
	Compensation	**-**	177
	Consultancies	**110**	21
	Contracting & servicing	**1,959**	1,647
	Consumables	**240**	597
	Electricity	**524**	521
	Field Costs	**79**	57
	Freight	**224**	197
	Fuel, oil and gas	**597**	466
	Hire of equipment	**572**	187
	Insurances	**262**	288
	Legal	**54**	76
	Licences and fees	**330**	192
	Patents and trademarks	**95**	105
	Publications journals and subscriptions	**416**	453
	Rent	**116**	50
	Repairs and maintenance	**1,164**	1,104
	Security	**199**	166
	Stationery	**99**	108
	Training, seminars and conferences	**133**	122
	Travel and accommodation	**1,032**	1,058
	Vessels management and staffing	**1,716**	1,648
	Victuals	**73**	54
	Water	**55**	89
	Workers compensation	**51**	66
		11,736	11,210
	Provision of goods - related entities	**7**	8
	Provision of goods - external entities	**2,123**	2,556
	Rendering of services -related entities	**720**	1,051
	Rendering of services - external parties	**8,744**	7,397
	Operating lease rentals	**142**	198
	Total supplier expenses	**11,736**	11,210

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

		2006 $'000	2005 $'000
NOTE 5. OPERATING EXPENSES (CONTINUED)			
5C	**Depreciation and Amortisation**		
	Depreciation		
	The aggregate amounts of depreciation expensed during the reporting period for each class of depreciable asset are as follows:		
	Building and improvements	**317**	1,362
	Plant and equipment	**2,270**	1,814
	Computer equipment	**(249)**	833
	Vehicles	**177**	244
	Office equipment	**50**	49
	Ships, launches and vessels	**254**	387
	Library	**30**	226
	Total depreciation	**2,849**	4,915
	Amortisation		
	Intangibles - computer software	**100**	79
	Total depreciation and amortisation	**2,949**	4,994
5D	**Expenditure on Joint Ventures**		
	Depreciation	**45**	3
	Other expenditure	**249**	226
	Total expenditure on joint ventures	**294**	229
5E	**Interest**		
	Payable to joint ventures	**104**	-
5F	**Write Down and Impairment of Assets**		
	Bad and doubtful debts expense	**262**	140
5G	**Net Loss from Disposal of Assets**		
	Proceeds from disposal	**559**	-
	Net book value of assets disposed	**(552)**	-
	Net gain from disposal of plant and equipment	**(7)**	-
	Write down of assets	**135**	-
	Total net loss from disposal of assets	**128**	-

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

		2006 $'000	2005 $'000
NOTE 6. FINANCIAL ASSETS			
6A	**Cash and cash equivalents**		
	Cash on hand	**5**	5
	Cash at bank	**224**	184
	Total cash and cash equivalents	**229**	189
6B	**Investments under S18 of the CAC Act**		
	Term deposits	**16,807**	13,340
	Term deposits on behalf of AIMS@JCU	**1,688**	2,906
	Total investments	**18,495**	16,246
	Investments are categorised as follows:		
	Current	**17,495**	14,296
	Non-current	**1,000**	1,950
	Total investments	**18,495**	16,246
6C	**Receivables**		
	Goods and services	**3,627**	1,003
	Less : allowance for doubtful debts	**(423)**	(161)
		3,204	842
	Loan	**729**	729
	Less : allowance for doubtful debts	**(729)**	(729)
		-	-
	Interest receivable	**254**	178
	Other receivables	**79**	282
	Total receivables (net)	**3,537**	1,302
	All receivables are with entities external to the Commonwealth.		
	Credit terms are net 30 days (2005:30 days)		
	Receivables (gross) are aged as follows :		
	Current	**3,317**	1,287
	Overdue by:		
	Less than 30 days	**-**	-
	30 to 60 days	**53**	-
	60 to 90 days	**28**	145
	More than 90 days	**1,291**	760
		1,372	905
	Total receivables (gross)	**4,689**	2,192

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

		2006	2005
		$'000	$'000
NOTE 6. FINANCIAL ASSETS (CONTINUED)			
6C	**Receivables (continued)**		
	The provision for doubtful debts is aged as follows:		
	Current	-	-
	Overdue by:		
	Less than 30 days	-	-
	30 to 60 days	-	-
	60 to 90 days	-	-
	More than 90 days	**(1,152)**	(890)
	Total provision for doubtful debts	**(1,152)**	(890)
	Receivables are categorised as follows:		
	Current	**3,537**	1,302
	Non-current	-	-
	Total receivables	**3,537**	1,302
NOTE 7. NON-FINANCIAL ASSETS			
7A	**Buildings and improvements**		
	directors valuation 30 June 2001		
	- fair value	**48,138**	33,043
	- work in progress	**1,387**	28
		49,525	33,071
	Accumulated depreciation	**(420)**	(3,354)
	Total buildings and improvements	**49,105**	29,717
7B	**Plant and equipment**		
	Plant and equipment		
	- fair value	**9,543**	13,860
	- work in progress	**653**	39
		10,196	13,899
	Accumulated depreciation	**(893)**	(3,854)
	Total plant and equipment	**9,303**	10,045
	Computer equipment		
	- fair value	**1,184**	3,002
	Accumulated depreciation	**(95)**	(2,057)
	Total computer equipment	**1,089**	945
	Vehicles		
	- fair value	**1,278**	1,374
	- work in progress	**16**	-
		1,294	1,374
	Accumulated depreciation	**(56)**	(279)
	Total Vehicles	**1,238**	1,095

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

		2006 $'000	2005 $'000
NOTE 7. NON-FINANCIAL ASSETS (CONTINUED)			
7B	**Plant and equipment (continued)**		
	Office equipment		
	- fair value	**91**	248
	Accumulated depreciation	**(9)**	(116)
	Total office equipment	**82**	132
	Ships, launches and vessels		
	- fair value	**3,447**	4,257
	- work in progress	**92**	128
		3,539	4,384
	Accumulated depreciation	**(72)**	(803)
	Total ships, launches and vessels	**3,467**	3,581
	Library books		
	- fair value	**1,611**	2,696
	Accumulated depreciation	**(96)**	(564)
	Total library books	**1,515**	2,132
	Total plant and equipment		
	- fair value	**17,153**	25,437
	- work in progress	**762**	167
		17,915	25,604
	Accumulated depreciation	**(1,221)**	(7,674)
	Total plant and equipment	**16,694**	17,930
7C	**Intangibles**		
	Computer software at cost		
	Externally purchased	**474**	347
	Work in progress at cost	**46**	-
		520	347
	Accumulated amortisation	**(219)**	(128)
	Total Intangibles	**301**	219
7D	**Inventories**		
	Inventories held for sale	**39**	40
	Stores inventories not held for sale (cost)	**200**	180
	Total inventories	**239**	220
	All inventories are current assets		
7E	**Other Non-Financial Assets**		
	Workshop jobs in progress	**-**	444
	Prepayments	**288**	366
	Total other non-financial assets	**288**	810
	Other non-financial assets are categorised		
	Current	**268**	743
	Non-current	**20**	66
	Total other non-financial assets	**288**	810

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

Note 7F Analysis of Property, Plant and Equipment and Intangibles

TABLE A - Reconciliation of the opening and closing balances of property, plant and equipment and intangibles

Item	Buildings & Improve-ments $'000	Plant & Equipment $'000	Computer equipment $'000	Vehicles $'000	Office Equipment $'000	Ships, Vessels & Launches $'000	Library Books $'000	Computer Software $'000	TOTAL $'000
As at 1 July 2005									
Gross book value	33,071	13,899	3,002	1,374	248	4,384	2,696	347	59,021
Accumulated depreciation/amortisation	(3,354)	(3,854)	(2,057)	(279)	(116)	(803)	(564)	(128)	(11,155)
Opening net book value	29,717	10,045	945	1,095	132	3,581	2,132	219	47,866
Additions									
By purchase	1,766	1,730	328	917	23	260	(2)	202	5,224
By revaluation	18,085	(178)	(421)	(83)	(20)	(108)	(585)	-	16,690
Depreciation/amortisation expense	(362)	(2,269)	249	(177)	(50)	(254)	(30)	(100)	(2,993)
Other disposals	(102)	(25)	(13)	(513)	(3)	(12)		(19)	(687)
As at 30 June 2006									
Gross book value	49,570	10,196	1,184	1,294	91	3,539	1,611	520	**68,005**
Accumulated depreciation/amortisation	(464)	(893)	(95)	(56)	(9)	(72)	(96)	(219)	**(1,905)**
Closing net book value	**49,105**	**9,303**	**1,089**	**1,238**	**82**	**3,467**	**1,515**	**301**	**66,100**

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

		2006 $'000	2005 $'000
NOTE 8. PAYABLES			
8A	**Supplier Payables**		
	Trade creditors	**4,197**	1,316
	Total supplier payables	**4,197**	1,316
	All supplier payables are current liabilities		
	Settlement is usually 30 days.		
8B	**Other Payables**		
	Consultancies and grants		
	Non-profit institutions	**1,396**	1,343
	Profit institutions	**35**	5
	Joint ventures	**1,688**	2,907
	Total other payables	**3,119**	4,255
	Other payables are represented by:		
	Current	**1,931**	2,640
	Non-current	**1,188**	1,615
		3,119	4,255
NOTE 9. PROVISIONS			
	Employee Provisions		
	Salaries and wages	**117**	55
	Annual leave	**3,128**	2,739
	Long service leave	**3,537**	3,355
	Fringe benefit tax	**57**	50
	Total employee provisions	**6,839**	6,199
	Current	**6,405**	5,754
	Non-current	**434**	445
	Total employee provisions	**6,839**	6,199

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

		2006	2005
		$'000	$'000
NOTE 10. CASH FLOW RECONCILIATION			
10A	**Reconciliation of cash per Balance Sheet to Statement of Cash Flows**		
	Cash at year end per Statement of Cash Flows	**18,724**	16,435
	Balance Sheet items comprising above cash:		
	Cash and cash equivalents	**229**	189
	Investments under S18 of the CAC Act	**18,495**	16,246
	Financial Asset - Cash	**18,724**	16,435
10B	**Reconciliation of operating results to net cash from operating activities**		
	Operating result	**3,172**	1,856
	Non-Cash Items		
	Depreciation and amortisation	**2,994**	4,997
	Loss on impairment of assets	**262**	140
	Net (gain)/loss from disposal of assets	**128**	(50)
	Change in provisions	**-**	(9)
	(Increase)/Decrease in receivables	**(2,497)**	730
	(Increase)/Decrease in inventories	**(19)**	20
	(Increase)/Decrease in other assets	**449**	(254)
	Increase/(Decrease) in employees provisions	**722**	289
	Increase/(Decrease) in supplier payables	**2,880**	(478)
	Increase/(Decrease) in other payables	**(1,136)**	(635)
	Net cash from operating activities	**6,954**	6,606

NOTE 11. EXTERNAL FINANCING ARRANGEMENTS

The Institute has finance facilities with the Commonwealth Bank of Australia as follows:		
Total facilities	**1,000**	1,000
Amount of facility used as at 30 June	-	-
Facility available	**1,000**	1,000

The facilities do not appear on the Balance Sheet

NOTE 12. CONTINGENT LIABILITIES AND ASSETS

The Institute is not aware of any material contingencies that may have an impact on the Institute.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

NOTE 13. DIRECTORS REMUNERATION (MEMBERS OF COUNCIL)

	2006 Number	2005 Number
The number of directors of the Institute included in these figures are shown below in the relevant remuneration bands.		
$1 - $14,999	**2**	4
$15,000 - $29,999	**3**	3
$130,000 - $144,999	**1**	-
$225,000 - $239,999	-	1
$270,000 - $284,999	**1**	-
	7	**8**
	$	$
Total remuneration received or due and receivable by Directors from the Institute	**387,062**	326,283

The Directors (members of council) of the Institute are appointed by the Governor General. The Chief Executive Officer is appointed by the Governor General on the recommendation of the Board of Directors (members of council).

NOTE 14. RELATED PARTIES DISCLOSURE

Directors of the Institute
The Directors (members of council) of the Institute during the year were:
Dr Ian Gould (Chairman)
Mr John Grace
Ms Elizabeth Montano
Professor Peter Hoj
Mr Nicholas Mathiou appointed 1/9/2005
Professor Neville Pankhurst appointed 15/12/2005 and resigned 16/06/2006
Dr Ian Poiner (Chief Executive Officer)

The aggregate remuneration of Directors is disclosed in Note 13.

Loans to Directors and Director Related entities
There were no loans made to any Director or Director related entities during the period (2005: nil).

Other Transactions with Director or Director related entities
There were no other transactions with Directors or Director related entities during the period (2005: nil).

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

NOTE 15. EXECUTIVE REMUNERATION

	2006 Number	2005 Number
The number of senior executives who received or were due to receive total remuneration of $130,000 or more:		
$130,000 - $144,999	**3**	1
$165,000 - $179,999	**1**	1
	4	2
	$	$
The aggregate amount of total remuneration of executives shown above.	**560,600**	314,970

The officer remuneration included all officers, except the Chief Executive Officer, concerned with or taking part in the management of the Institute during 2005-06 who received or were due to receive total remuneration of $130,000 or more. Details in relation to the Chief Executive Officer have been incorporated in Note 13 - Remuneration of Directors

NOTE 16. REMUNERATION OF AUDITORS

	$	$
The cost of financial statement audit services provided to the Institute were:	**43,500**	42,500

No other services were provided by the Auditor-General during the accounting period.

NOTE 17. STAFFING LEVELS

	Number	Number
Number of employees at the reporting date	**165**	167

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTE 18. FINANCIAL INSTRUMENTS

Table A Interest Rate Risk

Financial Instrument	Notes	Floating Interest Rate		Fixed Interest Rate Maturing In: 1 Year or less		Fixed Interest Rate Maturing In: 1 to 5 Years		Non - Interest Bearing		Total		Weighted Average Effective Interest Rate	
		2006	2005	**2006**	2005	**2006**	2005	**2006**	2005	**2006**	2005	**2006**	2005
		$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000	**%**	%
Financial Assets (Recognised)													
Cash at bank	6A	**224**	**184**	**-**	**-**	**-**	-	**-**	-	**224**	184	**3.25**	3.25
Cash on hand	6A	**-**	**-**	**-**	**-**	**-**	-	**5**	5	**5**	5	**n/a**	n/a
services and accrued income	6C	**-**	**-**	**-**	**-**	**-**	-	**3,582**	1,003	**3,582**	1,003	**n/a**	n/a
Term deposit	6B	**-**	**-**	**17,495**	14,296	**1,000**	1,950	**-**	-	**18,495**	16,246	**5.84**	5.37
Accrued interest	6C	**-**	**-**	**-**	**-**	**-**	-	**254**	178	**254**	178	**n/a**	n/a
Other receivables	6C	**-**	**-**	**-**	**-**	**-**	-	**79**	282	**79**	282	**n/a**	n/a
Long term loan	6C	**-**	**-**	**-**	**-**	**729**	729	**-**	-	**729**	729	**5.79**	5.10
Total Financial Assets (Recognised)		**224**	**184**	**17,495**	**14,296**	**1,729**	2,679	**3,920**	1,468	**23,368**	18,628		
Financial Liabilities (Recognised)													
Trade creditors	8A	**-**	**-**	**-**	**-**	**-**	-	**4,197**	1,316	**4,197**	1,316	**n/a**	n/a
Consultancies and grants	8B	**-**	**-**	**-**	**-**	**-**	-	**3,119**	4,255	**3,119**	4,255	**n/a**	n/a
Total Financial Liabilities (Recognised)		**-**	**-**	**-**	**-**	**-**	-	**7,316**	5,571	**7,316**	5,571		

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTE 18. FINANCIAL INSTRUMENTS (CONTINUED)

TABLE B Fair Values of Financial Assets and Liabilities

		2006		2005	
	Note	**Total Carrying Amount $'000**	**Aggregate Net Fair Value $'000**	Total Carrying Amount $'000	Aggregate Net Fair Value $'000
Financial Assets					
Cash at bank	6A	**224**	**224**	184	184
Cash on hand	6A	**5**	**5**	5	5
Receivables for goods and services	6C	**3,158**	**3,158**	842	842
Term deposits	6B	**18,495**	**18,495**	16,246	16,246
Accrued interest	6C	**254**	**254**	178	178
Other receivables	6C	**79**	**79**	282	282
Total Financial Assets		**22,215**	**22,215**	17,738	17,738
Financial Liabilities (Recognised)					
Trade creditors	8A	**4,197**	**4,197**	1,316	1,316
Consultancies and grants	8B	**3,119**	**3,119**	4,255	4,255
Total Financial Liabilities		**7,316**	**7,316**	5,571	5,571

Financial Assets

The net fair values of cash, deposits on call and non-interest bearing monetary financial assets approximate their carrying amounts.

The net fair value of term deposits are based on discounted cash flows using current interest rates for assets with similar risk profiles.

Financial Liabilities

The net fair values for trade creditors and consultancies and grants, which are short term in nature, approximate their carrying amounts.

Credit Risk Exposure

The Institute's maximum exposure to credit risk at the reporting date in relation to each class of recognised financial assets is the carrying amount of those assets as indicated in the Balance Sheet.

The Institute has no significant exposure to any concentrations of credit risk.
All figures for credit risk referred to do not take into account the value of any collateral or other security.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTE 19. APPROPRIATIONS

Particulars	Departmental Outputs		Equity		Total	
	2006	2005	**2006**	2005	**2006**	2005
	$'000	$'000	**$'000**	$'000	**$'000**	$'000
Balance carried forward from previous year	**-**	22	**-**	**-**	**-**	22
Appropriation Acts 1 and 3	**23,125**	22,461	**-**	**-**	**23,125**	22,461
Available for payment of CRF	**23,125**	22,483	**-**	**-**	**23,125**	22,483
Payment made out of CRF	**23,125**	22,483	**-**	**-**	**23,125**	22,483
Balance carried forward to next year	**-**	-	**-**	**-**	**-**	**-**
Represented by:						
Appropriations Receivable	**-**	22	**-**	**-**	**-**	22

This table reports on appropriations made by the Parliament of the Consolidated Revenue Fund (CRF) for payment to the Institute. When received by the Institute, the payments made are legally the money of the Institute and do not represent any balance remaining in the CRF.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS

for the year ended 30 June 2006

NOTE 20. REPORTING OF OUTCOMES

20A Outcome of the Institute

The Institute is structured to meet one outcome -
"Enhanced scientific knowledge supporting the protection and sustainable development of Australia's marine resources".

Only one Output is identified for the one Outcome.

	2006	2005
	$'000	$'000
20B Net Cost of Outcome Delivery		
Operating expenses	**30,404**	30,156
Total expenses	**30,404**	30,156
Cost recovered from provision of goods and services to the non-government sector		
Goods and services	**8,228**	5,688
Total cost recovered	**8,228**	5,688
Other external revenues		
Interest	**1,060**	985
Revenue from joint ventures	**996**	2,696
Net gain from disposal of plant & equipment	**-**	50
Other	**167**	109
Total other external revenues	**2,223**	3,840
Net cost/(contribution) of outcome	**19,953**	20,628
20C Institute Revenues and Expenses by Output		
Operating expenses		
Employees	**14,931**	13,583
Suppliers	**11,736**	11,210
Depreciation	**2,949**	4,994
Interest	**104**	-
Expenditure on related entities/joint venture operations	**294**	229
Write down and impairment of assets	**262**	140
Net losses from disposal of assets	**128**	-
Total operating expenses	**30,404**	30,156
Funded by:		
Revenues from Government	**23,125**	22,483
Goods and services	**8,228**	5,689
Interest	**1,060**	985
Revenue from joint ventures	**996**	2,696
Net gain from disposal of plant & equipment	**-**	50
Other	**167**	109
Total operating revenue	**33,576**	32,012

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2006

NOTE 21. INVESTMENTS	2006 $'000	2005 $'000
Arafura Timor Research Facility Joint Venture		
The Institute has taken up its 50% share		
Income Statement		
Revenue from joint venture	**229**	1,953
Share of expenditure for the year	**277**	203
Net operating (loss) / surplus from joint venture	**(48)**	1,750
Represented:-		
Balance Sheet		
Assets		
Building	**1,589**	1,609
Motor vehicles	**11**	15
Provision for depreciation	**(45)**	(3)
Total non current assets	**1,555**	1,621
Cash in bank	**140**	122
Accounts receivable	**5**	6
Total current assets	**145**	128
Total increase in equity	**1,700**	1,749
AIMS@JCU Joint Venture		
The Institute has taken up its share of investment		
Income Statement		
Revenue from joint venture	**768**	744
Expenditure by the Institute on joint venture	**18**	24
Net operating surplus from joint venture	**750**	720
Represented:-		
Balance Sheet		
Asset - non current	**750**	720
Total increase in equity	**750**	720
Funds held by the Institute on behalf of the joint venture	**1,688**	2,907

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

for the year ended 30 June 2006

REVENUE COMPARISON

	2006	2005	2004	2003	2002
	$'000	$'000	$'000	$'000	$'000
Non-Government revenue					
External revenue	**8,228**	5,689	5,368	5,576	4,707
Interest	**1,060**	985	790	674	629
Other revenue	**167**	109	158	318	161
Total Non-Government revenue	**9,455**	6,783	6,316	6,568	5,497
Appropriations					
Operating	**18,469**	18,160	17,841	17,202	16,797
Asset replacement	**4,656**	4,323	4,293	3,636	2,775
Capital and infrastructure	**-**	-	-	3,420	2,811
Capital use charge	**-**	-	-	5,256	4,965
Total appropriation revenue	**23,125**	22,483	22,134	29,514	27,348
Other Government revenue					
Revenue related entity	**996**	2,696	2,142	-	-
Total Other Government revenue	**996**	2,696	2,142	**-**	**-**
Total Revenue from Government	**24,121**	25,179	24,276	29,514	27,348
Total revenue	**33,576**	31,962	30,592	36,082	32,845
External revenue ratio	**26%**	20%	20%	21%	19%

External revenue includes consultancies, grants and contract collaborations.
External revenue ratio is total external revenue in relation to external revenue plus operating and asset replacement appropriations.

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

for the ended year 30 June 2005

SOURCE OF EXTERNAL REVENUE BY INDUSTRY

	2006	2005	2004	2003	2002
	$000	$000	$000	$000	$000
Australian government	**971**	466	486	278	430
Australian joint government/industry	**5,098**	3,093	2,298	2,065	2,350
International governments	**875**	1,005	765	986	476
Australian industry	**1,042**	524	1,173	1,195	1,009
International industry	**158**	512	528	828	328
Sale of goods	**84**	89	118	224	114
	8,228	5,689	5,368	5,576	4,707

COOPERATIVE RESEARCH CENTRE (CRC)

Comparison contributions with respective CRCs are:-

	2006	2005	2004	2003	2002
	$000	$000	$'000	$'000	$'000
AIMS contribution in-kind to the two CRCs were					
CRC Reef	**4,479**	3,138	3,261	2,881	2,765
CRC Aquaculture	**-**	-	-	-	-
CRC TS	**64**	223	-	-	-
Research income received from CRCs were -					
CRC Reef	**4,331**	2,658	2,002	1,458	1,790
CRC Aquaculture	**-**	-	-	13	30
CRC TS	**150**	145	-	-	-

EMPLOYEE STAFF YEARS

	2006	2005	2004	2003	2002
	No.	No.	No.	No.	No.
Science research staff	**107.4**	102.9	107.0	98.6	92.8
Research services	**54.9**	52.7	50.7	53.3	57.6
	162.3	155.6	157.7	151.9	150.4

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

for the year ended 30 June 2006

COST OF OUTPUT BY RESEARCH GROUPS

	Variable	Salaries	Fixed	Overheads	**2005-06 Total**	2004-05 Total
	$'000	$'000	$'000	$'000	**$'000**	$'000
The Coastal Processes Group						
Appropriation	313	1,085	402	1,340	**3,140**	4,411
External	842	1,212	936	1,496	**4,486**	2,339
	1,155	2,297	1,338	2,836	**7,626**	6,750
The Conservation and Biodiversity Group						
Appropriation	611	2,471	2,057	3,051	**8,190**	10,332
External	1,727	1,483	462	1,831	**5,503**	3,948
	2,338	3,954	2,519	4,882	**13,693**	14,279
The Marine Biotechnology Group						
Appropriation	481	2,253	1,830	2,782	**7,346**	7,093
External	428	407	108	503	**1,446**	1,804
	909	2,660	1,938	3,284	**8,791**	8,898
Total Summary						
Appropriation	1,405	5,809	4,289	7,172	**18,675**	21,836
External	2,997	3,102	1,506	3,830	**11,435**	8,091
Total	4,402	8,911	5,795	11,002	**30,110**	29,927

APPENDICES

1. LEGISLATIVE FOUNDATION AND MINISTERIAL POWERS

ENABLING LEGISLATION

The Australian Institute of Marine Science is a Statutory Authority established on 9 June 1972 by the *Australian Institute of Marine Science Act 1972* (AIMS Act).

FUNCTIONS OF INSTITUTE

(1) The functions of the Institute are:

(a) to carry out research and development in relation to:
  (i) marine science and marine technology; and
  (ii) the application and use of marine science and marine technology; and

(b) to encourage and facilitate the application and use of the results of research and development of that kind; and

(c) to arrange for carrying out research and development of that kind; and

(d) to co-operate with other institutions and persons in carrying out research and development of that kind; and

(e) to provide any other institution or person with facilities for carrying out research and development of that kind; and

(f) to collect and disseminate information relating to:
  (i) marine science and marine technology; and
  (ii) the application and use of marine science and marine technology;
  and, in particular, to publish reports and other papers; and

(g) to produce, acquire, provide and sell goods, and to provide services, in connection with:
  (i) marine science and marine technology; and

(ii) the application and use of marine science and marine technology; and

(h) to make available to other persons, on a commercial basis, the knowledge, expertise, equipment, facilities, resources and property of the Institute; and

(i) to do anything incidental or conducive to the performance of any of the functions in paragraphs (a) to (h).

POWERS OF THE INSTITUTE

Under Section 10 of the AIMS Act the Institute is empowered to do all things necessary or convenient to be done for, or in connection with, the performance of its functions, including power to:

(a) Enter into contracts;

(b) Acquire, hold and dispose of personal property;

(ba) to take on hire, or to accept on loan, equipment (including vessels) or other goods needed for the purposes of the Institute;

(bb) to lend or to hire out equipment (including vessels) or other goods that are the property of the Institute;

(c) Purchase or take on lease land or buildings, and to erect buildings, necessary for the purposes of the Institute;

(d) Dispose of, or grant leases of, land or buildings vested in the Institute;

(e) Occupy, use and control any land or building owned or held under lease by the Commonwealth and made available for the purposes of the Institute;

(f) Participate in partnerships, trusts, unincorporated joint ventures and other arrangements for sharing profits;

(g) Subscribe for and to purchase shares in, and debentures and other securities of, companies;

(h) Form, and to participate in the formation of, companies; and

(i) Appoint agents and attorneys, and to act as agents for other persons;

(j) Accept anything given or transmitted to the Institute whether on trust or otherwise, and to act as trustee of money or other property vested in the Institute on trust;

(k) Arrange for displaying material and giving lectures, to the public or otherwise, in respect of matters relating to
marine science and marine science technology; and
the application and use of marine science and marine technology.

MINISTERIAL POWERS OF DIRECTION

Under Section 10 (1) of the AIMS Act, the Minister has power to direct the Institute in matters of a general or specific nature. These powers pertain particularly to the following:

1. Granting leave of absence to Council members (Section 13, 16(b));
2. Appointing (and terminating such appointment) a person to act as Chairperson (Section 17(1) and (3));

3. Appointing (and terminating such appointment) a person to act as a member of Council (Section 17(2) and (3));
4. Convening a meeting of Council (Section 20(2));
5. Determining terms and conditions of Director's leave of absence (Section 25(2));
6. Approving the Director to undertake paid employment outside the duties of his or her office (Section 29(1) and (2));
7. Appointing a person to act as Director and determining his or her terms and conditions of appointment (Section 30);
8. Approving the Institute to enter into a contract involving the payment of Institute funds of an amount exceeding $1m, or higher amount if specified in the regulations (Section 42); and
9. Appointing a Committee to assist Council and approving the terms and conditions of members (Section 45).
10. Out of money appropriated by the Parliament for the purpose, the Finance Minister has power to lend money to the Institute (Section 42A);
11. The Finance Minister has the power to provide written approval for the Institute to borrow money from persons other than the Commonwealth (Section 42B); and
12. The Finance Minister has the power to guarantee borrowings of the Institute (Section 42C).

2. PERFORMANCE INDICATORS

AIMS has reported against indicators that measure the efficiency and effectiveness of its research effort since they were introduced in the Triennium Funding Agreements. These indicators are agreed between AIMS, the Minister for Education, Science and Training and the Minister for Finance. AIMS is committed to continuous improvement in its performance reporting framework and has implemented a programme of external expert review.

Ongoing programmes of evaluation at AIMS include:

- The assessment and reporting of performance against performance indicators;
- The regular submission of research findings to external review by scientific peers;
- The critical assessment of patent applications; and
- The annual staff performance review cycle.

Major AIMS performance indicators are detailed in the table on page 128.

New knowledge and collaborative R&D

Indicator	Criteria	Regularity
AIMS' investment in priority areas[1]	The absolute and percentage change in the level of appropriation expenditure in priority areas over the triennium against the planned profile documented in the AIMS Research Plan	Triennial
Scientific publications	Number and type of publications (peer reviewed papers, technological reports and reports written for external consultancies). Categorisation to be consistent with method used by Australian universities.	Annual
Citation analysis	Retrospective citation analysis using Science Citation Index	5 Yearly
Postgraduate supervision	Number of postgraduate students (jointly) supervised	Annual
Recognition by peers	Distinguished awards, major prizes, nominations as host agency by internationally recognised researchers	Annual
External assessment and review	New assessment process to be established 2004-05. Aim for timely implementation of recommendations	Ongoing
Co-investment in research	Joint ventures/strategic alliances Number of collaborations (collaborative research projects)	Annual Annual

Research services, specialised consulting

External revenue	External revenue by source and as a percentage of total funds	Annual
Adoption by users	Selection[2] of practices, instruments and processes developed by AIMS that have been adopted by users in industry, government and the community. Includes examples where there has been a change in user practices resulting from adoption of the technology developed at AIMS or in response to information and policy advice provided by AIMS. Commercially sensitive items not reported.	Annual
Contracts successfully completed	Number of contracts completed and proportion completed on time	Annual
Input to policy-making and advice	Number of advisory submissions	Annual
Contribution to teaching	Number of conjoint teaching positions	Annual
Customer survey	Feedback from key stakeholders and partners	Triennial

Licensing, patenting and start-ups

Patents	Number of patents held reported by number of separate technologies	Annual
Commercial disclosures	Number	Annual
Commercial arrangements	Number	Annual
Start-up companies	Number and operating status	Annual

[1] Includes *National Research Priorities*
[2] Some items may be relevant or more than one financial year and will be reported on a three-year rolling basis.

3. NATIONAL RESEARCH PRIORITIES

NATIONAL RESEARCH PRIORITY GOALS

A. An Environmentally Sustainable Australia

Transforming the way we utilise our land, water, mineral and energy resources through a better understanding of human and environmental systems and the use of new technologies.

1. **Water – a critical resource**
   Sustainable ways of improving water productivity, using less water in agriculture and other industries, providing increased protection of rivers and groundwater and the re-use of urban and industrial waste waters.
2. **Transforming existing industries**
   New technologies for resource-based industries to deliver substantial increases in national wealth while minimising environmental impacts on land and sea.
3. **Overcoming soil loss, salinity and acidity**
   Identifying causes of and solutions to land degradation using a multidisciplinary approach to restore land surfaces.
4. **Reducing and capturing emissions in transport and energy generation**
   Alternative transport technologies and clean combustion and efficient new power generation systems and capture and sequestration of carbon dioxide.
5. **Sustainable use of Australia's biodiversity**
   Managing and protecting Australia's terrestrial and marine biodiversity both for its own value and to develop long-term use of ecosystem goods and services ranging from fisheries to ecotourism.
6. **Developing deep earth resources**
   Smart high-technology exploration methodologies, including imaging and mapping the deep earth and ocean floors, and novel efficient ways of commodity extraction

and processing (examples include minerals, oil and gas) while minimising negative ecological and social impacts.

7. **Responding to climate change and variability**
   Increasing our understanding of the impact of climate change and variability at the regional level across Australia and addressing the consequences of these factors on the environment and on communities.

B. Promoting and Maintaining Good Health

Promoting good health and well being for all Australians

1. **A healthy start to life**
   Counteracting the impact of genetic, social and environmental factors which predispose infants and children to ill health and reduce their well being and life potential.
2. **Ageing well, ageing productively**
   Developing better social, medical and population health strategies to improve the mental and physical capacities of ageing people.
3. **Preventive healthcare**
   New ethical, evidence-based strategies to promote health and prevent disease through the adoption of healthier lifestyles and diet, and the development of health-promoting products.
4. **Strengthening Australia's social and economic fabric**
   Understanding and strengthening key elements of Australia's social and economic fabric to help families and individuals live healthy, productive and fulfilling lives.

C. Frontier Technologies for Building and Transforming Australian Industries

Stimulating the growth of world-class Australian industries using innovative technologies developed from cutting-edge research

1. **Breakthrough science**
   Better understanding of the fundamental processes that will advance knowledge and facilitate the development of technological innovations.
2. **Frontier technologies**
   Enhanced capacity in frontier technologies to power world-class industries of the future and build on Australia's strengths in research and innovation (examples include nanotechnology, biotechnology, ICT, photonics, genomics/phenomics, and complex systems).
3. **Advanced materials**
   Advanced materials for applications in construction, communications, transport, agriculture and medicine (examples include ceramics, organics, biomaterials, smart material and fabrics, composites, polymers and light metals).
4. **Smart information use**
   Improved data management for existing and new business applications and creative applications for digital technologies (examples include e-finance, interactive systems, multi-platform media, creative industries, digital media creative design, content generation and imaging).

5. **Promoting an innovation culture and economy**
   Maximising Australia's creative and technological capability by understanding the factors conducive to innovation and its acceptance.

D. Safeguarding Australia

Safeguarding Australia from terrorism, crime, invasive diseases and pests, strengthening our understanding of Australia's place in the region and the world and securing our infrastructure, particularly with respect to our digital systems

1. **Critical infrastructure**
   Protecting Australia's critical infrastructure including our financial, energy, communications and transport systems.
2. **Understanding our region and the world**
   Enhancing Australia's capacity to interpret and engage with its regional and global environment through a greater understanding of languages, societies, politics and cultures.
3. **Protecting Australia from invasive diseases and pests**
   Counteract the impact of invasive species through the application of new technologies and by integrating approaches across agencies and jurisdictions.
4. **Protecting Australia from terrorism and crime**
   By promoting a healthy and diverse research and development (R&D) system that anticipates threats and supports core competencies in modern and rapid identification techniques.
5. **Transformational defence technologies**
   Transform military operations for the defence of Australia by providing superior technologies, better information and improved ways of operation.

4. FREEDOM OF INFORMATION STATEMENT

The *Freedom of Information Act 1982* (FOI Act) requires each Australian Government agency to publish a statement setting out its role, structure and functions, the documents available for public inspection and access to such documents. Section 8 of the FOI Act requires each agency to publish information on the way it is organised, its powers, decisions made and arrangements for public involvement in its work.

This statement, in conjunction with information contained in this annual report, is intended to meet the requirements of Section 8 of the FOI Act.

ROLE, STRUCTURE AND FUNCTIONS

The Institute's role, structure and functions are described in pages 63-66 of this Annual Report.

DOCUMENTS AVAILABLE FOR INSPECTION

Copies of the Institute's publications and reports available on request are listed below. With the exception of final project reports, they are generally free of charge. Other information may be available, subject to assessment on the grounds of, for example, commercial confidentiality or personal privacy.

Facilities for reviewing documents are provided at AIMS. The Institute's publications are on display to the public and may be purchased through the AIMS Bookshop.

General enquiries concerning access to documents, or other matters relating to FOI, should be directed to:

Human Resources Manager
Australian Institute of Marine Science
PMB No 3, Townsville Mail Centre MC Qld 4810
Telephone: (07) 4753 4319
Facsimile: (07) 4772 5852

Strategic Directions	Files, publications*
Research Plan	Files, publications*
Annual Operational Plan	Files, unpublished documents
Project details	Databases, files
Final project reports	Publications
Non-technical summaries of final project reports	Publications*
R&D funding applications	Files, Annual Report file, publications
Administration	Files, unpublished documents
Mailing lists	Databases

*These documents are also available on the Institute's website (www.aims.gov.au).

CUSTOMER SERVICE CHARTER

The AIMS Service Charter for dealing with clients is posted on our website. The Institute welcomes feedback on how well it is delivering services against the standards set in this charter, and has included a feedback form on the website. Both the charter and the feedback form may be found at www.aims.gov.au/pages/about/corporate/csc-01.html

5. SCIENCE PUBLICATIONS 2005

JOURNALS

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Diaz-Pulido G, McCook LJ (2005) Effects of nutrient enhancement on the fecundity of a coral reef macroalga. Journal of Experimental Marine Biology and Ecology 317: 13-24.

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6. AIMS SCIENTISTS' MEMBERSHIP OF EXTERNAL COMMITTEES AND NGOS

INTERNATIONAL FORUMS

Association of Official Analytical Chemists (AOAC) Presidential Task Force on Marine and Freshwater Toxins
Arafura Timor Seas Expert Forum (ATSEF) Steering Committee
Convention on Biological Diversity's Panel of Experts on Access and Benefit Sharing (Aust rep)
Census of Marine Life Scientific Steering Committee (Vice Chair)
Coral Reef Degradation in the Indian Ocean (CORDIO) Project Steering Committee
Coral Reef Initiative for South Pacific (CRISP) Senior Scientific Advisor
Great Barrier Reef Research Foundation - International Scientific Advisory Committee (GBRRF – ISAC)
International Atomic Energy Agency (Expert Consultant to United Nations Development Project 'Transfer of Receptor Binding Assay for Harmful Algal Toxins')
International Coral Reef Action Network Steering Committee
International Coral Reef Initiative Co-ordination and Planning Committee
International Marine Biotechnology Association
International Ocean Institute (Australia) Coordination Centre for Asia Pacific – Board Member
International Society for Reef Studies - Councillor
National Irish Marine Biotechnology Steering Committee
Palau International Coral Reef Center Scientific Advisory Committee
Stratos/IISD/Swiss Government's Access and Benefit Sharing Tool Project Advisory Committee
UNESCO International Hydrological Program: Estuarine Ecohydrology subproject
United Nations-Sigma Xi Science Expert Group
World Bank Coral Reef Restoration and Remediation Working Group

DOMESTIC FORUMS

AIMS@JCU Board
Antarctic Research Assessment Committee (ARAC) Life Sciences
Arafura Timor Research Facility (ATRF) Board
Australasian Centre of Excellence Regional Users Advisory Panel (UQ)
Australian Academy of Technological Sciences and Engineering: CAETS 2005 - Organising Committee
Australian Fisheries Management Authority Northern Shark Stock Assessment Group
Australian Government Department of the Environment and Heritage, National Shark Recovery Group
Australian Integrated Ocean Observing System (AusIOOS) Working Group
Australian Marine Sciences Association (AMSA) National Committee
Australian Marine Sciences Association (AMSA) NT President
Australian National Sportfishing Association (ANSA) Scientific Research Foundation
Australian Ocean Data Centre Joint Facility
Australian Research Council Expert Review Committee
Australian Research Council Oz Reader
Australian Research Council INTREADER
Commonwealth Inter-departmental Committee on Access to Genetic Resources
Commonwealth Marine Protected Areas Committee
Consortium for Integrated Resource Management – GBR Catchments Working Group
Coordination Committee on Science and Technology (CCST)
Cooperative Research Centre (CRC) Reef Research Board
Cooperative Research Centre (CRC) Reef Research Scientific Advisory Committee
Cooperative Research Centre (CRC)Reef Research Task Review Committee
Cooperative Research Centre (CRC) Torres Strait Board
Darwin Harbour Research Advisory Committee
Fisheries Research and Development Corporation Prawn Domestication Steering Committee
Great Barrier Reef Seabed Biodiversity Project Steering Group – Chair
Great Barrier Reef Marine Park Authority (GBRMPA) Fisheries Research Advisory Committee
Great Barrier Reef Marine Park Authority (GBRMPA) Water Quality and Coastal Research Advisory Committee
James Cook University Marine and Aquaculture Research Facilities Committee
Joint Cooperative Research Centre (CRC) Reef & Rainforest 'Catchment to Reef Program' Steering Group
Institute of Marine Engineering, Science and Technology (IMarEST) Accreditation Panel
Milner Bay Marine Environment Advisory Group - Chair
Milner Bay Marine Environmental Advisory Group
Maritime Museum of Townsville Board
National Centre for Tropical Wetlands Management
National Facilities Ship Scientific Advisory Committee

Northern Prawn Fishery Spatial Management Framework Steering Committee
Northern Territory Fisheries Research Advisory Board
Oceans Policy Science Advisory Group (OPSAG)
Palm Island Sponge Farming Steering Committee
Queensland Biotechnology Advisory Committee for Environmental Biotechnology
Queensland Department of Natural Resources, Mines and Water (QDNRM&W)
    Burdekin River Water Allocation Management Plan Technical Advisory Panel (TAP)
Queensland Department of Primary Industries and Fisheries (QDPI&F)
    HarvestMac
Queensland Department of Primary Industries and Fisheries (QDPI&F)
    HarvestMac Aquarium fish working group
Queensland Department of Primary Industries and Fisheries (QDPI&F)
    HarvestMAC Coral fishery working group
Queensland Department of Primary Industries and Fisheries (QDPI&F)
    HarvestMac Sea cucumber working group
Queensland Department of Primary Industries and Fisheries ReefMac
Queensland Department of Primary Industries and Fisheries TrawlMac (Chair)
Reef Water Quality Protection Plan (RWQPP) Steering Committee
Reef Water Quality Protection Plan (RWQPP) Program Committee
Reef Water Quality Protection Plan (RWQPP) Expert Advisory Panel for Inshore Marine Monitoring
Scientific Peer Review Panel for the National Representative System of Marine Protected Areas (Chair)
Torres Strait Scientific Advisory Committee
Twin Cities Fish Stocking Society – Scientific Advisor
Western Australian Physical Oceanographic Coordinating Group (WAPOCG)
Western Australian Global Ocean Observing System (WAGOOS)
Western Australian Marine Science Institution (WAMSI) Board
Western Rock Lobster Fishery Effects of Fishing on the Ecosystem – Scientific Reference Group

GLOSSARY

ACRONYMS & ABBREVIATIONS

ACIAR	Australian Centre for International Agricultural Research
AFMR	Agency for Fisheries and Marine Research (Indonesia)
AIMS	Australian Institute of Marine Science
AIMS Act	*Australian Institute of Marine Science Act 1972*
ANAO	Australian National Audit Office
ASX	Australian Stock Exchange
AUSTRAC	Australian Transaction Reports and Analysis Centre
AUV	Autonomous Underwater Vehicle
ATRF	Arafura Timor Research Facility
BRUVS	Baited Remote Underwater Video Stations
CAC Act	*Commonwealth Authorities and Companies Act 1997*
CALM	Western Australian Department of Conservation and Land Management
CERF	Commonwealth Environment Research Facilities
CBPL	Cleveland Biosensors Pty Ltd
CoML	Census of Marine Life
COREMAP	Coral Reef Rehabilitation and Management Program (Indonesia)
CRC	Cooperative Research Centre
CRC Rainforest	Cooperative Research Centre for Tropical Rainforest Ecology and Management
CRC Reef	Cooperative Research Centre for the Great Barrier Reef World Heritage Area
CRITC	Coral Reef Information and Training Centre
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Australian Government Department of Agriculture, Fisheries and Forestry
DEH	Australian Government Department of the Environment and Heritage
DEST	Australian Government Department of Education, Science and Training

DFAT	Australian Government Department of Foreign Affairs and Trade
EEO	Equal Employment Opportunity
EMP	Environment Management Plan
ERISS	Environmental Research Institute of the Supervising Scientist
FOI	Freedom of Information
FRDC	Fisheries Research and Development Corporation
GBR	Great Barrier Reef
GBRMP	Great Barrier Reef Marine Park
GBRMPA	Great Barrier Reef Marine Park Authority
GBRWHA	Great Barrier Reef World Heritage Area
GCRMN	Global Coral Reef Monitoring Network
GIWA	Global International Waters Assessment
HOCOLEA	Heads of Commonwealth Operational Law Enforcement Agencies
IMarEST	Institute of Marine Engineering, Science and Technology
IP	Intellectual property
IPCC	Intergovernmental Panel on Climate Change
ISI	Institute for Scientific Information
ISI-ESI	Institute for Scientific Information Essential Science Indicators
JCU	James Cook University
LTMP	Long-term Monitoring Programme
MCUCS	Mine Countermeasure Underwater Computer Systems
MoU	Memorandum of Understanding
MTSRF	Marine and Tropical Sciences Research Facility
NCRIS	National Collaborative Research Infrastructure Strategy
NOAA	United States National Oceanic and Atmospheric Administration
NORMAC	Northern Prawn Fishery Management Advisory Committee
NRETA	Northern Territory Department of Natural Resources, Environment and the Arts
NRP	*National Research Priorities*
OECD	Organisation for Economic Co-operation and Development
OH&S	Occupational health and safety
OH&S Act	*Occupational Health and Safety (Commonwealth Employment) Act 1991*
PM&C	Australian Government Department of the Prime Minister and Cabinet
PMSEIC	Prime Minister's Science, Engineering and Innovation Council
QDPI&F	Queensland Department of Primary Industries and Fisheries
QEPA	Queensland Environmental Protection Agency
QHSS	Queensland Health Scientific Services
QNRM&W	Queensland Department of Natural Resources, Mines and Water
R&D	Research and development
RWQPP	Reef Water Quality Protection Plan
UNCSD	United Nations Commission on Sustainable Development
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WAMSI	Western Australian Marine Science Institution
WHCO	Australian Institute of Marine Science Workplace Harassment Contact Officers
WQIP	Douglas Shire Water Quality Improvement Project

COMPLIANCE INDEX

ALPHABETICAL INDEX