Australian Government

Australian Institute of Marine Science

Annual Report

2006 - 2007

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 image: Diagonal banded sweetlip, *Plectorhynchus lineatus*. Photo: Martin MacNaughton
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17 September 2007

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

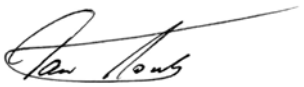
Dear Minister

On behalf of the Council of the Australian Institute of Marine Science, we have pleasure in presenting the Institute's 35th Annual Report for the year ended 30 June 2007. 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 2006-2007 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 2006-2007) Orders*. The Council endorsed the content of the AIMS Annual Report in a resolution dated 17 September 2007.

Yours sincerely



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A Snapshot of the Year

- AIMS has maintained its position in the top 1% of research organisations internationally in the fields of plant and animal science and environment and ecology.
- Significant research achievements include:
  - New knowledge about genetic diversity in coral symbionts that will improve our capacity to predict the future of coral reefs affected by global warming;
  - New understanding of the complex relationships between water quality and the condition of inshore coral reefs and the development of bio-indicators to detect changes in water quality;
  - New data showing a decrease in coral growth over the last decade, despite rising water temperatures, will improve prediction of the impact of climate change on coral reefs;
  - Evidence that coral disease outbreaks have a disproportionate impact on reefs with the highest coral cover, which has implications for biodiversity preservation strategies;
  - New information on inter-reefal habitats in the Great Barrier Reef demonstrates the effectiveness of the GBR Zoning Plan (2003) for the protection of biodiversity;
  - Evidence of a declining whale shark population off Ningaloo Reef which is providing new information for management planning; and
  - A total of 144 scientific publications and 17 theses were produced in 2006-2007.
- The quality and impact of AIMS research confirmed by external reviewers.
- AIMS continued to leverage stakeholder investment through effective partnerships and strong collaborative networks with more than 70% of its research undertakings co-invested with partner organisations.
- The quality, productivity and relevance of AIMS research continues to be demonstrated by achievements against performance indicators agreed with the Australian Government.
- Continued commitment by the Australian Government for AIMS science with a nine percent increase in the budget for the new quadrennium including support for new initiatives in northwest Australia.

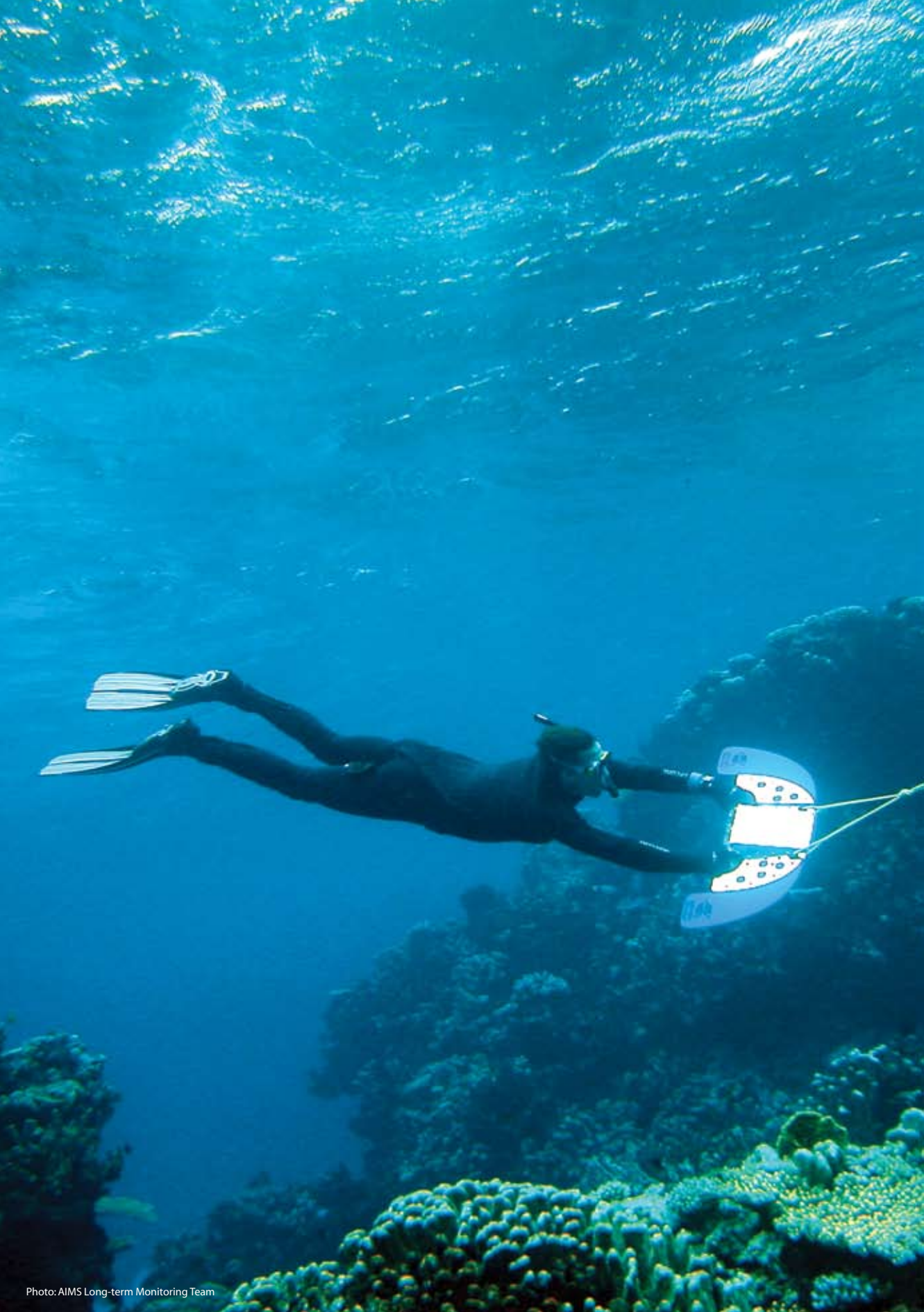


Photo: AIMS Long-term Monitoring Team

About AIMS

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 and supports sustainable wealth creation opportunities from marine resources.

To do this, AIMS surveys and documents marine life from the microbes to whole-of-ecosystems, and the processes that sustain them; monitors changes and identifies trends in the marine environment; and, develops enabling molecular tools and ocean technologies.

The products of our research include improved understanding of tropical marine ecosystems, improved forecasting of the effects of global climate change and information to guide the sustainable development of tropical marine-based industries.

OUR PEOPLE

AIMS is home to a dynamic team of 95 science staff working across six research teams plus 69 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. AIMS research is applied from whole ecosystems down to the molecular level and is focussed in the broad areas of marine biodiversity, impacts and adaptation to climate change, water quality and ecosystem health, tropical aquaculture and the emerging area of marine microbiology.

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, Queensland, 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. The RV *Lady Basten* will be replaced in October 2007 with a state-of-the-art vessel to be named RV *Solander*. During 2006–2007, the ships supported 49 research expeditions totalling 556 days at sea and a total of 32,228 nautical miles.

Highlights

WHAT'S HAPPENING TO MODERN CORAL GROWTH RATES?

AIMS is custodian of the world's largest and most comprehensive collection of coral cores taken from massive *Porites*. Density bands within these cores are laid down annually, providing an historical record of growth rates and environmental conditions stretching back, in some cases, hundreds of years. The longest core in the AIMS collection has been dated back to 1300 A.D.

Previous AIMS research has shown that growth in *Porites* is directly proportional to average sea surface temperature: corals in warmer water grow faster. On that basis, the general warming of the ocean over the last century (about 0.4 °C for the Great Barrier Reef) suggests that (in the absence of other factors) growth of modern corals should be increasing. Consequently, it was a surprise when analyses of *Porites* colonies from two inshore regions of the Great Barrier Reef (450 km apart) showed evidence to the contrary.

Although restricted to a 16-year window in the recent past, the corals collected from the Wet Tropics region and Princess Charlotte Bay showed that calcification rates in massive *Porites* have declined linearly by around 21% in both regions since 1988: this decline was mainly due to slower linear extension (~16%) with a smaller decline in skeletal density (~6%). The corals also showed a non-linear response to increasing seawater temperatures: calcification was highest around 26.7 °C in the study regions, and declined above and below this point. This finding indicated that corals grow best up to an optimal temperature of 26.7 °C but growth is affected when temperatures exceed this point. Possible causes of the observed decline in coral growth since 1988 despite warming waters are now being investigated. Causes under investigation focus on a combination of increasing temperature stress and changes in seawater chemistry ("ocean acidification") due to rising atmospheric CO_2 concentrations.

DECLINING ABUNDANCE OF GENTLE GIANTS

The iconic whale sharks that congregate at Ningaloo Reef off Western Australia, providing the basis for an important marine tourism opportunity worth up to $20 million per annum for the regional economy around the small township of Exmouth, appear to be declining in number and size, according to a recent analysis of shark sightings provided by the industry.

Whale sharks grow slowly and reproduce infrequently; because of this they are particularly vulnerable to over-exploitation and can sustain few losses above their natural mortality rate. The species was listed as nationally threatened under Australia's Environment Protection and Biodiversity Conservation Act (1999).

The pattern of spots on these animals provides a unique identifier of individual sharks, much like human fingerprints. Researchers from AIMS and Charles Darwin University have been using a 12-year photographic library of whale sharks from Ningaloo Reef, collected by the local tourism operators and others, to track re-sightings of the same individuals. This led to the conclusion that the number of 'known' sharks returning to Ningaloo annually has been declining faster than would be forecast from natural attrition, leading to the reasonable hypothesis that this reflects additional mortality from fishing somewhere within their enormous range.

This information is being used to inform and validate international efforts to monitor and control illegal fishing upon these gentle giants of the sea. The Department of Environment and Conservation in Western Australia is measuring the impact of ecotourism on sharks visiting Ningaloo by recording the number of times individual sharks are seen during the whale shark tourism season. This knowledge supports protection of the whale sharks and sustainability of this valuable regional industry. In addition, the Australian Department of Environment and Water Resources is using this new information to inform funding priorities for research, such as the development of ecotourism industries based on whale sharks in Indonesia.

Unique whale shark spot patterns allow identification and tracking of individuals.

HIDDEN DIVERSITY DISCOVERED INSIDE CORALS

Reef-building stony corals are a partnership between an animal host and symbiotic microalgae that live in the animal tissues. As with other plants, the algal symbionts use energy from sunlight to make sugars through photosynthesis, and this contribution is critical to the survival of the host because the coral receives most of its nutrition from the algae. Many external stress events (freshwater, unusually cold or hot temperatures) can cause coral bleaching (i.e., the paling of the coral tissues due to the loss of its algae and/or their photosynthetic pigments), but none is so devastating over large spatial scales as the abnormally warm sea temperatures linked to global climate change.

The symbiosis between the coral host and its algal symbiont is sensitive to even small temperature increases; an increase of just 1.0–1.5 °C is typically enough to reach the point where the symbiosis breaks down and the coral host loses the majority of the algal symbionts.

Past research by AIMS scientists has shown that different populations of the same coral species can be dominated by different genetic types of microalgae and that some of these symbioses are more heat stable than others. Further work has shown that some coral colonies contain more than one type of symbiont and that the symbiont community of a coral colony can change over time. The change is brought about by changing the order of dominance between coexisting types ("symbiont shuffling") rather than uptake of new symbiont types from the environment ("symbiont switching").

Initial reactions to these research findings have been varied but one of the most compelling arguments against the importance of symbiont shuffling as a mechanism to acclimatize to climate change is that only few corals have been shown to possess more than one type of symbiont.

The latest results by AIMS scientists in collaboration with the Netherlands' University of Groningen show that the perception of low symbiont diversity within individual corals colonies is a significant underestimate that has been driven by the insensitivity of the current generation of genetic screens. The development of new techniques–100 times more powerful than conventional methods–has provided the first evidence that many coral colonies store an unrecognised diversity of microalgae, which make the potential of symbiont shuffling far greater than is currently thought.

Algal symbionts give corals their colour and provide nutrition but are lost when the corals bleach due to increased sea temperature.

GREAT BARRIER REEF SEABED BIODIVERSITY PROJECT DELIVERS THE GOODS

The Great Barrier Reef Seabed Biodiversity Project was a $9 million collaboration among four research partners (AIMS, CSIRO, Queensland Department of Primary Industries and Fisheries (QDPI&F), and the Queensland Museum), developed by the CRC Reef partnership with major funding from Fisheries Research and Development Corporation (FRDC), to map non-reef habitats and their biodiversity throughout the Marine Park in depths between 10 and 150 metres. To achieve this, the AIMS flagship RV *Lady Basten* took collaborators to more than 1,400 locations within a continental shelf area measuring 210,000 km^2 for benthic surveys using a range of tools including acoustics, cameras, and bottom samplers. This information was pooled with research trawls from almost 450 of the same locations taken by the QDPI&F vessel, FRV *Gwendoline May*. In the last 12 months, scientists working in laboratories in Townsville, Brisbane, Canberra and Hobart have completed their initial assessment of the samples and turned this information into knowledge about seafloor life.

The result is a comprehensive inventory of distribution and abundance for more than 7,000 species; perhaps four times more than previous data sets. Already, more than 50 species are new to science including fishes, elasmobranchs (sharks and rays), crustaceans and sponges. Many more are known to be new records for Australia and further taxonomic work on the samples (lodged for posterity in the Queensland Museum) are expected to reveal hundreds of others, particularly in less well studied invertebrate groups and algae, adding substantially to the known biodiversity of the Great Barrier Reef.

The scientists also identified key environmental variables likely to be important in structuring seabed distributions including bathymetry, sediment composition, benthic irradiance, current stress, nutrients and turbidity. They developed predictive models for the abundance of each species based on observed relationships with the physical environment, which means that surrogates can be used to predict the abundance of this species in places not yet sampled.

The information has been used to assess conservation goals by informing GBRMPA about the performance of the GBR Zoning Plan (2003), which has met or surpassed the original criterion of preserving at least 20% of each bioregion. It has also been used in preliminary risk analyses of trawl fisheries within the Marine Park to ensure that these industries are conducted in an ecologically sustainable manner, which appears to be the case.

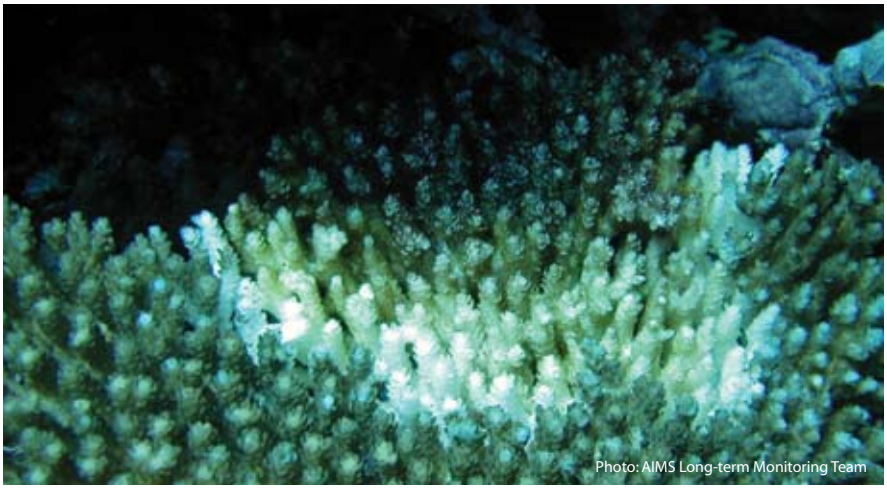
New benthic sled and cod net collects a sample of plants and animals living on the seabed which are used to help identify species recorded on video.

CORAL DISEASE LINKED TO WARMER SEA TEMPERATURES

Coral diseases have become an important research area since they were identified as being responsible for major losses of dominant coral species on Caribbean reefs over the past 20 years. The situation on Australia's Great Barrier Reef (GBR) is different in that coral diseases have not caused major losses to date. However, an international team of scientists working on the GBR has now found a clear link between coral disease and warmer ocean temperature.

'White syndrome' is one of a number of coral diseases that have increased globally in recent years. An international team of scientists from AIMS, the ARC Centre of Excellence for Coral Reef Studies and the University of North Carolina compared new high-resolution measures of sea surface temperature from NOAA satellites for 1998-2004 with the incidence of white syndrome in that period on 48 reefs that have been surveyed by the AIMS Long-term Monitoring Team since the early 1990s. The main discovery was that high water temperatures are associated with increased disease, but only on reefs with high coral cover.

The surveys included sites on inshore, mid-lagoon and outer barrier reefs spread over 10 degrees of latitude from Lizard Island in the far north to Lady Musgrave Reef at the southern end of the GBR. In 2002, when sea temperatures were abnormally warm and coral bleaching was widespread on the GBR, the incidence of coral disease on the monitored reefs was more than an order of magnitude higher than in years with normal sea temperatures but most notably higher on reefs with high coral cover. This 'catch–22' relationship means that reefs which, through position and/or good luck have not suffered impacts such as cyclones or pest outbreaks, and are apparently in best condition before summer, are at greater risk of coral disease in abnormally warm years. This raises concerns that future impacts of increasing temperatures from global warming may disproportionately affect important reservoirs of coral biodiversity.



Close up view of a tabulate *Acropora* sp. hard coral colony showing the typical signs associated with White Syndrome.

PESTICIDES COMPOUND CLIMATE RISK TO REEF

Corals under pressure from rising ocean temperatures may also face an additional threat in the form of pesticides running off the land. Collaborative research by AIMS and James Cook University has shown that agricultural chemicals at levels so low as to be practically undetectable can harm corals, especially the more sensitive early life history stages.

The study measured the sensitivity of the eggs, larvae and adults of a common coral, *Acropora millepora,* to a number of common pollutants including four classes of agricultural insecticides and a fungicide commonly used in GBR catchments. While previous studies had shown little impact of these same insecticides on adult corals, the recruitment of coral larvae was reduced to below half after just 18 hours exposure to very low concentrations of each insecticide. In addition, the study found that all life stages of coral are sensitive to an agricultural fungicide which caused tissue retraction, bleaching and mortality at very low concentrations. This study revealed some of the most sensitive biological responses yet demonstrated to pesticide contamination in the marine environment and suggest that current water quality guidelines may not adequately protect reef corals. The high susceptibility of coral larvae to pesticides at concentrations close to minimum detection levels highlights the critical need to assess toxicity against all life history stages of keystone organisms, such as reef-building corals, because to focus on mature individuals may underestimate species sensitivity.

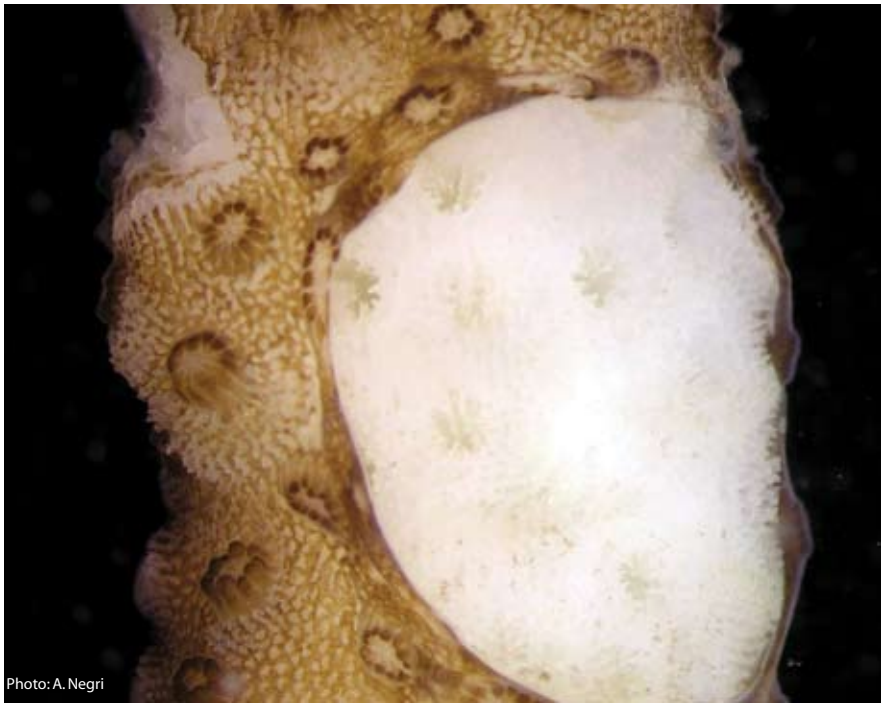


Photo: A. Negri

Up close image of a coral branch exposed to 1 µg/L of the fungicide MEMC. The brown tissue is normal but the MEMC has caused tissue death, exposing the white skeleton.

TOWARDS ENVIRONMENTALLY SUSTAINABLE AQUACULTURE

AIMS scientists are engaged in an international project aimed at establishing sustainable capacity thresholds for tropical finfish cage aquaculture. Field studies have now been completed at a large barramundi farm in the Northern Territory and at grouper farms in South Sulawesi and Lampung provinces, Indonesia. Data from these studies are being used to develop planning tools that will be initially applied in Indonesia, but will be applicable throughout the region.

This project, "Planning tools for environmentally sustainable tropical finfish cage culture in Indonesia and northern Australia", was funded by ACIAR to link AIMS' scientific expertise on tropical coastal processes to research on the environmental effects of fish cages being undertaken in Indonesia at the Research Institute for Coastal Aquaculture (RICA), in South Sulawesi and the National Sea Farming Development Centre in Lampung. A companion project based at UNSW was funded by ACIAR to research similar issues for land-based aquaculture. Expected community benefits from this work will include minimisation of local environmental impacts of cage culture at the study sites and a general framework for assisting future cage farming developments in Indonesia to be ecologically sustainable.

Although sea cage aquaculture in tropical Australia is limited (currently only one farm in Queensland), the work in Indonesia facilitates the development of planning tools for aquaculture in environments where such aquaculture is already intensive. The knowledge gained will provide answers to common questions posed by environmental managers, such as "what is the footprint (area of influence) of a sea cage farm?", and "how many sea cages can a particular environment support before there is evidence of detectable influences upon natural ecosystem processes including resilience?"

Ayong Farm, Lampung, Indonesia, is a typical SE Asian sea cage farm. Wooden rafts are supported by drums for flotation, and mesh nets containing grouper species are suspended underneath.

EFFECTS OF WATER QUALITY ON REEF CONDITION

AIMS research into the "Effects of water quality on coral reefs" under the CRC Reef research banner concluded in 2006–2007 after a sustained effort over six years. Between 2003 and 2006 it was enhanced by supplementary funding from partnership with the joint Rainforest CRC and CRC Reef "Catchment to Reef" programme. The research programme resulted in significant advances in understanding of the relationships between water quality and the condition of inshore coral reefs and also developed a suite of bio-indicators for changes in water quality, ranging from molecular stress markers to indicators of general ecosystem health. Outputs included training 14 postgraduate students and 34 published works covering macroalgae, coralline algae, coral reproduction, soft and hard coral biodiversity patterns, biofilms, marine snow, sediment resuspension, a review of the effects of terrestrial runoff, and a new method to assess causality in ecological studies.

Collectively the research contributed substantially, over a relatively short period of time, to a shift in the public discourse about water quality on the Great Barrier Reef from strongly polarised positions ("no hope" versus "no problem") to a more informed one about the subtle effects of variable water quality on the condition and ecological functions of inshore reef ecosystems. This impact was achieved through sustained scientific publication, conference presentations, and public education through presentations and discussions at public meetings, and print, film and electronic media. The results were presented extensively to GBRMPA, and featured in the Productivity Commission Report and the Baker Report on the issue of land run-off. This high level of public awareness has led to the response by State and Commonwealth Governments in such initiatives as the GBR Water Quality Protection Plan (Reef Plan), which seeks to halt or reverse declining water quality in inshore sections of the Great Barrier Reef Marine Park.

Research into water quality and ecosystem health continues to be a core activity of AIMS. Research includes delving deeper into the ecological processes causing the observed responses to water quality, further refinement of bioindicators for water quality with a focus on dose-response relationships, exploring the interaction of water quality with other stressors such as climate change, the wider effects of water quality on the biodiversity of coral reefs and broad-scale monitoring of water quality and ecosystem health as part of the Great Barrier Reef Water Quality Protection Plan (see AIMS research plan).

Divers deploying a sediment trap on a near-shore reef.

REEF FISH IN HOT WATER

While the link between global warming, rising sea temperatures and the risk of coral bleaching has received a lot of attention from scientists and the media, a recent study has shown that hot seawater also impacts the health and future prospects of baby fish. Environmental differences experienced early in life not only have immediate consequences for survival, but also profoundly influence the chances of success later in life.

A team from AIMS and the ARC Centre of Excellence for Coral Reef Studies studied hundreds of nests containing spawn from the Ambon damselfish to establish the extent to which parental quality and environmental rearing conditions influence the survival of these fishes. It has been known for some time that maternal condition affects the quality of eggs spawned and that egg quality influences the growth and survival of the hatchlings and juveniles. However the team found that the rearing environment also influences their fitness.

Working from the Lizard Island Research Station on the northern Great Barrier Reef, the team made observations on the egg masses deposited in benthic nests and defended by the male parent. The major result was that survival of the developing embryos was dramatically compromised at 31 °C, which now is not an uncommon temperature at this location during summer and will become increasingly common as the global oceans warm. The hatching cohort of fish was then tracked through to the juvenile stage, which showed that the environment in the nest has long-lasting consequences determining which individuals survive to replenish the next generation.

Future climate change will require the rapid evolution of increased heat tolerance. It is not clear whether species will be able adapt fast enough to cope with warming at the rates that most climate models predict. If species cannot adapt their distribution ranges will shift causing changes in biodiversity.

The Ambon damselfish was used in this study to investigate how the rearing environment influences larval fitness.

RIVER CATCHMENTS AND MARINE PRODUCTIVITY IN TIMOR LESTE

The Timor Leste Government has recognised that land-use practices in the nation's river catchments have accelerated coastal erosion which may be degrading the quality of waterways and coastal zone habitats along both the north and south coasts. At the Government's invitation, scientists from AIMS, Charles Darwin University and the Australian National University assessed biophysical and social elements of two major river systems (Laclo and Betano) draining to the north and south coasts, respectively. The Timor Leste Government and the United Nations Development Programme (UNDP) funded the necessary fieldwork and community consultations.

In the Laclo catchment, scientists measured nutrients and recycling processes near the river mouth and established permanent study sites in tidal forests dominated by different mangrove species, many of which are used for fuel wood. Measurements in the Laclo catchment confirmed that historical deforestation has caused severe gully erosion and siltation of the river system. The downstream impact upon the marine environment was less significant, however, because almost all of the extra sediment and nutrients are transported quickly across a narrow continental shelf and sunk in the deep ocean. As a result, mangroves along the nearby coast are growing in muds derived from the ocean rather than from the catchment. Similarly, nutrients for the inshore food web are derived as much from the ocean as by release from sediments deposited on the shelf and upper continental slope. One result is that marine production near the mouth of the Laclo River has little dependence, if any, upon river-derived materials.

Scientists are now analysing data from the Betano catchment, which was sampled in June 2007. The conclusions about coastal impacts are expected to be quite different, as the southern coast is fringed by a broader continental shelf. Satellite images show extensive plumes of muddy waters extending along the coast, apparently trapped against the coast by prevailing winds, as is the case in north Queensland and Gulf of Papua.

Typical mangrove forest in Timor Leste after small-scale cutting by refugees along the north coast.

EFFECT OF GBR ZONING FOR FISH POPULATIONS LIVING ON SHOALS

The Great Barrier Reef Zoning Plan (2003) came into force on 1 July 2004 and greatly increased the proportion of habitats in the Marine Park protected from extractive uses, most notably from commercial and recreational fishing. Since the increase in habitat protection was designed to enhance the conservation of marine biodiversity, including fish stocks, all stakeholders are interested in the response of populations to the zoning changes. In 2005–2006, the AIMS Long-term Monitoring Team reported that the most important commercial fish species, coral trout, had increased in abundance by about 50% on mid- and outer-shelf reefs after less than two years of the cessation of fishing. A partnership team from James Cook University reported almost exactly the same result from inshore coral reefs. While it could be assumed that these two studies are representative of all habitats, GBRMPA acting through the Marine and Tropical Sciences Research Facility (MTSRF) requested explicit evidence that the new zoning has enhanced the stocks of fish species such as the iconic red emperor and two species of nannygais found on deep shoal habitats.

Unlike emergent shallow reefs, which are recorded accurately on navigation charts, there is much less public knowledge about deep shoals and the best information is often closely guarded by those who fish them. In the last 12 months, with support from the MTSRF programme, AIMS has been locating shoals using multi-beam swathe mapping in collaboration with James Cook University and establishing the abundance of fish populations on these deep habitats below diving depth using non-destructive video surveys.

Preliminary results show that red emperors and nannygais use a range of shoal habitats at different stages in their life cycle. Sub-adults (below legal capture size) are abundant on low relief epibenthic gardens common on the coastal side of the Great Barrier Reef Lagoon while adults prefer deeper and more structured habitats further offshore. Like all schooling species, these fish are mobile and patchy in abundance, which makes it challenging to assess their abundance in different zones of the Marine Park. Nonetheless, baseline data have been captured in the last 12 months from several large offshore banks in different habitat protection zones where adults are persistent and these populations can now be tracked over time to reveal the effect of fishing upon their local abundance.

Red emperor feeding at a bait station.

ELEMENTAL SIGNATURES REVEAL THE BIRTHPLACE OF FISHES

Bottom-dwelling coral reef fishes live in patchy environments that limit their migration but spawn their offspring into the ocean where currents may disperse them far from their birthplace. The amount of larval exchange and the spatial scale at which it occurs has major implications for the management for fish stocks, particularly the design and distribution of Marine Protected Areas (MPAs) and harvest strategies.

Trace elements, which are present in every environment, provide one means to assess the degree of connectivity among populations of reef fishes. These elements are absorbed by fishes across the gills or gut and accumulated throughout their life span in calcified structures including their otoliths (ear bones). A collaboration between AIMS, Charles Darwin University and the University of Perpignan investigated trace elements in fish from French Polynesia to examine connectivity patterns. The project, supported by the Total Fina Foundation, collected fish from numerous sites on the islands of Tahiti and Moorea and showed that the trace elements in their otoliths were unique to the site of collection. The most distinctive signature was found in fish living in Papeete Harbour because of the presence of anthropogenic pollutants, which provided a natural tag to distinguish between fish born in the Harbour and those born elsewhere. Using this tag, it was found that 40% of the young fish that colonised reefs in Papeete Harbour were recolonising their birthplace; thus indicating limited dispersal, in the order of tens of kilometres. Although the spatial scale of dispersal is an active area of debate in scientific circles, this distance is much less than commonly assumed by most reef fish ecologists and natural resource managers to occur in reef systems. These findings raise an interesting question over the required density of MPA networks, which currently assume that average larval dispersal occurs over scales of hundreds of kilometres.

Many small fishes do not disperse far from their birthplace.

HARD DATA ON SOFT MUDS

In February 2007, heavy rains produced large fresh water flood plumes that carried sediment, nutrients, other pollutants and debris from coastal catchments to the Great Barrier Reef. Satellite images showed a band of floodwaters up to 25 kilometres wide extending along hundreds of kilometres of coast from major rivers between the Whitsunday Islands and Princess Charlotte Bay.

Automated mud-loggers built in the AIMS workshop measured sediment loads in six major rivers simultaneously while AIMS scientists measured water currents, salinity, turbidity, light, nutrients, chlorophyll, plankton and suspended sediment levels in the GBR Lagoon, offshore from the Tully River. These samples and data provided much needed information to help in interpreting the spectacular satellite images of the fresh water plumes.

At Dunk Island, the daily rate of sedimentation averaged more than 250 grams per square metre within the 28-day study period, and two centimetres of mud accumulated in the sediment traps and on parts of the reef within 10 days. Concentrations of dissolved and particulate nutrients originating from the river were also high. Floodwaters blocked 99% of the light reaching corals at 4 metre depths for a period of 10 days. The observed low light would have prevented coral photosynthesis, while the sedimentation rate would have been lethal to some juvenile corals. The mud may ultimately be deposited elsewhere, however, this transport occurs at time scales much longer than the flood event. Consequently the mud is likely to affect coral physiology for significant periods after the flood has subsided. In some areas bleaching of shallow corals occurred, indicating that freshwater was another source of stress on inshore reefs. AIMS scientists also observed sunken logs and other terrestrial debris breaking fragile corals in exposed sections of the reefs.

Although flood plumes are natural events, climate change could worsen their impact by increasing the frequency and possibly intensity of droughts followed by flood events, and thus the quantity of land-based runoff and pollutants making it to the reef.

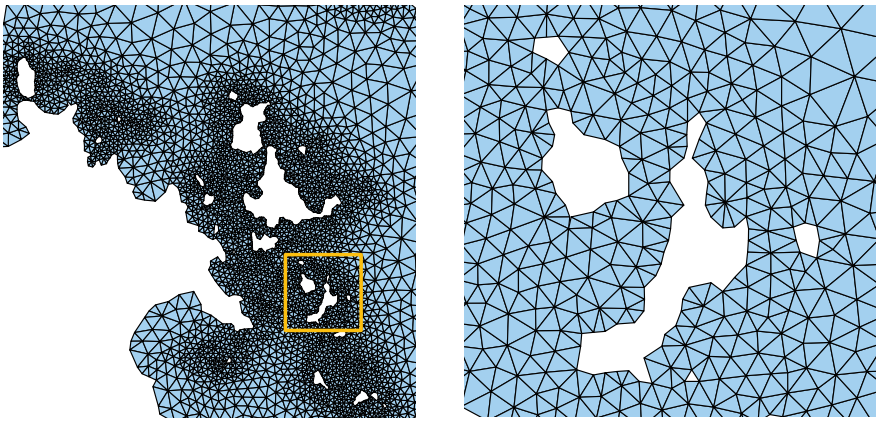
Satellite image of flood plumes between Cape Tribulation and Bowen, February 2007.
Imagery - NASA, processed by M. Slivkoff.

NEW INSIGHTS FROM OCEANOGRAPHIC MODELS

During the past year, two separate projects with external collaborators have enabled AIMS oceanographers to contribute to better understanding of water circulation in the Great Barrier Reef and its implications for biological and chemical processes.

In the first project, in collaboration with modellers from James Cook University, a shelf-scale 3-D circulation model of the Great Barrier Reef was used to simulate the fate of materials discharged at the coast and the residence times of water-borne materials within the Great Barrier Reef shelf sea system. The model results indicate that most materials discharged near the coast travel long distances north and south before leaving the reef system rather than mixing the shorter distance across the continental shelf and into the Coral Sea. A significant proportion of coastal water tracers released in the model remained within the reef system for periods ranging from months to over one year, indicating that biological processes in reef waters and sediments have the opportunity to recycle land-sourced nutrients and other materials many times before they leave the reef.

The second project looked at balancing the contrasting demands of a system as large and spatially complex as the Great Barrier Reef with the details of circulation and mixing at small spatial scales which are important factors in many biological and chemical processes. A new 2-D non-structured grid model of circulation for the Great Barrier Reef has been implemented in collaboration with Belgian modellers from Université Catholique de Louvain. This model, with approximately 1 million grid points for computations, balances detail and effort by having close but irregularly spaced grid points (to 100 m) in reef areas with complicated bathymetry and more widely spaced grid elements (to 2 km) in areas of open water. The new model resolves complex flows around reefs, eddies and flow stagnation points, while capturing large-scale flows in an efficient manner. As this model is further developed, it is expected to bring further realism to computer simulations of fundamental problems such as larval connectivity among reef populations.



View of the unstructured grid at the Whitsunday Islands and zoomed in on Lindeman and Shaw Islands.

Performance at a Glance

AIMS continues to provide relevant, high quality research in support of the protection and use of Australia's tropical marine environment. 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 Ningaloo Marine Park Management Plans*, 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 with 2006–2007 being the last year of this funding period. A summary of our achievements over the last four years is included in the following table. Detail about the Institute's performance in 2006-2007 is included in the Performance Measurement section of this report (see p 45-59).

Overall performance since 2003-2004 is summarised by symbols:

▲ Performance has improved; ■ Performance tracking steadily; ▼ Performance has declined.

Measure	2003-2004	2004-2005	2005-2006	2006-2007	
Shift in resources	First year of the *Research Plan 2003-2006* - resources shifted to priority areas	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	Last year of the triennium - minor restructure of teams including enhanced focus on marine microbiology and symbiosis, in response to the recommendations of an external review of biotechnology	■
Journal publications	73	87	63	84	▲
Citation analysis	Top 1% of specialist organisations making an international impact	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).	'In 2005, the Australian Institute of Marine Science (AIMS) entered the top 1% in the field of Environment & Ecology; this month, AIMS has earned the title of Rising Star in this field' http://incites.com/most_imp/index.html (May 2007). http://incites.com/most_imp/index.html	▲
Number of postgraduate students	56 (not including AIMS staff)	61 (not including AIMS staff)	59 (not including AIMS staff or occupational trainees)	64 (not including AIMS staff or occupational trainees)	■
Recognition	17 editorial boards	20 editorial boards	20 editorial boards	24 editorial boards	▲
Joint ventures and strategic alliances	AIMS@JCU, ATRF, NOAA, CRC Reef	As for 2003-04 plus CoML, RWQPP	As for 2004-05 plus ARC Centre of Excellence for Coral Reef Studies, MTSRF	CRC Reef finished, otherwise as for 2005-2006 plus WAMSI	▲
Collaboration	77% journal publications	81% journal publications	79% journal publications	77% journal publications	■
External revenue	$5.368M	$5.689M	$8.228M	$6.040m	■
Adoption	Various examples provided in the AIMS Annual Report	Various examples provided in the AIMS Annual Report	Various examples provided in the AIMS Annual Report	Various examples provided in the AIMS Annual Report	■
Contracts successfully completed	24 (>100 reports submitted)	37 (107 reports submitted)	43 (93 reports submitted)	38 (92 reports submitted)	■
Policy input	~7 submissions plus various committees	11 submissions plus various committees	4 submissions plus various committees	4 submissions plus various committees	■
Adjunct teaching positions	11	16	16	21	▲
Patents	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 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.	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	New indicator	14	58	19	▼
Commercial arrangements	New indicator	53	90	80	▼
Start-up companies	No new start-ups. Three spin-off companies continued to operate.	No new start-ups. Three spin-off companies continued to operate.	No new start-ups. Three spin-off companies continued to operate.	No new start-ups. Three spin-off companies continued to operate.	■

REPORT OF OPERATIONS

- Certification of Report of Operations
- Report from AIMS Chair, Dr Ian Gould
- Report from AIMS CEO, Dr Ian Poiner
- Introduction
- Contribution to National Research Priority Goals
- Delivery of the *Research Plan 2003-2006*
- Performance Measurement (Achievements against Performance Indicators)
- Role, Legislation and Minister
- Staffing and Structure
- Corporate Governance
- Public Accountability

Australian Government | Australian Institute of Marine Science

TOWNSVILLE | DARWIN | PERTH

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 in a resolution dated 17 September 2007.

Dr Ian Gould
Chair of Council
Australian Institute of Marine Science

Dr Ian Poiner
Chief Executive Officer
Australian Institute of Marine Science

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Report from AIMS Chair, Dr Ian Gould

The end of the 2006–2007 reporting period also marks the end for a triennium funding cycle, the successful completion of the *Research Plan 2003-2006* and the commencement of a new research plan to cover the period 2007–2011. During the year, AIMS has reviewed what has been achieved in recent times and how the Institute is positioned for the future. I take great pleasure in being able to report the significant progress made by AIMS during 2006–2007 and, indeed, over the course of the triennium. Buoyed by these achievements, and passionate about producing relevant, high quality research, AIMS will enter the next funding period with a continuing commitment to providing practical answers to high priority issues and capturing opportunities that will benefit all Australians.

The Institute's capacity for world-class, user-focused marine research was recognised through a number of independent reviews and analyses during 2006–2007, including:

- A citation analysis conducted by US-based Thomson Essential Science Indicators (ESI) that identified AIMS as a "Rising Star" in the field of environment and ecology, indicating a rapid rise in citations in this area within their analysis timeframe;
- The study *Marine Imprint: the crucial impact of 33 years of AIMS research in the public interest*, undertaken by Insight Economics (August 2006), that stated "public good focused research such as that conducted by AIMS generates dramatic regional economic benefits and, at the national level, economic benefits for Australia well in excess of its costs"; and
- A successful *Lapsing Programme Review* by the Australian Government highlighted our effective governance and operational efficiency, and reinforces the value of independent AIMS research to government policy and initiatives, to stakeholder needs and to emerging issues. A particularly

pleasing outcome of the review was the removal of the efficiency dividend on research funding.

The Australian Government demonstrated its commitment to tropical marine science by providing AIMS with a nine percent increase in recurrent funding for the new quadrennium. This includes $5 million in funding to support new initiatives in north-west Australia aimed at helping to ensure environmental protection and sustainable use of marine resources in this prospective oil and gas precinct. Additional funding was provided for increased technological capability for the Townsville site and enhanced winch capacity for the new AIMS research vessel RV *Solander* which will be launched in October 2007.

Through its consultative planning process, the Institute has identified three strategic directions as being critical to meeting the challenges facing Australia's marine ecosystems:

- Understanding tropical marine ecosystems and processes;
- Understanding the effects of global environmental changes upon tropical marine systems; and
- Supporting the sustainable development of tropical marine based industries.

These strategic directions, together with input from stakeholders, an analysis of forward commitments to contracted research, and a review of emerging opportunities, were used to develop the Institute's *Research Plan 2007–2011*. Implementation of the plan will confirm AIMS as Australia's tropical marine research agency, a leader in marine science and an indispensable part of Australia's research and innovation system. It will also position the Institute for continued growth by expanding the range of disciplines in which we operate, by growing our technological capability, by broadening our user base and perhaps by extending the geographical application of our science.

During the reporting period, the Institute implemented a successful strategy to balance the operating budget and ensure a solid financial base for the next four years. These measures, combined with increased appropriation funding resulting from our successful new policy proposal and the write back of efficiency dividend measures, mean that AIMS will achieve a balanced budget in 2007–2008 and into the future. A continued commitment to co-investment in research projects with federal and state government departments and research agencies, universities and industry stakeholders will ensure maximum leverage for AIMS' capital and in-kind investments.

Much of the Institute's operational and financial planning is, and has always been, influenced by the need to respond to the changing needs of our stakeholders and new opportunities identified while working at the leading edge of science research. While the Institute has developed a strategically relevant and achievable research plan for 2007–2011, the delivery of much of what is planned relies heavily on co-investment by research partners. Financial forecasts for the quadrennium include external revenue and cost recovery targets based on known and expected income streams. Management is well aware of the risks and have included appropriate flexibility in the budget strategy to enable costs to be reduced should external contracts not eventuate, along with some capability to respond to new projects.

Marine ecosystems play a vital role in Australia's future both socially and economically. Raising the profile of marine science in Australia will be the first step toward gaining support for ongoing and enhanced Australian Government funding for AIMS into the next quadrennium. Heightened awareness of the value of marine research amongst our industry partners and other stakeholders will also help us to attract the funds to continue to grow through co-investment.

The AIMS Council has worked hard with management during the year and I publicly acknowledge Council members for their contribution to the Institute's strategic governance. Professor Peter Høj, whose role in the development of Australian science as CEO of the Australian Research Council aided the setting of strategic directions, resigned from the Council following his appointment as Vice Chancellor of the University of South Australia. Council congratulates Professor Høj on this appointment and his efforts and contributions to AIMS over the past two and a half years were greatly appreciated. On 10 May 2007, AIMS welcomed Council member Professor Sandra Harding, Vice Chancellor of James Cook University, as the James Cook University nominated representative on the Council.

Our staff have again contributed their expertise, commitment and leadership in carrying out the work of AIMS efficiently and effectively for the benefit of all Australians and the wider marine science community. All AIMS staff are thanked and congratulated for their efforts in scientific research, community consultation, training, communication and transferral of results, science support and administration.

It is appropriate to recognise and thank some long-serving AIMS staff who have recently retired. Mr Peter Willers, as General Manager made a significant contribution to the efficient operation of AIMS and, just prior to his retirement, played a key role in gaining support for our new research vessel, RV *Solander*. This year also saw the retirement of Dr David Barnes, Dr Terry Done, Dr Charlie Veron and Dr Eric Wolanski after long and productive careers at AIMS. All retire as nationally and internationally renowned scientists in their respective disciplines and fields of science. Council acknowledges their significant individual contributions to AIMS, congratulates them on their achievements and looks forward to fruitful relationships with each of them in their new roles as 'AIMS Associates'.

Photo: AIMS Long-term Monitoring Team

Report from AIMS CEO, Dr Ian Poiner

This year represents the culmination of a four-year, $124.6 million strategic research program, framed by the National Research Priorities, which has provided Australia with information and tools to support the sustainable management and use of our tropical marine resources. AIMS' scientific achievements continued to attract national and international attention during 2006-2007, emphasising the Institute's world-class expertise, its commitment to excellence in scientific research and the value of our collaborative networks. With 2006 returning the highest total annual scientific publication output recorded in the last five years, it is clear that AIMS has a deserved reputation for world leadership in tropical marine science.

SOME KEY SCIENCE ACHIEVEMENTS FOR THE YEAR

Identification of the threat to coral larvae posed by pesticides

AIMS researchers demonstrated that corals face an additional threat in the form of pesticides running off the land and have developed a suite of bio-indicators for changes in water quality. These results have added significantly to our understanding of the relationships between water quality and the condition of inshore coral reefs and have contributed to the shift in the public discourse about water quality on the Great Barrier Reef (GBR) (see Highlight, p 12).

Optimal water temperature for coral growth identified

Coral core analysis indicated that massive hard corals grow best up to an optimal temperature of 26.7 ºC but growth is affected when temperatures exceed this point. Possible causes of the observed and unexpected decline in coral growth since 1988 are now being investigated (see Highlight, p 5).

Investigations into the capacity of corals to adapt to climate change
New, highly sensitive, genetic methods developed at AIMS are allowing researchers to better understand the potential of corals to adapt to changes in their environment. This work is particularly relevant and timely given predicted sea water temperature rises associated with global climate change (see Highlight, p 7).

Great Barrier Reef Seabed Biodiversity Project completed
This collaborative project, aimed at mapping habitats and associated biodiversity across 210,000 km² of poorly known shelf seabed across the GBR World Heritage Area, has already discovered more than 50 species that are new to science, with further taxonomic work expected to reveal hundreds of others. The information is being used to assess conservation goals, fishery risks and management tools, and to help ensure human activities are conducted in a sustainable manner (see Highlight, p 8).

RESEARCH PERFORMANCE ASSESSMENT

Performance measurement is a key element of the Institute's culture and is the basis for our case for support from governments, external stakeholders and clients. The Institute continued its programme of regular external expert reviews designed to assess the performance of all AIMS research teams. These reviews provide us with useful feedback to inform our management and planning processes. They are also key components of the AIMS response to the *Quality and Accessibility Framework for Publicly Funded Research Agencies*.

During the year, AIMS completed its *Research Performance Assessment* with the final four expert reviews. Overall, the result was good, with the Institute considered by reviewers to have demonstrated a strong performance in the key areas of science quality and user impact (see Appendix 6). The reviews provided essential input for the development of our new *Strategic Directions* and *Research Plan 2007-2011* and helped us to identify four research themes for focus and growth:

- Assessing and using marine biodiversity;
- Measuring water quality and ecosystem health;
- Responding to climate change; and
- Understanding microbes and marine symbioses.

The first three areas are enduring themes from the last research plan, albeit with updated objectives and some research activities discontinued. The fourth area, understanding microbes and marine symbioses, is new and will be used as the mechanism to develop our human and infrastructure capability in the rapidly emerging field of marine microbiology, including novel molecular and genetic tools.

AIMS DELIVERS THROUGH A COMMITMENT TO COLLABORATION

AIMS continues to demonstrate leadership in marine science, and ensures maximum impact and uptake of its research findings, through its continuing focus on partnerships with selected research providers and the users of its marine research outputs. Key examples of this commitment during 2006-2007 include:

- **Securing Funding for a GBR Ocean Observing System**
  An AIMS-led consortium was successful in gaining support for the implementation of the Great Barrier Reef Ocean Observing System (GBROOS), Australia's first

coast and continental-shelf ocean observing system. Initial funding of $5.156 million will be provided from the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS) with the Queensland Government providing an additional $4.212 million. These cash injections will be supported by in-kind contributions from the consortium research providers (AIMS' in-kind contribution is $6.133 million, other providers' contributions amount to $1.915 million) giving a total of $17.416 million in investment. A key element of Australia's new Integrated Marine Observing Strategy, GBROOS is an observation network that seeks to understand the influence of the Coral Sea on continental shelf ecosystems in north-east Australia, including the Great Barrier Reef Marine Park. The Integrated Marine Observing System (IMOS) is valued at $94 million over four years (2007–2011).

GBROOS also includes the development and application of sensor networks that utilise leading edge technology to monitor a body of water via wireless, interconnected sensors that collectively sense and stream data to a central data aggregation point. The sensors are 'smart' in that they can change the way that they sample depending on the environmental conditions, such as sampling more often when the temperature rises above a pre-set level. Wireless sensor networks will be built at each of the four GBR Island Research Stations (lizard, Orpheus, Heron and One Tree) to collect data related to the interaction of heat and light in coral bleaching, and another network will be built on AIMS weather towers offshore from Townsville to monitor the frequency of up-welling from the Coral Sea.

The data gathered through these initiatives will have significant impact on our understanding of environmental change at both the global and GBR level and will also contribute to other international programs.

- **The Launch of the Western Australian Marine Science Institution**
  In May 2007, the Premier of Western Australia, the Hon. Alan Carpenter MLA, launched the Western Australian Marine Science Institution (WAMSI), a $21 million, five year marine science joint venture to underpin the conservation and sustainable management of Western Australia's marine environment and resources. AIMS will join fellow Australian Government organisations CSIRO and the Bureau of Meteorology, the West Australian State Government Departments of Environment and Conservation, Fisheries, and Industry and Resources, the WA Museum, the Western Australian universities and Western Australian Global Ocean Observing Systems Inc, as a core party in the venture. Each of the parties will contribute specialist skills and capabilities to the venture with AIMS' role primarily focused on providing expertise in coral reef systems and oceanography and the provision of ship-time on our vessels.

- **The Reef Water Quality Protection Plan Marine Monitoring Programme**
  The second year of monitoring under this programme has established a useful baseline for assessing future changes in the water quality and coral community characteristics on the inshore reefs of the Great Barrier Reef. Implemented in collaboration with the GBRMPA, two years of monitoring have strengthened the view that the processes shaping biological communities are complex and are

likely to be based on local interactions of various factors including water quality, physical disturbance and climate change.

After only two years of sampling the data needs to be interpreted with caution as it is unlikely to have captured the full range of natural variability inherent in these systems. However, some notable results were achieved and long-term monitoring under the Reef Plan MMP, as well as complementary AIMS process-oriented research of the environmental implications of water quality on Great Barrier Reef ecosystems, is improving our understanding of changes in the GBR that may be attributable to the performance of the Reef Plan.

- **Marine and Tropical Sciences Research Facility**
  An important achievement for the year was the Institute's successful completion of our contribution to the first MTSRF *Annual Research Plan*. It was pleasing to see AIMS reports were acknowledged by MTSRF as being of a particularly high standard and we will continue to play a leading role in this research program.

AIMS RESEARCHERS CONTINUE TO INFLUENCE RESEARCH AND POLICY

In February 2007 the United Nations Foundation and Sigma Xi, the Scientific Research Society, released *Confronting Climate Change: Avoiding the Unmanageable and Managing the Unavoidable* - the final report of the Scientific Expert Group on Climate Change and Sustainable Development. The report, prepared for the United Nations Commission on Sustainable Development, outlines a roadmap for preventing unmanageable climate changes and adapting to the degree of change that can no longer be avoided. Two years in the making, the report was written by a panel of eminent scientists from around the world. Dr Janice Lough, a climatologist from AIMS, was the only Australian member of the panel.

THE YEAR AHEAD

In 2007–2008, AIMS will commence the implementation of its *Research Plan 2007–2011*. Over the next four years, we plan to expand AIMS' capabilities to deliver high quality research, respond to emerging marine science needs in north-western Australia, increase our capacity in marine microbiology, respond to the urgent need for understanding of the impacts of climate change on tropical marine systems and their responses, and increase our ability to collaborate in tropical marine science and training with leading universities and other research agencies. In doing so, we will ensure that AIMS maintains its ranking in the top 1% of the world's research institutions in the fields of environment and ecology and plant and animal science.

We will maintain and build on our existing partnerships through AIMS@JCU, ATRF, WAMSI and the ARC Centre of Excellence for Coral Reef Studies. This will enhance the ability of AIMS science teams to continue their research in the Great Barrier Reef World Heritage Area and Ningaloo Reef Marine Park, and increase our research in north-western Australia. We will add further capacity by formalising a new relationship with Geosciences Australia (GA).

AIMS will lead the consortium implementing the Great Barrier Reef Ocean Observing System and will also establish a new Centre for Marine Microbiology and Genetics, a unique biotechnology facility focused on the delivery of integrated marine microbial and

genetics research. The establishment of the AIMS Data and Knowledge Centre as a leading provider of coral reef data and information will ensure that all research information generated by the Institute is readily accessible by our collaborators and stakeholders. The commissioning of RV *Solander*, a state-of-the-art 35m vessel, will provide AIMS and Australia with enhanced marine research capability.

The challenge for AIMS over the next few years will be to secure additional funding to maintain joint ventures such as AIMS@JCU; continue to develop our capability in the rapidly emerging field of marine microbiology; and, to enhance our engineering capability to allow us to be part of the current revolution in novel technologies to measure, monitor and visualise the ocean.

Providing a clear picture of how we measure the performance of the Institute and assess the performance of our staff, together with a continued focus on Key Performance Goals and milestone-based reporting systems, will lead to continued improvement of the Institute's performance.

With the retirement of a number of experienced high profile scientists this year, the new quadrennium will be a time of renewal for AIMS. A number of new positions will be established during 2007–2008, including senior appointments in microbiology, oceanography and coral reef systems, and seven new post-doctoral fellows.

In addressing these challenges, we will reaffirm AIMS as Australia's tropical marine research agency and an indispensable part of Australia's research and innovation system. We will also position the Institute for continued growth, through expanding our disciplinary and technological capabilities, broadening our user base and/or extending the geographical application of our science.

DEVELOPMENTS SINCE 30 JUNE 2007

On the 22 August 2007, BHP Billiton Pty Ltd announced that it would provide $3.4 million in funding over the next four years to support the Australian node of CReefs, the coral reef component of the international Census of Marine Life (CoML), which is a global network of hundreds of researchers in more than 80 nations engaged in a 10-year scientific initiative to assess and explain the diversity, distribution, and abundance of life in the oceans.

Through a partnership brokered by the Great Barrier Reef Foundation, Australian and international researchers, together with a number of BHP Billiton staff members involved in an employee participation program, will survey three Australian reef sites - at Heron and Lizard Islands on the Great Barrier Reef and Ningaloo Reef in Western Australia - to document the diversity of life on Australian coral reefs. The world's first comprehensive Census of Marine Life — past, present, and future — will be released in 2010.

Amendments to the AIMS Act, bringing the Institute into closer alignment with the board best practice principles outlined in the Uhrig Review, have been proclaimed by the Governor General and came into effect on 10th September 2007.

Photo: AIMS Long-term Monitoring Team

Introduction

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 multidisciplinary research teams working in the areas of: biodiversity assessment; environmental change and impacts; status and trends of marine ecosystems; sustainable coastal development; water quality of the Great Barrier Reef World Heritage Area (GBRWHA); and tropical aquaculture. During this reporting cycle AIMS reorganised its team structure to better deliver priority research outputs (see p 45-46).

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). AIMS' research also makes a significant contribution to the National Research Priorities.

Photo: AIMS Long-term Monitoring Team

Contribution to National Research Priority Goals

AIMS mission aligns strongly with the National Research Priorities and the majority of the AIMS budget is dedicated to research supporting the National Priority of achieving "An Environmentally Sustainable Australia". Within this Priority, seven goals have been articulated (see below) and the Institute's research portfolio matches four of them. We also recognise secondary delivery to some of the NRP Goals required to transform Australian industry and society.

The National Priorities and their subordinate but enabling goals are shown below. Below this, a table maps connections between our Research Teams and the relevant Goals with the strength of the match shown as highly relevant (■), very relevant (■) or relevant (■). Finally, we illustrate our delivery to the NRP through one example from each of the teams in biodiversity assessment, biodiversity use, water quality, climate change, and marine microbiology.

NATIONAL RESEARCH PRIORITY GOALS

(For details see Appendix 2.)

A. An Environmentally Sustainable Australia

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

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

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

D. Safeguarding Australia

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

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 (2006-2007)							
Biodiversity assessment and trends							
Environmental change and impacts							
Biodiversity sustainable use							
Water quality and ecosystem health							
Microbiology and biodiscovery							
Integration and synthesis							

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 131-133.

EXAMPLES OF NATIONAL RESEARCH PRIORITY OUTCOMES

Great Barrier Reef Seabed Biodiversity Project

Output

In 2006-2007, the last samples collected from almost 2,000 sites representing more than 210,000 km^2 of the seafloor of the GBR Lagoon were sorted and the results collated from the laboratories of the four collaborating organisations (AIMS, CSIRO, QDPI&F, QM). These results (comprising more than 140,000 records of distribution and abundance) were then converted by statistical modelling of the biophysical relations observed at sampling sites to maps of distribution and abundance for many hundreds of species and these were combined to reveal ecological communities defined by their co-occurrence in similar physical habitats.

Outcome 1

The resultant maps were used in an independent project funded by MTSRF in 2006-2007 to assess the performance of the GBR Zoning Plan (2003) against its objective of protecting biodiversity. Although the spatial boundaries of the assemblages defined by the GBR Seabed Project varied from those of the Bioregions defined by the GBRMPA Representative Areas Programme, the analysis showed that the new zoning plan has met or exceeded the planning criterion of preserving at least 20% of unique biological assemblages within the Marine Park.

Outcome 2

The resultant maps of biodiversity were analysed against maps of trawl effort as part of the GBR Seabed Project, which was co-funded by FRDC, to determine the degree of risk to benthic invertebrates and demersal fish arising from present levels of trawling within the World Heritage Area (WHA). Although this analysis is not yet finalised, preliminary results have indicated few species (other than prawns) have a high degree of exposure to untrawled (i.e. most species found on trawl grounds also have abundant populations in untrawled habitats). Further analysis in 2007 is expected to inform the State-Commonwealth process currently in progress, where the *Environment Protection and Biodiversity Conservation Act 1999* requires proof of the ecological sustainability of all Australian fisheries exporting seafood.

Outcome 3

The resultant maps of biodiversity have produced the first comprehensive baseline of seafloor communities for the GBR Marine Park and one of the first of its kind for any large section of seafloor on any continental shelf. Already the results have been used to show the decadal stability of deep water seagrass beds mapped in the mid-nineties by QDPI&F during the first life of CRC Reef. In the future, this baseline could show the impacts (if any) arising from the warming of shelf waters by global climate change.

Outcome 4

The resultant maps of biodiversity can only be based on species collected with enough frequency and contrast in abundance to be able to generate reliable predictions based on observed biophysical relationships. Among the rarer forms, researchers already have documented new records for Australia and found species entirely new to science.

Over many years, as taxonomists trawl through collections archived in the Queensland Museum, their research will increase our knowledge of the marine benthic biodiversity of the WHA.

A5 A7

Domesticated prawns add value to Queensland aquaculture

Output

Working as part of an industry-led research consortium, supported by FRDC, AIMS researchers have selectively bred and reared a new generation of domesticated Tiger prawns. These young prawns will now be grown out by industry partners to produce the next batch of spawners from which a fifth generation will be reared in a year's time. As part of the process, AIMS was able to show industry that the third generation of captive prawns retains commercially viable egg production.

Outcome

This is the fourth generation of animals bred in captivity stock. With the continued success of this captive breeding programme, it becomes increasingly likely that the prawn aquaculture industry in Queensland will be liberated soon from its continual dependence on harvesting gravid females from wild populations and thus be able to reduce its commercial exposure to the vagaries of uncertain supply. While transfer to a brood stock pool dominated by spawners from inbred lineages should improve productivity and profitability in the aquaculture sector, it should also release pressure on wild stocks and reduce conflict in the catching sector.

A2 A5

Effects of water quality on reef condition

Output

After a sustained effort over six years, supported by the CRC partnership, AIMS researchers have generated much new knowledge about the impacts of water quality upon coral reef processes and developed composite indicators for assessing inshore water quality based on a range of biological indicators.

Outcome

The most tangible outcome of this research is the GBR Water Quality Protection Plan, funded jointly by the Australian Government and the Queensland Government, which is a decadal plan that aims to halt and reverse declining water quality in inshore sections of the GBR Lagoon. While AIMS does not claim any credit for this major initiative, the information provided by its researchers was taken up strongly by the key decision makers at the time.

A1 A5 C2

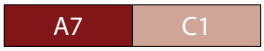
Hidden diversity discovered inside corals

Output

Researchers using new techniques have discovered that most coral species contain multiple micro-algal symbionts in their tissues, although only one strain dominates the symbiont population at any point of time.

Outcome

This discovery represents a paradigm shift in scientific thinking that makes it more feasible to consider the potential of the 'switching hypothesis' as an adaptive response of corals to the stress of sudden changes in water temperature. With increased respectability for the hypothesis, the least that can be expected is that more students will be prepared to undertake research into the deeper mechanisms underlying clade switches. More concentrated effort in this area will almost certainly lead to break-throughs in understanding of the molecular and genetic basis of the coral-algal symbiosis. This may either confirm or deny the current pessimism about the ability of the symbiosis to survive rapid climate change with major consequences for the world's coral reefs but it may also generate new knowledge about shared metabolic pathways that can be applied in a completely new area.



Coral disease linked to warmer sea temperatures

Output

Researchers have discovered that high water temperatures are associated with increased coral disease; however, disproportionate expression on reefs with high coral cover suggests that some density-dependent process is involved. This could be due to increased likelihood of transmission between host corals, changes in susceptibility caused by different levels of genetic diversity of the host population, or to increased virulence of pathogenic microorganisms.

Outcome

Even before the mechanism of this effect is understood, models of coral populations can be altered to include an empirically derived density-dependent term to produce more accurate forecasts of risk and resilience in coral communities under threat. This will provide natural resource managers with better tools to support decisions about which reefs deserve greatest protection within a network.

On the 30 April 2007 AIMS honoured one of Australia's most respected marine scientists and environmental advocates when Dr Jim Peacock, Australia's Chief Scientist dedicated the South Wing of the Institute's Townsville facility as the Joe Baker Wing. This acknowledged Dr Baker's contribution to the development of AIMS as an internationally renowned marine research institution. Dr Baker played a pivotal role in the development of the Sir George Fisher Centre at James Cook University before serving as Director of AIMS from 1985 to 1992, helping to establish Townsville as the global centre of tropical marine science. In his 40 years in science, he has been an inspirational leader of the Australian marine science community, has mentored many key figures in Australian science, and has contributed to our increased knowledge of the plants and animals living in Australia's marine territory. The ceremony was well attended and Dr Baker gave a very moving and inspirational response.

Photo: J. de Rooy

Photo: AIMS Long-term Monitoring Team

Delivery of the Research Plan 2003-2006

The current reporting period was a bridging year between research described in AIMS *Research Plan 2003-2006* and new research developed to begin at the start of the next funding period, July 2007. During this year AIMS strengthened major collaborative research programmes, consolidated its capabilities to allow a shift to new areas of research and completed research still underway from the 2003-2006 plan. Thus, in addition to reporting annual progress from 2006-2007, it is also timely to assess our performance over the last four years.

Following restructure of the Institute's research programme into three disciplinary-based Research Groups, the *Research Plan 2003-2006* was to be delivered by nine multidisciplinary Research Teams that committed to a total of 78 research goals articulated in the plan.

Ignoring changes in the team structure (see p 46), AIMS scientists and their collaborators delivered tangible outputs (ranging from peer-reviewed publications to one spin-off company) against 85% of these 78 initial goals. Just under half (47%) of the specific research goals anticipated in July 2003 will be carried across to the next research plan because they involve long-term activities such as monitoring the health of the Great Barrier Reef.

A brief statistical analysis of triennium performance by team is shown in the tables on page 44 with each analysis supported by three highlights of output.

Team	Number of Research Goals	Number of Goals producing outputs	Number Concluded	Number Ongoing	Selected Highlights
Conservation and Biodiversity Group					
Biodiversity Assessment in New Areas	10	10	4	6	■ Great Barrier Reef Seabed Biodiversity Project ■ Coral ID ■ Benthic surveys (Lord Howe, Ningaloo, Scott Reef, Rowley Shoals)
Climate Change (became part of "Environmental Change & Impacts" in 2005–2006)	7	5	3	4	■ Reconstruction of 300 years of rainfall history for tropical Queensland ■ Impact assessment of 1991 Gulf War on Kuwaiti coral reefs ■ Contributed to IPCC Fourth Assessment Report
Risk and Recovery (became part of "Environmental Change & Impacts" in 2005–2006)	11	10	5	6	■ Documented response and resilience of GBR corals to 2004 bleaching ■ Identified physical controls of coral bleaching ■ Determined genetic connectivity of brooding coral populations
Status and Trends	12	12	8	4	■ Status reports for the Great Barrier Reef ■ Baseline surveys of Marine National Parks in Commonwealth waters ■ Status reports for global coral reefs & a report on Tsunami impacts
Coastal Processes Group					
Sustainable Coastal Development in Northern Australia	11	6	10	1	■ Darwin Harbour study ■ Assessed the ecological impact of produced formation water discharged by oil drilling ■ Developed a nutrient budget for Nambian Village, China
Water Quality in the Great Barrier Reef World Heritage Area	7	6	2	5	■ Major contributions to the CRC Catchment to Reef Programme ■ Major contributions to the GBR Water Quality Protection Plan ■ Development and application of an ecohydrology model for GBR ecosystems
Marine Biotechnology Group					
Bioactive Molecule Discovery (became part of "Biomolecular Resources and Innovation" in 2004–2005)	4	4	2	2	■ Influenced Queensland and Commonwealth policy for biodiscovery ■ Identified novel compounds with herbicidal activity for NuFarm Pty Ltd ■ Discovered at least five other natural products with patentable properties
Bio-Innovation (became part of "Biomolecular Resources and Innovation" in 2004–2005)	10	7	6	4	■ Spun off a start-up company now called "Cleveland Biosensors Pty Ltd" ■ Developed new methods for detecting seafood toxins ■ Identified new species of marine stingers causing *Irukandji* syndrome
Tropical Aquaculture	6	6	1	5	■ Bred and transferred a fourth generation of selectively-bred prawns to industry ■ Dramatically improved the survival of larval lobsters under hatchery conditions ■ Demonstrated the potential for sponge farms near two indigenous communities

Performance Measurement [Achievements Against Performance Indicators]

The quality, efficiency and effectiveness of AIMS' research is assessed against performance indicators that have been agreed between the Australian Government and the Institute as part of the 2004-07 Triennium Funding Agreement (see Appendix 3). This section of the report describes AIMS' achievements against those indicators and demonstrates the contribution of the Institute's efforts during the year to AIMS Outcome which is agreed with the Australian Government as part of the outcome-output framework (see figure below).

Outcome

Enhanced scientific knowledge supporting the protection and sustainable development of Australia's marine resources

Output

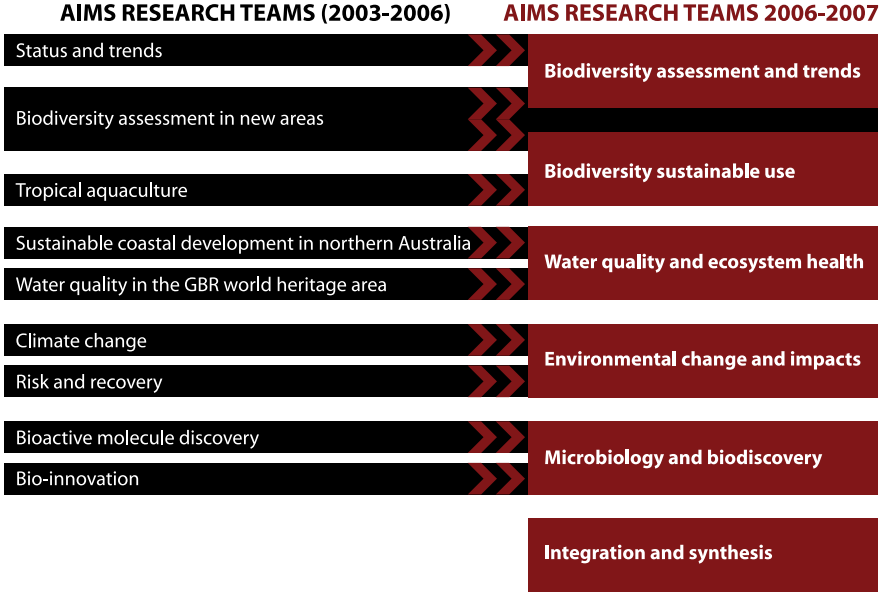
New knowledge for users of marine resources

NEW KNOWLEDGE AND COLLABORATIVE R&D

Shift of resources to priority areas

During the last four years, AIMS has continued to monitor feedback on its performance and to evaluate new opportunities against the consequences of changing priorities. Significant additional input has been provided during this period by a series of rolling reviews of research quality and impact of AIMS research teams by expert panels of external professionals (see Appendix 6).

In December 2005, an expert panel was convened to consider the performance of the merged biotechnology teams by then known as the Biomolecular Resources and Innovation (BRI) Team. A major recommendation of the BRI Review was that molecular and genetic skills in marine biotechnology should be redirected to the environmental sciences, notably the water quality and climate change teams. AIMS senior management followed the recommendation by restructuring the seven teams to six for the last year of the triennium, as shown below.



After some skill sets were distributed to the environmental science teams, the BRI team was renamed Microbiology and Biodiscovery to focus remaining effort upon microbial sciences, which the AIMS Strategic Science Team had identified as an essential growth area for the Institute. The biodiscovery component was focused on maintaining and enhancing the Bioresources Library, a unique collection of 20,000 extracts from macro- and micro-organisms, that underpins all past and present biodiscovery research at the Institute. The Tropical Aquaculture team absorbed tasks on the dynamics of wild populations. The two teams in the Coastal Processes Group were also merged to increase effort upon water quality issues. A new team called Integration and Synthesis was created to combine outputs from different teams or activities to create a third value-added stream of products. In addition, this team was charged with completing tasks identified in the *Research Plan 2003-2006*.

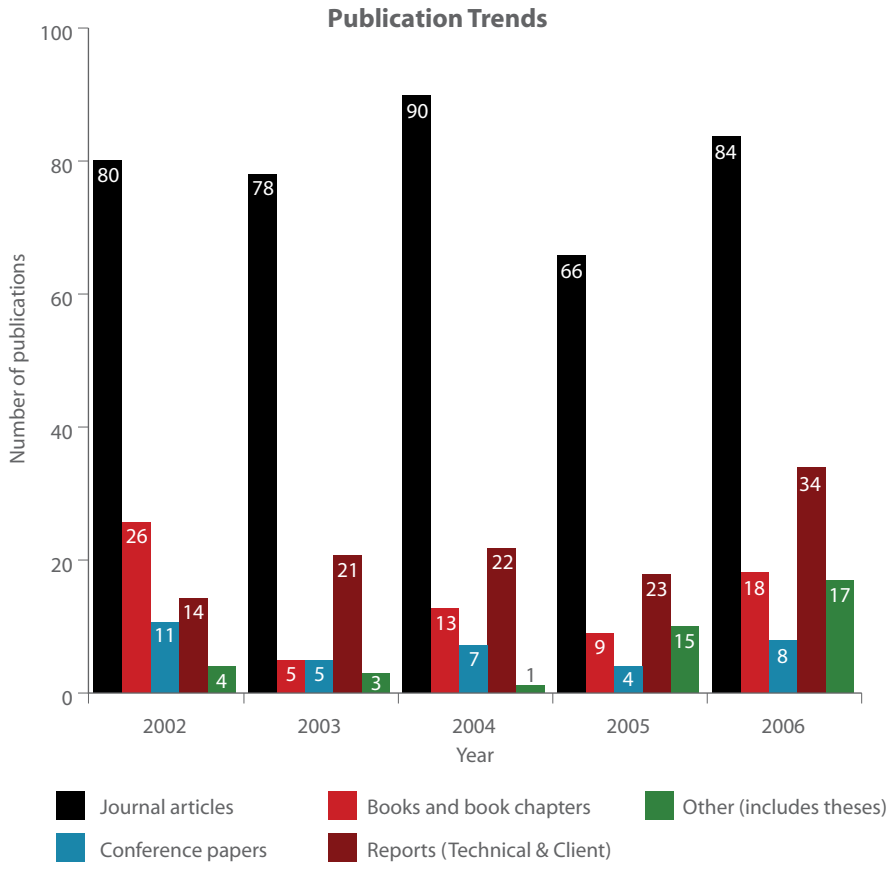
Scientific Publications

In the last Annual Report, the Institute noted a decline in 2005 in the output of journal publications by its scientists in the peer-reviewed literature. The latest figures from 2006 show the restoration of normal levels in this indicator, which also coincided with the

highest total annual output recorded in the last five years (even discounting four Honours theses, which have not always been counted in past statistics). The latest figures suggest that AIMS scientists will continue to perform strongly against international benchmarks (see Citation Analysis, p 49).

Given the long lead-time on most publications, the most likely explanation of the dip in 2005 is that it represents a mid-term hiatus in outputs reflecting the deferred start up period of the triennium, when some effort is inevitably devoted to new field and laboratory studies without immediate return. Similarly, the strong production in 2004 (second highest total annual output over the five years) probably reflects the completion and final reporting of tasks from the 2000–2003 triennium.

While journal articles show no long-term trend (other than the possible cycles discussed above), client reports and theses have increased steadily over the last five years (see graph). The increased number of joint ventures (see p 52) is likely to explain both trends.



During the year, AIMS researchers made continuing contributions to our core areas of biodiversity, water quality, climate change, and the emerging area of microbiology as exemplified by the following selection of publication outputs from these areas (full list in Appendix 4):

- Berkelmans R & van Oppen MJH (2006) The role of zooxanthellae in the thermal tolerance of corals; a 'nugget of hope' for coral reefs in an era of climate change. Proceedings of the Royal Society of London B Biological Sciences 237: 2305–2312
- Boyett H.V., Bourne DG, Willis BL (2007) Elevated temperature and light enhance progression and spread of black band disease on staghorn corals of the Great Barrier Reef. Marine Biology 151: 1711–1720
- Bradshaw CJA, Mollet HF, Meekan MG (2007) Inferring population trends for the world's largest fish from mark-recapture estimates of survival. Journal of Animal Ecology 76: 480–489
- Bruno JF, Selig EF, Casey KS, Page CA, Willis BL, Harvell CD, Sweatman H, Melendy AM (2007) Thermal stress and coral cover as drivers of coral disease outbreaks. PLoS Biology 5(6): e124 doi:10.1371/journal.pbio.0050124
- Cheal AJ, Delean S, Sweatman H, Thompson AA (2007) Spatial synchrony in coral reef fish populations and the influence of climate. Ecology 88: 158–169
- Fabricius KE (2006) Effects of irradiance, flow, and colony pigmentation on the temperature microenvironment around corals: implications for coral bleaching? Limnology & Oceanography 51: 30–37
- Lough JM (2007) Tropical river flow and rainfall reconstructions from coral luminescence: Great Barrier Reef, Australia. Paleoceanography 22: PA2218
- Montgomery J, Jeffs A, Simpson SD and Meekan MG (2006) Sound as an orientation cue for the pelagic larvae of reef fishes and decapod crustaceans. Advances in Marine Biology 51:144–196
- Mora C, Andrefouet S, Costello MJ, Kranenburg C, Rollo A, Veron JEN, Gaston KJ, Myers RA (2006) Coral reefs and the Global Network of Marine Protected Areas. Science 312: 1750–1751
- Ulstrup KE, Berkelmans R, Ralph PJ, van Oppen MJH (2006) Variation in bleaching sensitivity of two coral species across a latitudinal gradient on the Great Barrier Reef: the role of zooxanthellae. Marine Ecology Progress Series 314: 135–148
- van Oppen MJH & Gates RD (2006) Conservation genetics and the resilience of reef-building corals. Molecular Ecology 15: 3863–3883
- Vigliola L, Doherty PJ, Meekan MG, Drown D, Jones ME, Barber PH (2007) Genetic identity determines risk of post-settlement mortality of a marine fish. Ecology 88: 1263–1277
- Willis BL, van Oppen MJH, Miller DJ, Vollmer S, Ayre DJ (2006) The role of hybridization in the evolution of reef corals. Annual Reviews of Ecology, Evolution and Systematics 37: 489–517
- Wooldridge S, Brodie JE, Furnas MJ (2006) Exposure of inner-shelf reefs to nutrient enriched runoff entering the Great Barrier Reef Lagoon: Post-European changes and the design of water quality targets. Marine Pollution Bulletin 52: 1467–1479

AIMS researchers also gave more than 100 oral presentations on these and other subjects to domestic and international audiences in 2006–2007.

Citation Analysis

AIMS research papers continue to be cited strongly by peers publishing in the international scientific literature. During the reporting period, independent analysis by Thomson Scientific (Essential Science Indicators) identified AIMS as a 'Rising Star' in the field of Environment and Ecology with the following quote in May 2007:

> "In 2005, the Australian Institute of Marine Science (AIMS) entered the top 1% in the field of Environment & Ecology; this month, AIMS has earned the title of Rising Star in this field'."
> (http://in-cites.com/most_imp/index.html)

Recognition by Peers (Prizes and Invitations)

During the year, one of our retiring scientists, Dr Eric Wolanski, published his 300th manuscript (including books) with the book, *The Environment in Asia Pacific Harbours*. The UN Atlas of the Oceans featured this book on its web site. Similar treatment was accorded to *Status of Coral Reefs of the World* (2004), edited by Dr Clive Wilkinson, who recently retired from AIMS. Both references can be found at http://www.oceansatlas.org/id/108325.

Awards and Prizes

- Stuart Kininmonth awarded 'Best presentation in the open category' at the Annual Science Conference of the Australian Coral Reef Society.

During the reporting period, the following students working with AIMS researchers were honoured with prizes:

- David Abrego awarded 'Best Oral Presentation by a Young Scientist' at the European Meeting of the International Society for Reef Studies, Bremen, Germany.
- Piers Ettinger-Epstein awarded 'Best Oral Presentation by a student' at the Annual Science Conference of the Australian Coral Reef Society.
- Tim Cooper awarded the 'Ron Kenny Prize for a highly commended presentation' at the Annual Science Conference of the Australian Coral Reef Society.
- Jana Guenter awarded 'Best poster by a student' at the Annual Science Conference of the Australian Coral Reef Society.

Invited Lectures

AIMS researchers were invited to address 11 domestic or international audiences:

- Chris Battershill – 12th International Symposium on Marine Natural Products, Queenstown, New Zealand.
- Chris Battershill –Australia-Japan Marine Forum, Yokohama, Japan.
- Chris Battershill – Northern Territory Bioscience Forum, Darwin.
- Chris Battershill –Australasian Aquaculture, Adelaide.
- Eric Wolanski – MIMA International Conference and Exhibition on Mangroves of Indian and Western Pacific Oceans, Kuala Lumpur, Malaysia.
- Katharina Fabricius –Max Planck Institute for Marine Microbiology, Bremen, Germany.
- Libby Evans-Illidge –Australasian Aquaculture, Adelaide.
- Madeline van Oppen –University of Amsterdam, Netherlands.
- Madeline van Oppen –Kewalo Marine Laboratory, Hawaii.

- Madeline van Oppen –Hawaii Institute of Marine Biology, Hawaii.
- Sven Uthicke – Max Planck Institute for Marine Microbiology, Bremen, Germany.

Plenaries

AIMS researchers were invited to deliver the following keynote or plenary addresses:

- Eric Wolanski – The application of ecohydrology for sustainable development and management of mangrove-dominated estuaries. Keynote talk at ICEMAN 2006 mangrove conference, Kuala Lumpur, 22 August 2006.
- Eric Wolanski – Protective functions of coastal forests and trees against natural hazards. Keynote talk at the FAO Regional Technical Workshop, Coastal protection in the aftermath of the Indian Ocean tsunami: what role for forests and trees? Khao Lak, Thailand, 27–31 August 2006.
- Terry Done – Science in support of adaptive community based resource management of coral reefs. Plenary address at the Coastal Zone Asia Pacific Conference (CZAP 2006) Linking People and the Coasts, Indonesia, August 29 – September 01, 2006.
- Terry Done – Monitoring and models in coral reef management. Plenary address at the Biodiversity of Coral Reefs Forum, Noumea, 30 Oct – 4 Nov 2006.
- Eric Wolanski – Australia's tropical oceanography. Keynote talk at the DEW workshop, Characterising the marine ecosystems of the Northern Marine region, Darwin, 2–3 April 2007.

Expert Committees

AIMS staff contributed advice to a large number of State, Commonwealth, and international Standing Committees or Working Groups (full list at Appendix 5) including:

- Andrew Heyward – World Bank Working Group for Coral Reef Restoration.
- Chris Battershill – DEW Biotechnology Industry Panel.
- David Williams – Chair, Queensland Government Irukandji Taskforce.
- Ian Poiner – Vice-Chair, Scientific Steering Committee, Census of Marine Life.
- Janice Lough –UN-Sigma Xi Scientific Expert Group on Climate Change.
- Janice Lough – Expert Reviewer, International Panel on Climate Change.
- Janice Lough – AusAID Expert Reference Group for Environment Strategy for Australia's Overseas Aid.
- Libby Evans-Illidge – Biodiscovery Working Group, National Biotechnology Liaison Committee.
- Lyndon Llewellyn – Convenor, Australian Research Network on Algal Toxins
- Peter Doherty – Chair, Scientific Advisory Group, TRAWLMAC.

In addition, advice was shared through the following actions:

- Janice Lough – expert witness to the US Senate Commerce Committee on the potential impacts of climate change.
- Libby Evans-Illidge – expert briefing to a delegation from the Canadian government on marine genetic resources.
- Libby Evans-Illidge – consulted by DFAT about Australia's negotiating position on access and benefit sharing issues in the Convention on Biological Diversity.

- Libby Evans-Illidge - Co-chair, Access and Benefit Sharing - Stakeholder Workshop, Costa Rica, November 2006.
- Libby Evans-Illidge - UNICPOLOS 8 meeting on Marine Genetic Resources, UN Headquarters, New York, June 2007.

Other Outreach

In July 2006, AIMS launched "Waypoint" – a quarterly newsletter designed to keep stakeholders informed about our latest achievements in marine science and technology. Each edition of the newsletter features in-depth stories together with a number of brief pieces to attract the interest of key audiences. Delivered electronically and carrying our core messages of "who we are", "what we do", "why we do it" and "the science story", Waypoint has been very successful in strengthening the relationship between AIMS and our stakeholders.

AIMS, through the efforts of a committed group of volunteer guides, runs a programme of public and specialised tours for visitors to the Institute with 57 individual groups having been introduced to the inner workings of the organisation this year.

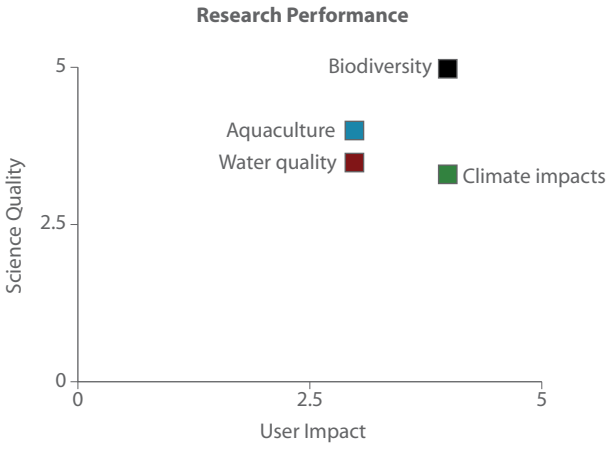
The Institute's external website (www.aims.gov.au) currently holds approximately 15,500 pages of information. During the reporting period, there were in excess of 224,000 visits to the site via the main point of entry and 1.5 million visits to the website through other links such as search engines and bookmarked pages. Across the web, more than 500 sites link directly to the Institute's home page, suggesting that the Institute's website is valued as an authoritative source of information. Thomson Scientific now provide direct access to the site through the "ISI Web of Knowledge" in recognition of the site being "an important resource for researchers, scientists, and scholars".

Staff from the Institute are regularly invited to participate in local, regional and national events aimed at raising the profile and benefits of science. Examples of such activity during the reporting period include:

- AIMS researchers attended the Women in Science and Engineering (WISE) Symposium at Parliament House, an event organised by the Minister for Education, Science & Training as a mentoring programme for early career scientists and high school students (Grades 7 to 10).
- AIMS worked with TAFE to develop training plan and work experience for sponge farm trainees from the Palm Island Sponge Aquaculture Research project.
- AIMS researchers presented key results to local audiences at public events like the Burdekin Climate Change Forum, the North Queensland Region Freshwater Workshop and the Thuringowa Better Earth Expo.

External Assessment and Review

During the reporting period, AIMS completed it's Research Performance Assessment with the final four expert reviews (see Appendix 6). Overall, the expert panels assessments considered that AIMS science was setting and sustaining new scientific directions internationally and that AIMS user impact was strong.



Independent reviewers scored four teams for their science quality and user impact on a five point scale with 5 representing international benchmarks.

The reviewers recommended some actions to improve AIMS research performance. Their recommendations were incorporated into our planning processes to develop the *Research Plan 2007-2011*, allowing us to focus on emerging strengths, science quality, user needs, and closer integration of science outputs across the Insitutute.

Co-investment in research

In recent years, AIMS has delivered more of its research through joint ventures, strategic alliances and significant collaborations. This strategy of favouring co-investment maximises the value of each dollar received from Australian Government appropriation. More importantly, it builds critical mass and broadens the skill base as required to address the complex questions of sustainable use and protection of marine resources. In 2006-2007, more than 70% of AIMS' scientific tasks (excluding postdoctoral researchers) received co-investment.

Joint Ventures

AIMS@JCU is a joint venture between AIMS and JCU designed to facilitate the sharing of infrastructure between the two organizations and to enhance the opportunities for training postgraduate students in tropical marine sciences. In 2006-2007, AIMS@JCU expanded its research portfolio to cover a third research programme (Stress in Tropical Marine Systems) in addition to the existing programmes in "Tropical Aquaculture" and "Coastal Processes and Modelling". At the end of the year, the joint venture was providing funding to 28 postgraduate students, including nine Honours students, and two post doctoral fellows. There were five thesis completions in 2006.

The joint venture also completed its immediate plans for developing infrastructure on the two campuses in Townsville with the commissioning of the Controlled Environment Centre in the seawater precinct at AIMS and the refurbishment of aquaculture pond facilities at JCU.

The Hon Julie Bishop, MP Minister for Education, Science and Training, and the Hon Peter Lindsay, MP, Federal Member for Herbert, are shown components of an experimental sensor network by AIMS researcher, Stuart Kininmonth and CEO, Dr Ian Poiner.

In a first for regional Australia, a fibre optic link (funded by AIMS@JCU) was used to stream high definition video between AIMS and the west coast of America (San Diego) during a recent CREON (Coral Reef Environmental Observatory Network) workshop and is expected to attract greater demand for this service.

Further details can be found at http://aims.jcu.edu.au/aims-jcu/home.html

ARC Centre of Excellence for Coral Reef Studies. The Centre of Excellence is a major research programme funded by the Australian Research Council for five years (2005-09) with headquarters at JCU. It is a partnership of JCU, AIMS, ANU, GBRMPA and UQ that fosters collaborative links between the partners and 24 other leading institutions in nine countries.

Three AIMS scientists have shared appointments with the centre and AIMS also meets half the costs of two post-doctoral fellows. In 2006-2007, the Centre of Excellence Fellows were Dr Stacy Jupiter (Programme 1: Evolutionary and Environmental Change Programme) co-supervised by Dr Janice Lough, and Dr Line Bay (Programme 4: Genetic, Molecular and Physiological Processes) co-supervised by Dr Madeleine van Oppen.

Further details can be found at http://www.coralcoe.org.au/index.html

The Arafura-Timor Research Facility (ATRF) is a small science complex in Darwin built with funds from the Major National Research Facilities Programme of the Commonwealth to support high quality marine science in northern Australia. It is a joint venture between AIMS and ANU with growing support from Charles Darwin University.

The facility is now fully tenanted and supports a range of research projects. In 2006-2007, AIMS made contributions to projects on:

- coastal migration of jewfish;
- satellite tracking of whale sharks;
- foreign fishing; and,
- shark fisheries in northern Australia.

The facility provides specialist infrastructure to the region, notably:

- genetic sequencing analyser; and
- stable isotope mass spectrometer.

In 2006-2007, AIMS co-funded two positions with CDU to operate these facilities.
Further details at http://www.atrf.org.au/ and http://www.cdu.edu.au/ehs/bna/index.html

Western Australian Marine Science Institution (WAMSI). WAMSI is a joint venture among 12 core parties including Australian Government agencies AIMS, CSIRO and the Bureau of Meteorology, Western Australian State Government research organisations, the Western Australian universities and the private sector.

The WAMSI research programme is based on six inter-linked nodes; short titles as follows:

1. Strategic research on Western Australian marine ecosystems;
2. Climate processes, predictability and impacts in a warming Indian Ocean;
3. Managing and conserving the marine state;
4. Sustainable marine ecosystems;
5. Marine biodiscovery, biotechnology & aquaculture; and
6. Ocean science for offshore and coastal engineering.

Of the six nodes, AIMS leads one node (Node 5) and is a major participant in two others (Nodes 2 & 3) with most of its current research for the latter concentrated on Ningaloo Reef.

In May 2007, a public stakeholder workshop, sponsored by WAMSI, AIMS, and Ausbiotech, was held at the Perth Convention Exhibition Centre to progress the planning for Node 5. Further details can be found at http://www.wamsi.org.au/home

Strategic Alliances

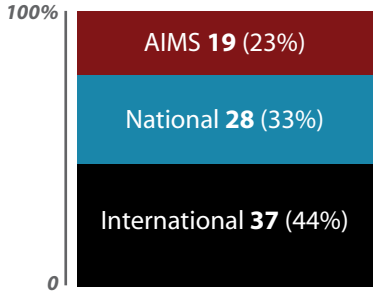
Strategic alliances have continued to contribute to AIMS research capacity by building critical mass and/or providing critical resources to enable the delivery of strategic research. Major alliances during the reporting period were:

- CReefs – a collaboration between AIMS, Scripps Institution of Oceanography and National Oceanic and Atmospheric Administration (NOAA) on a global census of coral reefs;
- RWQPP MMP – which is delivered by a consortium of agencies for the GBRMPA (AIMS, University of Queensland, QDPI&F, CSIRO, Queensland Department of Natural Resources, Mines and Water (QNRMW), Queensland Environmental Protection Agency (QEPA), Sea Research);
- MTSRF – a multi-agency research programme coordinated by the Reef and Rainforest Research Centre Limited (RRRC) under the Commonwealth Environment Research Facilities programme of the Department of Environment and Water Resources; and

- Continued coordination of research on coral bleaching as part of a consortium with NOAA, GBRMPA and the University of Queensland.

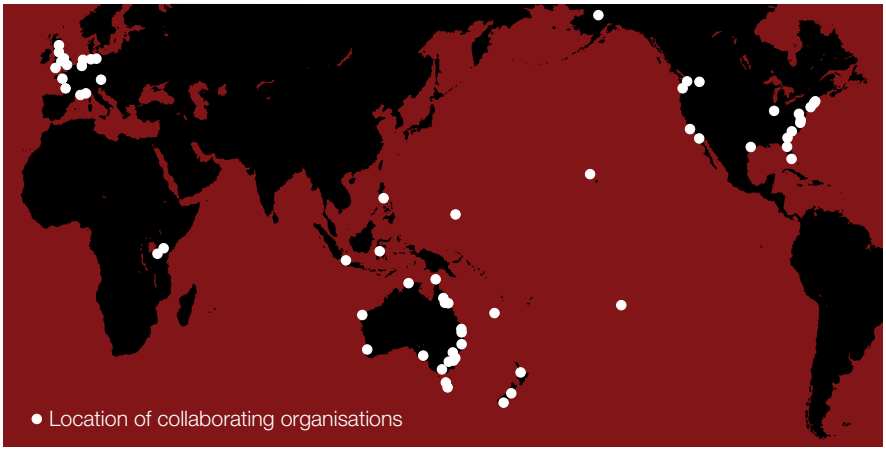
Number of collaborations

The Institute's collaborations with national and overseas partners add significant value to AIMS research outputs and outcomes. In 2006, 77% of AIMS journal publications were co-authored with researchers from other institutions with almost half (44%) of AIMS



Collaborative Publications 2006

publications in 2006 including one or more authors affiliated with a foreign organisation. Another third (33%) were co-authored with one or more researchers from another organisation in Australia.



In the reporting period, AIMS sustained collaborations with 87 organisations covering all states and territories of Australia as well as 15 other countries scattered across the globe.

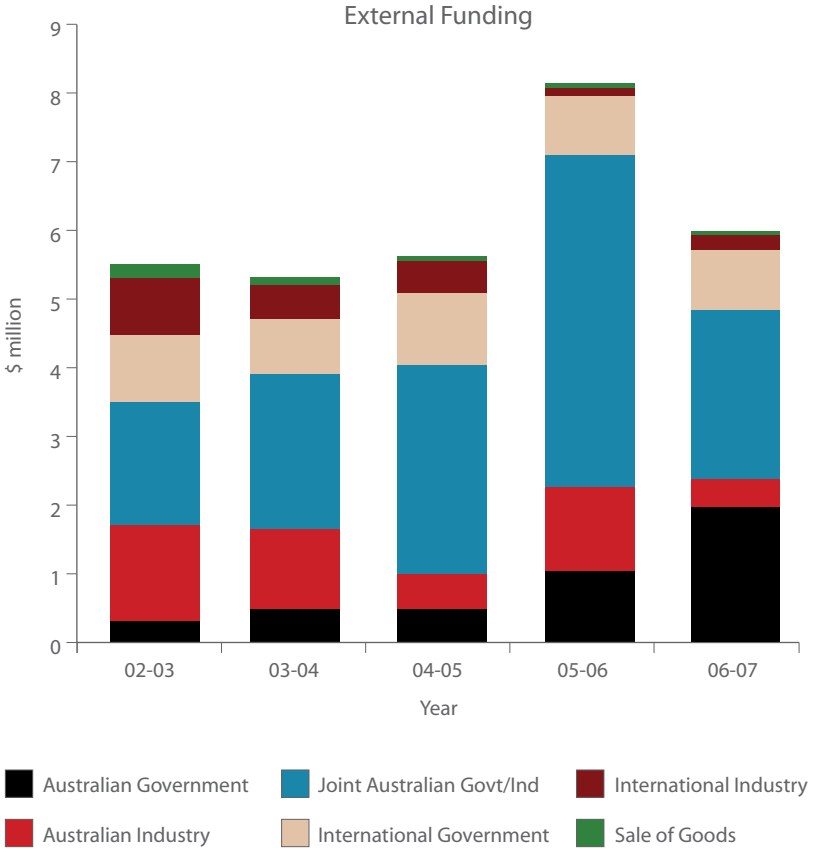
RESEARCH SERVICES, SPECIALISED CONSULTING

AIMS researchers occupy a niche between the investigator-driven fundamental research done by many university academics and client-driven tactical research. The institute does not generally undertake fee-for-service research in a deliberate strategy to avoid competition with commercial consulting firms and would only ever consider such an activity in the

absence of a private provider. AIMS does derive and rely upon a significant income stream from co-investments by others in major research activities of mutual interest. Without this revenue, the Institute's research portfolio would be significantly smaller.

External Revenue

In 2006-2007, revenue from external sources was $6.04 million. This was similar to historical performance but considerably less than the previous year, which superficially indicates that 2005-2006 was an aberration rather than a step jump in earnings.



Some of the abnormal income experienced in 2005-2006 can be linked with the concurrent completion of major tasks in the CRC Reef partnership and the supplementary 'Catchment to Reef Programme', along with new funding from the GBR Water Quality Protection Plan, and transitional funding from the new Marine and Tropical Sciences Research Facility created by the Ausralian Government to replace the lapsing CRC's in public good environmental science.

Equally, about a million dollars worth of revenue flows anticipated in 2006-2007 have been deferred due to events beyond the Institute's control but are expected to return next year. On that basis, we forecast external revenue of more than $7 million in 2007-08.

As shown above, Australian Government agencies and Australian Government/ Industry partnerships provided 74% of AIMS external revenue. Revenue obtained directly from Australian Industry dropped to 6.7% due to the deferment of agreed work but is expected to recover next year.

Adoption by Users of Practices, Instruments and Processes
AIMS, as part of the industry-led prawn domestication consortium, successfully generated a new nucleus of 23 families of fourth generation east coast prawn families. These prawns were transferred to the consortium's industry partners for grow-out to brood stock size. Achieving this transfer was a foundation goal of the FRDC-funded consortium that now looks forward to industry testing of these broodstock during the 2007-2008 production season.

The AIMS Long-term Monitoring Programme continued to deliver data on the health of GBR coral reefs that is one of the key performance measures for GBRMPA.

Contribution to Australia's Research Future Through Teaching and Training
AIMS researchers continued their strong affiliation with universities and support for research training of Australia's future scientists. In 2006-2007, AIMS staff held 21 adjunct appointments at universities, including James Cook University, the University of Queensland, University of Western Australia, Charles Darwin University, Central Queensland University, and Xiamen University (China).

During 2006–2007, AIMS scientists supervised 64 postgraduate students, 14 Honours students and 13 Occupational Trainees from foreign universities.

As a result of previous supervision, 17 theses (including four Honours theses) were awarded in 2006.

	2003-2004	2004-2005	2005-2006	2006-2007
AIMS staff enrolled in postgraduate studies	9	8	6	8
Students working at AIMS (Townsville) supervised by AIMS staff	21	24	34	27
Students working externally supervised by AIMS staff	35	37	25	37
Occupational trainees (Australia and overseas)	12	17	17	13

Contracts Successfully Completed
During the reporting period, AIMS successfully completed 38 contracts and commenced 30 new ones. The Institute provided 92 client reports to external parties, with the vast majority being meeting agreed milestones. The level of satisfaction with our service delivery can be judged by the high percentage of repeat business from the same clients.

Policy Input
AIMS continues to provide strategic, expert input to the development of policy both directly through submission to key reviews and indirectly through provision of advice. The latter is facilitated through maintenance of effective networks with State and Federal regulatory bodies and membership of key committees and working groups. As a Portfolio Agency, we are often asked for advice on matters forwarded by the Department of Education, Science and Training with an example being comment on the DEST 'International Science Strategy'.

Other examples of advice to Government include public submissions during 2006-2007 to:

- the Productivity Commission review of *Public Support for Science and Innovation;*
- the *Great Barrier Reef Marine Park Authority Amendment Bill 2007;*
- the *Queensland Government Marine Aquaculture Policy Green Paper;* and
- the *Draft Biodiversity Conservation Strategy for Western Australia.*

In addition, individuals provided expert advice on important matters requiring professional and technical expertise (see *Expert Committees,* p 50) with strong examples in the areas of climate change impacts, access and benefit sharing arrangements for marine genetic resources, biosecurity, and fisheries management arrangements.

Impact beyond national boundaries can be claimed for the first two areas through the contributions of our researchers to international communities like the IPCC and inter-governmental arrangements like UNICPOLOS.

Customer Feedback
In 2006-2007, AIMS consulted more than a dozen of our key stakeholders representing academia, government and industry requesting input to and comment on our updated *Strategic Directions* and *Research Plan 2007-2011*.

The Institute 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.

LICENSING, PATENTING AND SPIN-OFFS

During the reporting period, AIMS continued to manage the outputs generated from its research programme through the use of appropriate contractual arrangements with external stakeholders and ongoing management of AIMS' Intellectual Assets. [1]

Intellectual Property Portfolio
A key aspect of AIMS intellectual asset management is the AIMS IP portfolio. This portfolio is managed in accordance with the AIMS Intellectual Asset Policy, which endeavours to optimise the social, environmental and economic benefits arising from these assets.

[1] **'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.

As at 30 June 2007, AIMS' intellectual property portfolio contained 60 patents from 7 families spanning a diverse range of technologies and 17 trademarks covering 4 marks, in various jurisdictions.

Commercial Disclosures

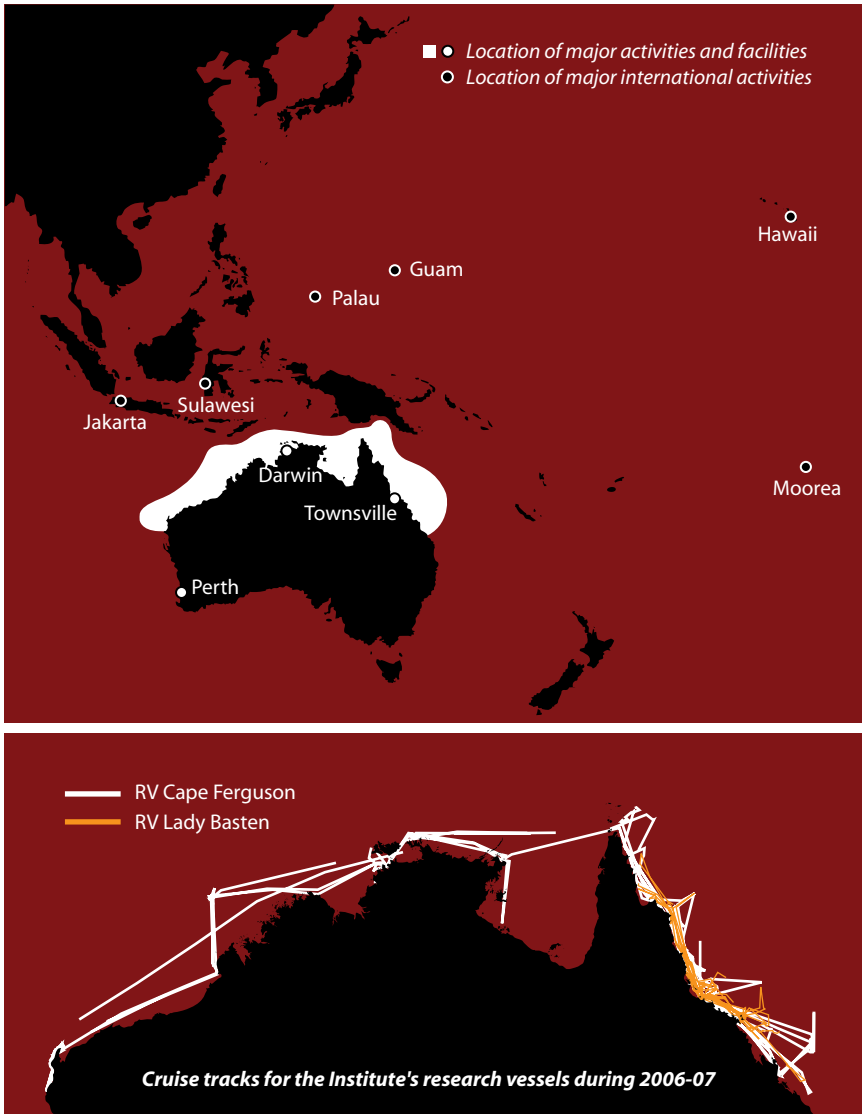
During the reporting period, AIMS entered into a number of commercial disclosure arrangements to protect the exchange of confidential information between AIMS and potential research collaborators and partners. These arrangements include Confidentiality Disclosure Agreements and Material Transfer Agreements relevant to the development of commercial arrangements. This reporting period has seen a decrease in the number of commercial disclosures executed (19 in this period compared with 58 in the previous year). This decrease has arisen primarily because commercial activities during 2006-2007 have focused on expanding existing relationships.

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 80 new commercial arrangements, which is down slightly from the 90 commercial arrangements transacted in 2005-2006.

Start-up Companies

Three start-up companies continued to operate in 2006-2007 and with appropriate support from AIMS have pursued product development in their respective technological fields. These companies are Cleveland Biosensors Pty Ltd (www.clevelandbiosensors.com), a spin-off resulting from AIMS and James Cook University collaborative research in detection of marine toxins in seafood; WetPC Pty Ltd, (www.wetpc.com.au), 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 discovered serendipitously while undertaking basic research into the photophysiology of reef corals.



Cruise tracks for the Institute's research vessels during 2006-07

Role, Legislation and Minister

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*. 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). During the period 2006–2007, the Minister responsible for AIMS was the Hon Julie Bishop MP, Minister for Education, Science and Training.

Photo: AIMS Long-term Monitoring Team

Staffing and Structure

The total number of staff employed by the Institute as at 30 June 2007 was 164 (by head count). When taking into account hours worked over the reporting period, the full-time equivalent value is 162.0. All members of staff are employed under the *Australian Institute of Marine Science Act 1972 (amended 2002)*. In addition to those paid from Australian Government appropriation, the Institute periodically employs staff to work on projects funded from external sources.

An extensive review was undertaken in 2006 which took into account new systems implementation; streamlining of operations; assessment of current capability and re-training and re-deployment options. This was done to ensure that AIMS would be well positioned financially and with the right people and capability mix. The decision was then made to implement a redundancy programme in November 2006. Seven positions were identified as surplus to AIMS future needs from both science & support areas and redundancies were offered under the terms of AIMS Collective Agreement. Seven people subsequently left AIMS employment with the programme being finalised in May 2007.

The following tables provide a breakdown of staff numbers and EEO status by headcount as at 30 June 2007:

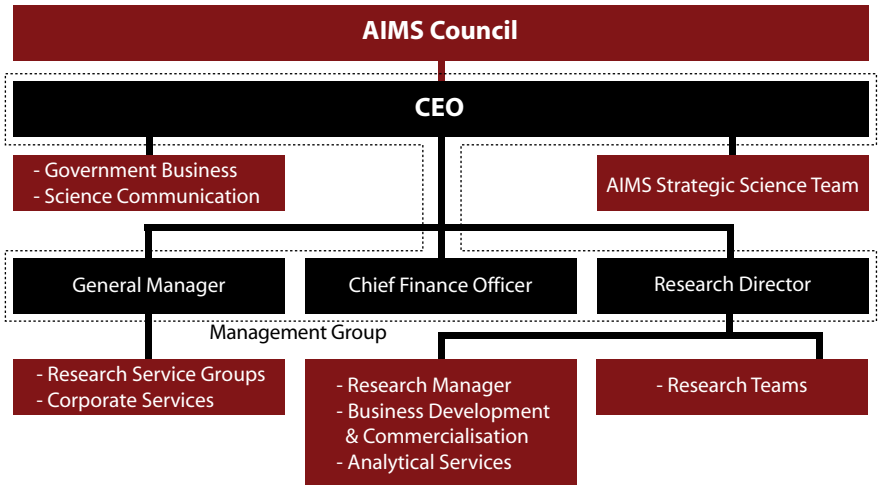
	Female	Male	Total
Research Scientists	7	25	32
Research Projects	25	38	63
Other (Research and Corporate Services)	31	38	69
Total Staff	63	101	164

Aboriginal and Torres Strait Islander	1.23%
Non English speaking Background	6.75%
Staff with Disability	2.45%
Women	38%

The work of the research staff is supported by a variety of professional research support staff skilled in data management, commercial services, intellectual property 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 is made up of the Chief Executive Officer, General Manager, Research Director and Chief Finance Officer.

ORGANISATIONAL STRUCTURE



Corporate Governance

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

RESPONSIBLE MINISTER

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

THE COUNCIL

Under the AIMS Act, the Council (or Board) of the Institute comprises a part-time chair, the Institute's CEO and five part-time members.

Council members are appointed by the Governor General, at least three members must possess scientific qualifications and one member is nominated by James Cook University. Appointments can be up to five years and reappointment is permissible. 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. The CEO is an *ex officio* member of Council.

The CEO is appointed on the recommendation of the Council for a period not exceeding seven years and is eligible for re-appointment.

Professor Peter Høj resigned during the year and Professor Sandra Harding, Vice Chancellor and President of James Cook University, was appointed as the James Cook University nominated representative on the Council on 10 May 2007.

ROLE OF THE COUNCIL

AIMS Council sets the Institute's key objectives and research strategies. This year, the Council, after close consultation with stakeholders endorsed new strategic directions for the Institute and approved a four-year *Research Plan 2007-2011*. The plan takes into consideration the needs and priorities of stakeholders and the National Research Priorities. Progress against the plan is reported to the Council, on a continuous basis, by the Institute. The Minister is also provided with 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 2006–2007, all CAC Act requirements were met.

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 40 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 St Andrews Hospital, CSIRO Minerals and Energy Sector Advisory Committee and Toro Energy Ltd.

Dr Gould is a member of the Royal Flying Doctor Service (Central Operations), and the South Australia Resources Industry Development Board.

Mr John Grace BSc (Applied Chemistry), FTSE, FAICD
Term as Council member: 16/12/2004 – 15/12/2009

Mr Grace has worked for 37 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 the honorary treasurer of the Academy of Technological Sciences and Engineering and in recent times he has been the acting CEO.

Mr Grace is a past member of the Australian Research Council where he continues an association as Chair of the Selection Panel for the College of Experts, and Chair of the Review of the Federation Fellowship scheme. 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.

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); chair 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.

Professor Peter Høj MSc, PhD (Copenhagen), FTSE
Term as Council member: 01/01/2005 – 01/05/2007
Professor Høj resigned from Council in May after taking up his appointment as Vice Chancellor and President of the University of South Australia. He was 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.

Mr Nicholas Mathiou B Com (Hons), LLB, MMktg
Term as Council member: 01/09/2005 – 31/08/2010
Mr Mathiou has 19 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 Director of Investment Capital Partners (ICP), an Australian life sciences venture capital 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.

Professor Sandra Harding BSc (Hons), M.Pub.Admin , PhD , FAICD, FAIM
Term as Council member: 10/05/2007 – 09/05/2010
Professor Sandra Harding joined James Cook University as Vice-Chancellor and President in January 2007. Professor Harding has extensive academic leadership experience. Between 1997 and 2006, she held a number of senior executive roles at Queensland University of Technology, including Deputy Vice-Chancellor (International and Development) and (executive) Dean of the Faculty of Business.

Professor Harding has undertaken a wide variety of external roles. She was the inaugural President of the Australian Business Deans Council and Vice President of the Australian Universities Community Engagement Alliance. She has also served on a number of review panels and accreditation committees within the higher education sector. For the past five years, she has been Chair of the Australian Statistics Advisory Council, providing advice to the Federal Government and the Australian Statistician on Australia's national statistical priorities. For a similar period, Professor Harding has been a member of the HIH Assessment Review Panel, another federal government appointment.

Professor Harding has been a member of the Queensland Education and Training Export Board, the Queensland Small Business Advisory Council and the judging panels of Queensland Export Awards and the Premier's Awards for Public Sector Excellence. She has chaired the Energex Community Consultation Forum since 2003. Professor Harding has worked on boards linked to the Brisbane City Council. She was a Director on the Brisbane Transport Board and Chair of Brisbane Marketing Pty. Ltd. from 2003–2006. She is also non-executive Director of the Global Foundation for Management Education Ltd (Montreal).

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 AIMS. Dr Poiner has significant experience in strategic development and planning of science, both as a practising 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 programmes 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 those 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 a member of the International Scientific Steering Committee of the Census of Marine Life, a 10-year international research programme 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

	25–26 Sept 2006 Perth	27–28 Nov 2006 Townsville	29–30 Mar 2007 Townsville	15–16 June 2007 Townsville
Dr Ian Gould	✓	✓	✓	✓
Mr John Grace	✓	✓	✓	✓
Prof Peter Høj	✓	✓	✓	resigned
Ms Elizabeth Montano	✓	✓	✓	✓
Mr Nicholas Mathiou	✓	✓	✓	✓
Prof Sandra Harding	not appointed	not appointed	not appointed	✓
Dr Ian Poiner	✓	✓	✓	✓

AUDIT COMMITTEE

The Audit Committee is a formal sub-committee of the Council and it meets quarterly or as required. The Audit Committee members during the reporting period were Mr Roy Peterson (Chair from July to September 2006), Mr Nicholas Mathiou (became Chair in September 2006), and Ms Elizabeth Montano. The Chief Executive Officer, the Chief Finance Officer, representatives of the Australian National Audit Office and Internal Auditor and External Auditor attend all meetings, or relevant parts of all meetings, by invitation.

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

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

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

Meetings – Audit Committee

Member	Held	Attended
Mr Roy Peterson (External member and Chair, July – September 2006)	4	4
Mr Nicholas Mathiou (Council member and Chair from September 2006)	4	4
Ms Elizabeth Montano (Council member)	4	4
Invitees		
Dr Ian Poiner (Chief Executive Officer)	4	4
Mr John Zabala (Internal Auditor)	4	4
Mr Victor Bayer (Chief Finance Officer)	4	4
Ms P Dash (Australian National Audit Office)	4	1
Ms C Sturgess (HLB Mann Judd)	4	1

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 development and implementation 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.

DIRECTOR'S INTERESTS — DISCLOSURE OF INTEREST

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 Pickards BDS. 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 (ANAO), is the external auditor for AIMS.

The Audit Committee review the ANAO audit plan and reports and meets with ANAO representatives prior to 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 officer's liability for legal costs. AIMS paid premiums for the Directors and Officers' insurances, required under the CAC Act.

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 2006–2007. This committee provides a forum for discussion and consultation between management and staff representatives. The AIMS Collective Agreement 2006–2009 became effective from 1 August 2006.

CONSULTANCY ADVICE

The Institute seeks independent advice from consultants when required. During 2006-2007, a single contract for consultancy services was awarded - Bio-Link Associates Ltd was engaged to undertake an assessment of AIMS' portfolio of novel compounds derived from marine organisms.

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 $50,000. 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 subcontractors connected to them or to an immediate family member.

Photo: AIMS Long-term Monitoring Team

Public Accountability

MINISTERIAL DIRECTIONS AND APPROVALS

The Minister for Education, Science and Training did not issue any directions under the CAC Act AIMS received approval from the Minister to enter into contracts associated with the design and construction of a new research vessel and a facilities maintenance contract.

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. The external review process of AIMS research quality and impact was continued during the year and is reported earlier in the Report of Operations (External Assessment and Review, p 51)

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 undertake marine research and related activities in a safe and responsible manner for staff and visitors. The Institute holds that all injuries are preventable and that all risks and hazards should be identified and assessed in line with the complexities of the research work, activities and supporting functions required.

During 2006–2007, the OHS culture and function within the Institute were strengthened by:

1. New, updated or draft OHS related policies on:
   i) Working alone;
   ii) Teleworking;
   iii) Workplace bullying, discrimination and harassment; and
   iv) Influenza pandemic.
2. AIMS staff continue to receive training in safety awareness, hazard and risk management, first aid, dive safety, and chemical information systems (Chemwatch). First aid and health and safety representatives have been designated to assist staff and the Institute in promoting and maintaining a safe and healthy workplace.
3. The Institute is recognised as an isolated establishment and as such has placed a greater emphasis on tracking/recording on-site attendance in order to be able to account for staff and visitors in the event of an emergency such as (but not limited to) fire or storm surge.
4. Other actions including
   i) Internal audit and review of various work areas and improvements actioned (where identified); and
   ii) Improved focus on safety inductions with particular emphasis on laboratory safety requirements.

INCIDENTS

The Institute was not required to report any incidents to Comcare for 2006–2007 under the requirements of Section 68 of the *Occupational Health and Safety (Commonwealth Employment) Act 1991*. All reported incidents that include staff, visitors and contractors have been thoroughly investigated to ensure appropriate corrective and preventative actions have been put in place.

The overall trend in reported incidents showed a decrease over the previous year by 10.53%, a further improvement (there was a 20% reduction in 2005-2006). The number of days lost as a result of injuries sustained in the workplace totalled 13.

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 continues to ensure staff and visitors are adequately trained for the use of ionizing and non-ionizing.

GENE TECHNOLOGY

All proposed research projects were assessed by the Institute's Biosafety Committee and one project was considered to be in the Notifiable Low Risk Dealing (NLRD) category and AIMS notified to the office of the Gene Technology Regulator, as required.

ENVIRONMENT

Environmental considerations are a key element of the Institute's decision-making processes in relation to both scientific activities and site development. The Institute has in place a comprehensive Environment Management Plan (EMP) for the Townsville site – AIMS rents premises at its other laboratories. The effectiveness of the associated Environment Management System is regularly reviewed. The Environment Committee, made up of both research and support staff, oversees 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.

ENERGY USAGE

The Institute conducts 5-yearly energy audits with the most recent data indicating an annual consumption of 47,000 gigajoules of energy. Energy data is reported to the Australian Greenhouse Office in accordance with the government's *Energy Efficiency in Government Operations* policy. AIMS is participating in a government advisory panel tasked with achieving energy reduction across all Australian laboratories.

Energy usage reduction initiatives during the year focused improvements to the Institute's buildings at its headquarters in Townsville. Actions included the replacement of control system hardware for air conditioning and dehumidification systems and the construction of an energy-efficient Controlled Environment Seawater Facility for the Institute's heated/chilled seawater supply systems.

RECYCLING

AIMS recycles 100% of paper, cardboard, batteries, lubricants and metals. The Institute's headquarters are isolated and at this site AIMS recycles 100% of treated sewage and food scraps.

WATER USAGE

Significant effort has been put into recording, managing and reducing water usage in recent years. Data is gathered on a calendar year basis with results for 2006 confirming a reduction of 26.6% over the past five years. An on-site wastewater recycling facility allows 100% of sewage generated at the Townsville headquarters to be treated and reused through the lawn and garden watering systems. Wastewater and rainwater storage capacity has been increased and water-wise initiatives have been adopted throughout the site as a result of an on-going initiative commenced in 2002.

EEO AND WORKPLACE DIVERSITY

The Institute is aware of diversity issues. AIMS Diversity Policy 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 AIMS' Code of Conduct and Terms and Conditions of Service (which are consistent with Division 4 of the CAC Act). 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 across the Institute. Their role is to be available to discuss, in confidence, matters of concern in relation to harassment and associated issues raised by staff member. Staff have undertaken harassment awareness training and new staff are provided with this information as part of the induction process.

In 2006–2007 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.

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 web site, 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, which includes provision for the disabled in the construction of new facilities such as the new AIMS@JCU Controlled Environment Facility. A wheelchair is available for use by disabled visitors to AIMS headquarters in Townsville.

ETHICAL CONDUCT

The Institute has a Code of Conduct to which the Council, management, staff, and medium to long term visitors 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, staff and visitors 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 PROGRAM

The OSA Group are contracted by the Institute to provide an independent Employee Assistance Programme (EAP). Approximately 9% of staff accessed the counselling service during the reporting period, which is a slight decrease on the previous year (12%). A further dissection of usage reveals that 9 staff and 6 family members accessed the service. Longer term visitors to the Institute, particularly if they are from interstate or overseas, are able to access this service at no cost, should they need any assistance.

FREEDOM OF INFORMATION

No requests were received in 2006–2007 under the provisions of the *Freedom of Information Act 1982* (FOI Act). The statement required under Section 8 of the FOI Act, setting out documents available for inspection, is at Appendix 7, pages 155-156.

Freedom of Information Statement

The 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. 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

Photo: AIMS

AUDITOR GENERAL'S REPORT

- Independent Audit Report

Australian National
Audit Office

INDEPENDENT AUDITOR'S REPORT

To the Minister for Education, Science and Training

Scope

I have audited the accompanying financial statements of the Australian Institute of Marine Science for the year ended 30 June 2007, which comprise: a statement by the Directors and Chief Executive Officer, income statement; balance sheet; statement of changes in equity; cash flow statement; schedules of commitments and contingencies; a summary of significant accounting policies; and other explanatory notes.

The Responsibility of the Directors for the Financial Statements

The Directors of the Australian Institute of Marine Science are responsible for the preparation and fair presentation of the financial statements in accordance with the Finance Minister's Orders made under the *Commonwealth Authorities and Companies Act 1997* and the Australian Accounting Standards (including the Australian Accounting Interpretations). This responsibility includes establishing and maintaining internal control relevant to the preparation and fair presentation of the financial statements that are free from material misstatement, whether due to fraud or error, selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

My responsibility is to express an opinion on the financial statements based on my audit. My audit has been conducted in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These Auditing Standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Australian Institute of Marine Science's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing

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an opinion on the effectiveness of the Australian Institute of Marine Science's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Directors, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for my audit opinion.

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.

Auditor's 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 the Australian Accounting Standards (including the Australian Accounting Interpretations); and

(b) give a true and fair view of the matters required by the Finance Minister's Orders including the Australian Institute of Marine Science's financial position as at 30 June 2007 and of its financial performance and its cash flows for the year then ended.

Australian National Audit Office

Puspa Dash

Puspa Dash
Acting Executive Director

Delegate of the Auditor-General

Canberra
27August 2007

Photo: AIMS Long-term Monitoring Team

Financial Statements

- Statement by Directors and Chief Executive
- Income Statement for the year ended 30 June 2007
- Balance Sheet as at 30 June 2007
- Statement of Changes in Equity as at 30 June 2007
- Statement of Cash Flows for the year ended 30 June 2007
- Schedule of Commitments as at 30 June 2007
- Schedule of Contingencies as at 30 June 2007
- Notes to and Forming part of the Financial Statements
- Supplementary Financial Information (unaudited) for the year ended 30 June 2007

STATEMENT BY THE DIRECTORS AND CHIEF EXECUTIVE

In our opinion, the attached Financial Statements for the year ended 30 June 2007 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Ministers 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 Australian Institute of Marine Science (AIMS) 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
24th August 2007

Dr Ian Poiner
Chief Executive Officer
24th August 2007

Mr Victor Bayer
Chief Finance Officer
24th August 2007

INCOME STATEMENT
for the year ended 30 June 2007

	Notes	2007 $'000	2006 $'000
INCOME			
Revenue			
Revenue from Government	3A	**24,470**	23,125
Sale of goods and rendering of services	3B	**6,040**	8,228
Interest	3C	**1,267**	1,060
Revenues from joint ventures	3D	**365**	996
Other revenue	3E	**2,841**	167
Total revenue		**34,983**	33,576
EXPENSES			
Employee benefits	4A	**15,992**	14,931
Suppliers	4B	**11,292**	11,736
Depreciation and amortisation	4C	**5,354**	2,949
Expenditures on joint ventures	4D	**328**	294
Interest	4E	**93**	104
Write-down and impairment of assets	4F	**-**	262
Losses from asset sales	4G	**63**	128
Total Expenses		**33,122**	30,404
Surplus attributable to the Australian Government		**1,861**	3,172

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

BALANCE SHEET
as at 30 June 2007

	Notes	2007 $'000	2006 $'000
ASSETS			
Financial Assets			
Cash and cash equivalents	5A	**138**	229
Trade and other receivables	5B	**3,621**	3,537
Investments	5C	**14,682**	18,495
Total financial assets		**18,441**	22,261
Non-Financial Assets			
Land and buildings	6A	**48,613**	49,105
Infrastructure, plant and equipment	6B	**21,875**	16,694
Intangibles	6C	**174**	301
Inventories	6D	**230**	239
Other non-financial assets	6E	**271**	288
Total non-financial assets		**71,163**	66,627
Total Assets		**89,604**	88,888
LIABILITIES			
Payables			
Suppliers	7A	**4,427**	4,197
Other payables	7B	**1,977**	3,119
Total payables		**6,404**	7,316
Provisions			
Employee provisions	8A	**6,606**	6,839
Total provisions		**6,606**	6,839
Total Liabilities		**13,010**	14,155
Net Assets		**76,594**	74,733
EQUITY			
Contributed equity		**31,607**	31,607
Reserves		**34,375**	34,375
Retained surplus		**10,612**	8,751
Total Equity		**76,594**	74,733
Current Assets		**18,940**	21,768
Non-Current Assets		**70,664**	67,120
Current Liabilities		**12,071**	12,533
Non-Current Liabilities		**939**	1,622

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

STATEMENT of CHANGES in EQUITY
as at 30th June 2007

	Retained Earnings		Asset Revaluation Reserves		Contributed Equity/Capital		Total Equity	
	2007	2006	**2007**	2006	**2007**	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000	**$'000**	$'000	**$'000**	$'000
Opening balance								
Balance carried forward from previous period	**8,751**	5,579	**34,375**	17,677	**31,607**	31,607	**74,733**	54,863
Income and expense								
Income and expenses recognised Directly in Equity	-	-	-	16,698	-	-	-	16,698
Sub-total income and expenses recognised Directly in Equity	-	-	-	16,698	-	-	-	16,698
Surplus for the period	**1,861**	3,172	-	-	-	-	**1,861**	3,172
Total income and expenses	**1,861**	3,172	-	16,698	-	-	**1,861**	19,870
Closing balance at 30 June	**10,612**	8,751	**34,375**	34,375	**31,607**	31,607	**76,594**	74,733

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

CASH FLOW STATEMENT

for the year ended 30 June 2007

	Notes	2007 $'000	2006 $'000
OPERATING ACTIVITIES			
Cash received			
Goods and services		**6,002**	6,912
Appropriations		**24,470**	23,125
Interest		**1,111**	985
Net GST received		**1,236**	440
Receipt from joint ventures		**-**	996
Other cash received		**3,127**	167
Total cash received		**35,946**	32,625
Cash used			
Employees		**15,943**	14,287
Suppliers		**13,340**	9,813
Interest		**-**	104
Payment to joint ventures		**588**	1,467
Total cash used		**29,871**	25,671
Net cash from or (used by) Operating Activities	9	**6,075**	6,954
INVESTING ACTIVITIES			
Cash received			
Proceeds from sales of property, plant and equipment		**415**	559
Total cash received		**415**	559
Cash used			
Purchase of property, plant and equipment		**10,394**	5,224
Total cash used		**10,394**	5,224
Net cash from or (used by) investing activities		**(9,979)**	(4,665)
Net increase or (decrease) in cash held		**(3,904)**	2,289
Cash at the beginning of the reporting period		**18,724**	16,435
Cash at the end of the reporting period	9	**14,820**	18,724

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

SCHEDULE OF COMMITMENTS
as at 30 June 2007

	2007	2006
BY TYPE	**$'000**	$'000
Commitments Receivable		
Total Commitments Receivable	**-**	-
Commitments payable		
Capital commitments		
Buildings and leasehold improvements [1]	**1,347**	309
Infrastructure, plant and equipment [2]	**8,089**	463
Total capital commitments	**9,436**	772
Other commitments		
Operating leases [3]	**9**	109
Other commitments [4]	**33,212**	6,966
Total other commitments	**33,221**	7,075
Net commitments by type	**42,657**	7,847
BY MATURITY		
Commitments receivable		
Total commitments receivable	**-**	-
Commitments payable		
Capital commitments		
One year or less	**9,436**	772
From one to five years	**-**	-
Over five years	**-**	-
Total capital commitments	**9,436**	772
Operating lease commitments		
One year or less	**7**	75
From one to five years	**2**	33
Over five years	**-**	-
Total operating lease commitments	**9**	108
Other Commitments		
One year or less	**10,686**	3,349
From one to five years	**21,770**	3,618
Over five years	**756**	-
Total other commitments	**33,212**	6,967
Net Commitments by Maturity	**42,657**	7,847

NB: Commitments are GST inclusive where relevant.

1. Primarily consists of outstanding contractual payments for building of the Centre of Marine Microbiology and Genetics Research (CMMG).
2. Plant and equipment commitments are primarily outstanding contractual payments for purchases of a new research vessel and CMMG equipment and Great Barrier Reef Ocean Observing System equipment.
3. Operating leases included are effectively non-cancellable and comprise:
   Nature and general description of lease arrangements
   Leases for franking machine and photocopier.
4. Other commitments are primarily made up of AIMS's outstanding contractual contributions to contracts with external collaborators.

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

SCHEDULE OF CONTINGENCIES
as at 30 June 2007

Contingent Assets	Guarantees		TOTAL	
	2007	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000
Balance from previous period	**-**	-	**-**	-
New	**6,135**	-	**6,135**	-
Expired	**-**	-	**-**	-
Total Contingent Assets	**6,135**	-	**6,135**	-

Details of each class of contingent liabilities and assets, including those not included above because they cannot be quantified, are disclosed in Note 10: Contingent Liabilities and Contingent Assets.

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

Notes to and Forming part of the Financial Statements

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 (AIMS) is the protection and sustainable development of Australia's marine resources.

AIMS is structured to meet one outcome:

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

1.2 Basis of Preparation of the Financial Report

The Financial Statements and notes 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 AIMS in its present form and with its present programs is dependent on Government policy and on continuing appropriations by Parliament for AIMS's administration and programs.

The Financial Statements and notes have been prepared in accordance with:

· Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2006; and

· Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial report has been prepared on an accrual basis and is in accordance with historical cost convention, except for certain assets 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 otherwise specified.

Unless an alternative treatment is specifically required by an Accounting Standard or the FMOs, assets and liabilities are recognised in the Balance Sheet when and only when it is probable that future economic benefits will flow to AIMS 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 unrealised are reported in the Schedule of Commitments and the Schedule of Contingencies (other than unquantifiable contingencies, which are reported at Note 10).

Unless alternative treatment is specifically required by an Accounting Standard, revenues and expenses are recognised in the Income Statement when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured**.**

1.3 Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, AIMS has made the following judgements that have the most significant impact on the amounts recorded in the financial statements:

The fair value of land and buildings has been taken to be the market value of similar properties as determined by an independent valuer. In some instances, AIMS's buildings are purpose built and may in fact realise more or less in the market.

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

1.4 Statement of Compliance

Australian Accounting Standards require a statement of compliance with International Financial Reporting Standards (IFRSs) to be made where the financial report complies with these standards. Some Australian equivalents to IFRSs and other Australian Accounting Standards contain requirements specific to not-for-profit entities that are inconsistent with IFRS requirements. AIMS is a not-for-profit entity and has applied these requirements, so while this financial report complies with Australian Accounting Standards including Australian Equivalents to International Financial Reporting Standards (AEIFRSs) it cannot make this statement.

Adoption of New Australian Accounting Standard Requirements

No Accounting Standard has been adopted earlier than the effective date in the current period.

Other Effective Requirement Changes

The following amendments, revised standards or interpretations have become effective but have had no financial impact or do not apply to the operations of AIMS.

Amendments

• 2005-1 Amendments to Australian Accounting Standards [AASBs 1, 101, 124]
• 2005-4 Amendments to Australian Accounting Standards [AASB 139, AASB 132, AASB 1, AASB 1023 and AASB 1038]
• 2005-5 Amendments to Australian Accounting Standards [AASB 1 & AASB139]
• 2005-6 Amendments to Australian Accounting Standards [AASB 3]
• 2005-9 Amendments to Australian Accounting Standards [AASB 4, AASB 1023, AASB 139 & AASB 132]
• 2006-1 Amendments to Australian Accounting Standards [AASB 121]
• 2006-3 Amendments to Australian Accounting Standards [AASB 1045]

Interpretations

• UIG 4 Determining whether an Arrangement contains a Lease
• UIG 5 Rights to Interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds
• UIG 7 Applying the Restatement Approach under AASB 129 Financial Reporting in Hyperinflationary Economies
• UIG 8 Scope of AASB 2
• UIG 9 Reassessment of Embedded Derivatives

UIG 4 and UIG 9 might have impacts in future periods, subject to existing contracts being renegotiated.

Future Australian Accounting Standard Requirements

The following new standards, amendments to standards or interpretations have been issued by the AASB but are effective for future reporting periods. It is estimated that the impact of adopting these pronouncements when effective will have no material financial impact on future reporting periods.

Financial Instrument Disclosure

AASB 7 *Financial Instruments: Disclosures* is effective for reporting periods beginning on or after 1 January 2007 (the 2007-08 financial year) and amends the disclosure requirements for financial instruments. In general AASB 7 requires greater disclosure than that presently. Associated with the introduction of AASB 7 a number of Accounting Standards were amended to reference the new standard or remove the present disclosure requirements through 2005-10 Amendments to Australian Accounting Standards [AASB 132, AASB 101, AASB 114, AASB 117, AASB 133, AASB 139, AASB 1, AASB 4, AASB 1023 & AASB 1038]. These changes have no financial impact but will affect the disclosure presented in future financial reports.

Other

The following standards and interpretations have been issued but are not applicable to the operations of AIMS.

• AASB 1049 Financial Reporting of General Government Sectors by Governments; and
• UIG 10 Interim Financial Reporting and Impairment.

1.5 Revenue

Revenue 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 Types of 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 can be reliably measured; and

· It is probable that the economic benefits associated with the transaction will flow to AIMS.

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 will flow to AIMS.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, 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 *Financial Instruments: Recognition and Measurement.*

1.6 Gains

Sale of Assets

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

1.7 Transactions with the Government as Owner

Equity injections

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) are recognised directly in Contributed Equity in that year. AIMS had no such injections during the year.

Restructuring of Administrative Arrangements

Net assets received from or relinquished to another Australian Government authority or agency under a restructuring of administrative arrangements are adjusted at their book value directly against Contributed Equity. AIMS 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 2006-07, by agreement with the Department of Finance and Administration, AIMS did not relinquish control of any surplus output appropriation funding.

1.8 Employee Benefits

Liabilities for 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' (as defined in AASB 119) and termination benefits due within twelve months of balance date are measured at their nominal amounts. 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 at 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 AIMS is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration, including AIMS'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 liability for long service leave is recognised and measured at the present value of the estimated cash flows to be made in respect of all employees at 30 June 2007. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

Separation and Redundancy

Provision is made for separation and redundancy benefit payments. AIMS recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

Superannuation

Employees of AIMS are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) or the PSS accumulation plan (PSSap).

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap is a defined contribution scheme.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course.

AIMS makes employer contributions to the Employee Superannuation Scheme at rates determined by an actuary to be sufficient to meet the cost to the Government of the superannuation entitlements of AIMS's employees. AIMS accounts for the contributions as if they were contributions to defined contribution plans.

From 1 July 2005, new employees are eligible to join the PSSap scheme.

1.9 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. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

Where a non-current asset is acquired by means of a finance lease, the asset is capitalised at either the fair value of the lease property or, if lower, the present value of minimum lease payments at the inception of the contract and a liability is recognised at the same time and for the same amount.

The discount rate used is the interest rate implicit in the lease. Leased assets are amortised over the period of the lease. Lease payments are allocated between the principal component and the interest expense.

Operating lease payments are expensed on a straight line basis which is representative of the pattern of benefits derived from the leased assets.

1.10 Interest

All interest costs are expensed as incurred.

1.11 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.

1.12 Investments

Investments are measured at their fair value.

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

1.14 Derecognition of Financial Assets and Liabilities

Financial assets are derecognised when the contractual rights to the cash flows from the financial assets expire or the asset is transferred to another entity. In the case of a transfer to another entity, it is necessary that the risks and rewards of ownership are also transferred.

Financial liabilities are derecognised when the obligation under the contract is discharged, cancelled or expires.

1.15 Impairment of Financial Assets

Financial assets are assessed for impairment at each balance date.

Financial Assets held at amortised Cost

If there is objective evidence that an impairment loss has been incurred for loans and receivables, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Income Statement.

1.16 Supplier and other payables

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

1.17 Contingent Liabilities and Contingent Assets

Contingent liabilities and contingent assets are not recognised in the Balance Sheet but are reported 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. Contingent assets are reported when settlement is probable, and contingent liabilities are recognised when settlement is greater than remote.

1.18 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 appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and revenues at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor accounts immediately prior to the restructuring.

1.19 Property, Plant and Equipment

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

Fair values for each class of asset are determined as shown below:

Asset Class	Fair Value measured at:
Buildings	Market Selling Price
Leasehold Improvements	Depreciated replacement costs
Plant and Equipment	Market Selling Price

Following initial recognition at cost, property plant and equipment are carried at fair value less accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

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 surplus and deficit. Revaluation decrements for a class of assets are recognised directly through surplus and deficit 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 asset restated to the revalued amount.

Depreciation

Depreciable property plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to AIMS using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

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

	2007	2006
Buildings and Leasehold Improvements	**10 to 80 years**	10 to 80 years
Plant and Equipment	**3 to 20 years**	3 to 20 years

Impairment

All assets were assessed for impairment at 30 June 2007. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if AIMS were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

1.20 Intangibles

AIMS's intangibles comprise internally developed software for internal use. These assets are carried at cost.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of AIMS's software are 3 to 12 years (2005-06: 3 to 12 years).

All software assets were assessed for indications of impairment as at 30 June 2007.

1.21 Inventories

Inventories held for sale 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.

1.22 Taxation

AIMS is exempt from all forms of taxation except fringe benefits tax (FBT) 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 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 rate current as at balance date. Associated currency gains and losses are not material.

1.24 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.

1.25 Contract Research

AIMS 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 AIMS does not attribute any value in the accounts.

1.26 Consultancies and Grants

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

1.27 Investments

AIMS has interests in:

- Cleveland Biosensors Pty Ltd
- AIMS@ JCU Joint Venture
- Arafura Timor Research Facility Joint Venture

Cleveland Biosensors Pty Ltd

AIMS retains an investment of 5.4% 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 AIMS's accounts.

AIMS@JCU Joint Venture

AIMS 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's 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.

AIMS is responsible for managing the funds on behalf of the joint venture operations. As at 30 June 2007 AIMS held $1,197,594 (2006 $1,687,839) on behalf of the joint venture operations. This is shown as a liability in AIMS's financial statements.

The Arafura Timor Research Facility Joint Venture

AIMS has entered into joint venture operations with the Australian National University. AIMS 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.

Note 2: Events after the Balance Sheet Date

AIMS is not aware of any material events that have occurred since the balance date.

Note 3: Income

Revenue	2007 $'000	2006 $'000
Note 3A: Revenue from Government		
Appropriation:		
Departmental outputs	**24,470**	23,125
Total Revenue from Government	**24,470**	23,125
Note 3B: Sale of goods and rendering of services		
Provision of goods - external entities	**64**	84
Total sale of goods	**64**	84
Rendering of services - related entities	**1,868**	726
Rendering of services - external entities	**4,108**	7,418
Total rendering of services	**5,976**	8,144
Total sale of goods and rendering of services	**6,040**	8,228
Note 3C: Interest		
Deposits	**1,267**	1,060
Total interest	**1,267**	1,060
Note 3D: Revenue from joint ventures		
Joint ventures	**365**	996
Total Revenue from joint ventures	**365**	996
Note 3E: Other revenue		
Insurance claims	**-**	153
Revenue for new research vessel - related entities	**2,750**	-
Other	**91**	14
Total other revenue	**2,841**	167

Note 4: Expenses

	2007 $'000	2006 $'000
Note 4A: Employee benefits		
Wages and salaries	**11,278**	11,065
Superannuation	**1,775**	1,629
Leave and other entitlements	**1,601**	1,998
Separation and redundancies	**1,109**	-
Fringe benefits tax	**229**	239
Total employee benefits	**15,992**	14,931
Note 4B: Suppliers		
Provision of goods – related entities	**5**	7
Provision of goods – external entities	**2,147**	2,123
Rendering of services – related entities	**612**	669
Rendering of services – external entities	**8,387**	8,744
Operating lease rentals:		
Minimum lease payments	**63**	142
Workers compensation premiums	**78**	51
Total supplier expenses	**11,292**	11,736
Which consists of:		
Appointment Expenses	**111**	52
Auditing	**46**	44
Catering subsidy	**64**	98
Chemical and laboratory supplies	**228**	315
Cleaning and ground maintenance	**275**	222
Communications, telephone and postage	**336**	506
Consultancies	**16**	110
Contracting and servicing	**1,633**	1,959
Consumables	**703**	240
Electricity	**579**	524
Equipment and software purchases	**134**	257
Field Costs	**70**	79
Freight	**159**	224
Fuel, oil and gas	**614**	597
Hire of equipment	**298**	572
Insurances	**194**	262
Legal	**82**	54
Licences and fees	**174**	330
Operating lease rentals	**63**	142
Patents and trademarks	**116**	95
Publications, journals and subscriptions	**358**	416
Rent	**126**	116
Repairs and maintenance	**1,375**	1,164
Security	**221**	199
Stationery	**110**	99
Training, seminars and conferences	**94**	133
Travel and accommodation	**1,165**	1,032
Vessels management and staffing	**1,755**	1,716
Victuals	**57**	73
Water	**58**	55
Workers compensation	**78**	51
	11,292	11,736

Note 4: Expenses (cont.)

	2007 $'000	2006 $'000
Note 4C: Depreciation and amortisation		
Depreciation:		
Buildings and leasehold improvements	**1,706**	317
Plant and equipment	**2,138**	2,270
Computer equipment	**346**	(249)
Vehicles	**329**	177
Office equipment	**47**	50
Ships, launches and vessels	**292**	254
Library	**383**	30
Total depreciation	**5,241**	2,849
Amortisation:		
Intangibles - computer software	**113**	100
Total amortisation	**113**	100
Total depreciation and amortisation	**5,354**	2,949
Note 4D: Expenditure on joint ventures		
Depreciation	**14**	45
Other expenditure	**314**	249
Total grants	**328**	294
Note 4E: Interest		
Interest payments	**93**	104
Total interest	**93**	104
Note 4F: Write-down and impairment of assets		
Bad and doubtful debts expense	**-**	262
Total write-down and impairment of assets	**-**	262
Note 4G: Losses from assets sales		
Buildings and leasehold improvements		
Proceeds from sale	**-**	-
Carrying value of assets sold	**5**	-
Plant and equipment		
Proceeds from sale	**(377)**	(559)
Carrying value of assets sold	**432**	687
Intangibles		
Proceeds from sale	**-**	-
Carrying value of assets sold	**3**	-
Total losses from assets sales	**63**	128

Note 5: Financial Assets

	2007 $'000	2006 $'000
Note 5A: Cash and cash equivalents		
Cash on hand	**6**	5
Cash at bank	**132**	224
Total cash and cash equivalents	**138**	229
Note 5B: Trade and other receivables		
Goods and services	**3,191**	3,627
GST receivable from the Australian Taxation Office	**78**	-
Other:		
Loans	**729**	729
Interest	**409**	254
Other receivables	**90**	79
Total other receivables	**1,228**	1,062
Total trade and other receivables (gross)	**4,497**	4,689
Less Allowance for doubtful debts:		
Goods and services	**(147)**	(423)
Other - Loans	**(729)**	(729)
Total allowance for doubtful debts	**(876)**	(1,152)
Total trade and other receivables (net)	**3,621**	3,537
Receivables are aged as follows:		
Not overdue	**3,510**	3,317
Overdue by:		
Less than 30 days	**-**	-
30 to 60 days	**31**	53
61 to 90 days	**51**	28
More than 90 days	**905**	1,291
Total receivables (gross)	**4,497**	4,689
The allowance for doubtful debts is aged as follows:		
Not overdue	**-**	-
Overdue by:		
Less than 30 days	**-**	-
30 to 60 days	**-**	-
61 to 90 days	**-**	-
More than 90 days	**(876)**	(1,152)
Total allowance for doubtful debts	**(876)**	(1,152)
Receivables are represented by:		
Current	**3,621**	3,537
Non-current	**-**	-
Total trade and other receivables (net)	**3,621**	3,537
Note 5C: Investments		
Deposits	**13,484**	16,807
Deposits on behalf of AIMS @ JCU	**1,198**	1,688
Total investments	**14,682**	18,495
Investments are represented by:		
Current	**14,682**	17,495
Non-current	**-**	1,000
Total investments	**14,682**	18,495

Note 6: Non-Financial Assets

	2007 $'000	2006 $'000
Note 6A: Buildings and leasehold improvements		
Buildings and leasehold improvements		
– fair value	**49,383**	48,138
– work in progress	**1,324**	1,387
	50,707	49,525
– accumulated depreciation	**(2,094)**	(420)
Total buildings and leasehold improvements (non-current)	**48,613**	49,105
No indicators of impairment were found for buildings and leasehold improvements.		
Note 6B: Plant and equipment		
Plant and equipment:		
- fair value	**10,927**	9,543
- work in progress	**316**	653
	11,243	10,196
- accumulated depreciation	**(3,012)**	(893)
Total plant and equipment	**8,231**	9,303
Computer equipment		
- fair value	**1,714**	1,184
- accumulated depreciation	**(430)**	(95)
Total computer equipment	**1,284**	1,089
Vehicles:		
- fair value	**1,718**	1,278
– work in progress	**-**	16
	1,718	1,294
- accumulated depreciation	**(284)**	(56)
Total vehicles	**1,434**	1,238
Office equipment:		
- fair value	**340**	91
- accumulated depreciation	**(76)**	(9)
Total office equipment	**264**	82
Ships, launches and vessels:		
- fair value	**3,531**	3,447
– work in progress	**6,361**	92
	9,892	3,539
- accumulated depreciation	**(362)**	(72)
Total ships, launches and vessels	**9,530**	3,467
Library books:		
- fair value	**1,611**	1,611
- accumulated depreciation	**(479)**	(96)
Total library books	**1,132**	1,515
Total Plant and equipment:		
- fair value	**19,841**	17,154
- work in progress	**6,677**	761
	26,518	17,915
- accumulated depreciation	**(4,643)**	(1,221)
Total plant and equipment (non-current)	**21,875**	16,694

No indicators of impairment were found for plant and equipment.
All revaluations are conducted in accordance with the revaluation policy stated at Note 1.

Note 6: Non-Financial Assets (cont.)

Note 6C: Intangibles

Computer software at cost:		
Internally developed – in use	**506**	474
Work in progress at cost	**-**	46
	506	520
Accumulated amortisation	**(332)**	(219)
Total intangibles (non-current)	**174**	301

No indicators of impairment were found for intangible assets.

Note 6D: Inventories

Inventories held for sale - Finished Goods	**36**	39
Inventories held for distribution	**194**	200
Total inventories (current)	**230**	239

No items of inventory are recognised at fair value less cost to sell.

Note 6E: Other non-financial assets

Workshop jobs in progress	**56**	-
Prepayments	**215**	288
Total other non-financial assets	**271**	288
Other non-financial assets are represented by:		
Current	**270**	268
Non-current	**1**	20
Total investments	**271**	288

No indicators of impairment were found for other non-financial assets.

Note 6: Non-Financial Assets

Note 6F: Analysis of property, plant and equipment

TABLE A – Reconciliation of the opening and closing balances of property, plant and equipment (2006-07)

	Buildings & Improvements $'000	Plant & Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Ships, Vessels & Launches $'000	Library Books $'000	Total $'000
As at 1 July 2006								
Gross book value	**49,570**	**10,196**	**1,184**	**1,294**	**91**	**3,539**	**1,611**	**67,485**
Accumulated depreciation/amortisation and impairmen	**(464)**	**(893)**	**(95)**	**(56)**	**(9)**	**(72)**	**(96)**	**(1,685)**
Net book value 1 July 2006	**49,106**	**9,303**	**1,089**	**1,238**	**82**	**3,467**	**1,515**	**65,800**
Additions:								
by purchase	**1,536**	**1,064**	**535**	**927**	**-**	**6,361**	**-**	**10,423**
Reclassification	**(296)**	**31**	**19**	**-**	**229**	**-**	**-**	**(17)**
Depreciation/amortisation expense	**(1,706)**	**(2,138)**	**(346)**	**(329)**	**(47)**	**(292)**	**(383)**	**(5,241)**
Other movements - Depreciation on share of ATRF Building	**(14)**	**-**	**-**	**-**	**-**	**-**	**-**	**(14)**
Disposals:								**-**
Other disposals	**(13)**	**(29)**	**(13)**	**(402)**	**-**	**(6)**	**-**	**(463)**
Net book value 30 June 2007	**48,613**	**8,231**	**1,284**	**1,434**	**264**	**9,530**	**1,132**	**70,488**
Net book value as of 30 June 2007 represented by:								
Gross book value	**50,707**	**11,243**	**1,714**	**1,718**	**340**	**9,892**	**1,611**	**77,225**
Accumulated depreciation/amortisation and impairment	**(2,094)**	**(3,012)**	**(430)**	**(284)**	**(76)**	**(362)**	**(479)**	**(6,737)**
	48,613	**8,231**	**1,284**	**1,434**	**264**	**9,530**	**1,132**	**70,488**

Note 6: Non-Financial Assets (cont.)

TABLE A – Reconciliation of the opening and closing balances of property, plant and equipment (2005-06)

	Buildings & Improvements $'000	Plant & Equipment $'000	Computer Equipment $'000	Vehicles $'000	Office Equipment $'000	Ships, Vessels & Launches $'000	Library Books $'000	Total $'000
As at 1 July 2005								
Gross book value	33,071	13,899	3,002	1,374	248	4,384	2,696	58,674
Accumulated depreciation/amortisation and impairment	(3,354)	(3,854)	(2,057)	(279)	(116)	(803)	(564)	(11,027)
Net book value 1 July 2005	29,717	10,045	945	1,095	132	3,581	2,132	47,647
Additions:								
by purchase	1,766	1,730	328	917	23	260	(2)	5,022
Revaluations and impairments through equity	18,085	(178)	(421)	(83)	(20)	(108)	(585)	16,690
Reclassification	-	-	-	-	-	-	-	-
Depreciation/amortisation expense	(318)	(2,269)	249	(177)	(50)	(254)	(30)	(2,849)
Other movements - Depreciation on share of ATRF Building	(45)	-	-	-	-	-	-	(45)
Disposals:								-
Other disposals	(99)	(25)	(12)	(514)	(3)	(12)	-	(665)
Net book value 30 June 2006	49,106	9,303	1,089	1,238	82	3,467	1,515	65,800
Net book value as of 30 June 2006 represented by:								
Gross book value	49,570	10,196	1,184	1,294	91	3,539	1,611	67,485
Accumulated depreciation/amortisation and impairment	(464)	(893)	(95)	(56)	(9)	(72)	(96)	(1,685)
	49,106	9,303	1,089	1,238	82	3,467	1,515	65,800

Note 6: Non-Financial Assets (cont.)

Note 6G: Intangibles (disclose each class)

Table B: Reconciliation of the opening and closing balances of intangibles (2006-07).

	Computer Software $'000	Total $'000
As at 1 July 2006		
Gross book value	**520**	**520**
Accumulated depreciation/amortisation and impairment	**(219)**	**(219)**
Net book value 1 July 2006	**301**	**301**
Additions:		
by purchase or internally developed	**18**	**18**
Reclassifications	**17**	**17**
Amortisation	**(113)**	**(113)**
Disposals:		
other disposals	**(49)**	**(49)**
Net book value 30 June 2007	**174**	**174**
Net book value as of 30 June 2007 represented by:		
Gross book value	**506**	**506**
Accumulated depreciation/amortisation and impairment	**(332)**	**(332)**
	174	**174**

Table B: Reconciliation of the opening and closing balances of intangibles (2005-06).

	Computer Software $'000	Total $'000
As at 1 July 2005		
Gross book value	347	347
Accumulated amortisation and impairment	(128)	(128)
Net book value 1 July 2005	219	219
Additions:		
by purchase or internally developed	202	202
Amortisation	(100)	(100)
Disposals:		
other disposals	(19)	(19)
Net book value 30 June 2006	302	302
Net book value as of 30 June 2006 represented by:		
Gross book value	520	520
Accumulated depreciation/amortisation and impairment	(219)	(219)
	301	301

Note 7: Payables

	2007 $'000	2006 $'000
Note 7A: Suppliers		
Trade creditors	**4,427**	4,197
Total supplier payables	**4,427**	4,197
All supplier payables are current liabilities		
Settlement is usually made net 30 days.		
Note 7B: Other payables		
Consultancies and grants		
Non-profit institutions	**536**	1,396
Profit Institutions	**243**	35
Joint ventures	**1,198**	1,688
Total other payables	**1,977**	3,119
Other payables are represented by:		
Current	**1,368**	1,931
Non-current	**609**	1,188
Total other payables	**1,977**	3,119

Note 8: Provisions

	2007 $'000	2006 $'000
Note 8A: Employee provisions		
Salaries and wages	**132**	117
Annual Leave	**-**	2,651
Long Service Leave	**-**	3,271
Superannuation	**-**	717
Separations and redundancies	**(132)**	-
Workers Compensation	**27**	26
FBT	**-**	57
Total employee provisions	**27**	6,839
Employee provisions are represented by:		
Current	**6,276**	6,405
Non-current	**330**	434
Total employee provisions	**6,606**	6,839

The classification of current includes amounts for which there is not an unconditional right of deferral of one year, hence in the case of employee provisions the above classification does not equal the amount expected to be settled within one year of reporting date. Employee provisions expected to be settled in one year $3,008,000 (2006: $3,095,000), in excess of one year $3,598,000 (2006: $3,744,000).

Note 9: Cash Flow Reconciliation

	2007 $'000	2006 $'000
Reconciliation of cash and cash equivalents as per Balance Sheet to Cash Flow Statement		
Report cash and cash equivalents as per:		
Cash Flow Statement	**14,820**	18,724
Balance Sheet	**14,820**	18,724
Difference	**-**	-
Balance Sheet items comprising above cash:		
Cash and cash equivalents	**138**	229
Investments	**14,682**	18,495
	14,820	18,724
Reconciliation of operating result to net cash from operating activities:		
Operating result	**1,861**	3,172
Depreciation /amortisation	**5,354**	2,994
Net write down of non-financial assets	**-**	262
Losses on disposal of assets	**63**	128
(Increase) / decrease in net receivables	**(84)**	(2,497)
(Increase) / decrease in inventories	**9**	(19)
(Increase) / decrease in other assets	**17**	448
Increase / (decrease) in employee provisions	**(233)**	722
Increase / (decrease) in supplier payables	**230**	2,880
Increase / (decrease) in other payables	**(1,142)**	(1,136)
Net cash from / (used by) operating activities	**6,075**	6,954

Note 10: Contingent Liabilities and Assets

Quantifiable Contingencies

Contingent Assets

AIMS is holding a bank guarantee for $51,400 which covers the security and retention for the contract AIMS is holding bank guarantees of $6,084,247 from Tenix Defence Pty Ltd for the security on the

Unquantifiable Contingencies

At 30 June 2007, AIMS is not aware of any material unquantifiable contingencies.

Note 11: Directors Remuneration

	2007	2006
	No.	**No.**
The number of directors of AIMS included in these figures are shown below in the relevant remuneration bands:		
$ Nil - $ 14,999	**2**	2
$ 15,000 - $ 29,999	**3**	3
$ 30,000 - $ 44,999	**1**	1
$ 270,000 - $ 284,999	**-**	1
$ 285,000 - $ 299,999	**1**	-
Total number of directors of AIMS	**7**	7
Total remuneration received or due and receivable by directors of AIMS:	**$ 417,594**	$ 387,062

The Directors (members of council) of AIMS 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 12: Related Party Disclosures

Loans to Directors and Director-related Entities
There were no loans made to any Directors or Director related entities during the period (2006: nil)

Other Transactions with Directors or Director-related Entities
There were no other transactions with Directors or Director related entities during the period (2006: nil)

Note 13: Executive Remuneration

	2007	2006
	No.	**No.**
The number of senior executives who received or were due to receive total remuneration of $130,000 or more:		
$130 000 to $144 999	**1**	3
$160 000 to $174 999	**1**	1
$220 000 to $234,999	**1**	-
Total	**3**	4
The aggregate amount of total remuneration of executives shown above:	**$ 530,738**	$ 560,600
The aggregate amount of separation and redundancy/termination benefit payments during the year to executives shown above:	**$ 57,663**	-

Note 14: Remuneration of Auditors

	2007 $	2006 $
Financial statement audit services are provided to AIMS by the Auditor-General.		
The fair value of the services provided to AIMS was:	**45,500**	43,500
	45,500	43,500

No other services were provided by the Auditor-General.

Note 15: Average Staffing Levels

	2007 No.	2006 No.
The average staffing levels for AIMS during the year were:	**165**	165

Note 16: Financial Instruments

Note 16A: Interest Rate Risk

Financial Instrument	Note	Floating Interest Rate		Fixed Interest Rate Maturing In						Non-Interest Bearing		Total		Weighted Average Effective Interest Rate	
				1 Year or Less		1 to 5 Years		> 5 Years							
		2007 $'000	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 $'000**	2006 $'000	**2007 %**	2006 %
Financial Assets															
Cash on hand	5A	-	-	-	-	-	-	-	-	**6**	5	**6**	5	**0.00%**	0.00%
Cash at bank	5A	**132**	224	-	-	-	-	-	-	-	-	**132**	224	**3.75%**	3.25%
Receivables for goods and services	5B	-	-	-	-	-	-	-	-	**3,191**	3,582	**3,191**	3,582	**0.00%**	0.00%
Other	5B	-	-	-	-	**729**	729	-	-	**499**	333	**1,228**	1,062	**5.76%**	5.79%
Investments	5C	-	-	**14,682**	17,495	-	1,000	-	-	-	-	**14,682**	18,495	**6.14%**	5.84%
Total		**132**	224	**14,682**	17,495	**729**	1,729	-	-	**3,696**	3,920	**19,239**	23,368		
Total Assets												**89,604**	88,888		
Financial Liabilities															
Trade creditors	7A	-	-	-	-	-	-	-	-	**4,427**	4,197	**4,427**	4,197	**0.00%**	0.00%
Other payables	7B	-	-	-	-	-	-	-	-	**1,977**	3,119	**1,977**	3,119	**0.00%**	0.00%
Total		-	-	-	-	-	-	-	-	**6,404**	7,316	**6,404**	7,316		
Total Liabilities												**13,010**	14,155		

Note 16: Financial Instruments (cont.)

Note 16B: Fair Values of Financial Assets and Liabilities

	Notes	2007 Total Carrying Amount $'000	2007 Aggregate Fair Value $'000	2006 Total Carrying Amount $'000	2006 Aggregate Fair Value $'000
Departmental Financial Assets					
Cash on Hand	5A	**6**	**6**	5	5
Cash at Bank	5A	**132**	**132**	224	224
Receivables for goods and services (net)	5B	**3,043**	**3,043**	3,158	3,158
Other receivables (net)	5B	**499**	**499**	333	333
Investments	5C	**14,682**	**14,682**	18,495	18,495
Total Financial Assets		**18,362**	**18,362**	22,215	22,215
Financial Liabilities (Recognised)					
Trade creditors	7A	**4,427**	**4,427**	4,197	4,197
Other payables	7B	**1,977**	**1,977**	3,119	3,119
Total Financial Liabilities (Recognised)		**6,404**	**6,404**	7,316	7,316

Note 16C: Credit Risk Exposures

AIMS's maximum exposures to credit risk at reporting date in relation to each class of recognised financial assets is the carrying amount of those assets as indicated in the Balance Sheet.
AIMS has no significant exposures 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.

Note 17: Appropriations

Table A: Acquittal of Authority to Draw Cash from the Consolidated Revenue Fund for Ordinary Annual Services Appropriations and borrowings

Particulars	Departmental Outputs		Total	
	2007	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000
Balance carried from previous period	**-**	-	**-**	-
Appropriation Act:				
Appropriation Act (No.1)	**23,631**	23,125	**23,631**	23,125
Appropriation Act (No.3)	**839**	-	**839**	-
Total appropriation available for payments	**24,470**	23,125	**24,470**	23,125
Cash payments made during the year (GST inclusive)	**24,470**	23,125	**24,470**	23,125
Appropriations credited to Special Accounts (excluding GST)	**-**	-	**-**	-
Balance of Authority to Draw Cash from the Consolidated Revenue Fund	**-**	-	**-**	-
Represented by				
Departmental appropriations receivable	**-**	-	**-**	-
Total	**-**	-	**-**	-

Departmental and non-operating appropriations do not lapse at financial year end. However, the responsible Minister may decide that part or all of a departmental or non-operating appropriation is not required and request the Finance Minister to reduce that appropriation. The reduction in the appropriation is effected by the Finance Minister's determination and is disallowable by Parliament.

Note 18: Reporting of Outcomes

Note 18A: Outcomes of AIMS

AIMS is structured to meet one outcome:
Outcome 1: Enhanced scientific knowledge supporting the protection and sustainable development of Australia's marine resources.

Only one Output is identified.

Note 18B: Net Cost of Outcome Delivery

	Outcome 1		Total	
	2007	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000
Expenses				
Departmental	**33,122**	30,404	**33,122**	30,404
Total expenses	**33,122**	30,404	**33,122**	30,404
Costs recovered from provision of goods and services to the non government sector				
Departmental	**4,172**	7,502	**4,172**	7,502
Total costs recovered	**4,172**	**7,502**	**4,172**	**7,502**
Other external revenues				
Departmental				
Interest	**1,267**	1,060	**1,267**	1,060
Revenues from joint ventures	**365**	996	**365**	996
Other revenue	**2,841**	167	**2,841**	167
Total other external revenues	**4,473**	2,223	**4,473**	2,223
Net cost/(contribution) of outcome	**24,477**	20,679	**24,477**	20,679

Note 18C: Major Classes of Departmental Revenues and Expenses by Outputs

Outcome 1	**Output 1.1**		**Outcome 1 Total**	
	2007	2006	**2007**	2006
	$'000	$'000	**$'000**	$'000
Departmental expenses				
Employees	**15,992**	14,931	**15,992**	14,931
Suppliers	**11,292**	11,736	**11,292**	11,736
Depreciation and amortisation	**5,354**	2,949	**5,354**	2,949
Expenditure on joint ventures	**328**	294	**328**	294
Interest	**93**	104	**93**	104
Write-down and impairments of assets	**-**	262	**-**	262
Losses from asset sales	**63**	128	**63**	128
Total departmental expenses	**33,122**	30,404	**33,122**	30,404
Funded by:				
Revenues from Government	**24,470**	23,125	**24,470**	23,125
Goods and services	**6,040**	8,228	**6,040**	8,228
Interest	**1,267**	1,060	**1,267**	1,060
Revenue from joint ventures	**365**	996	**365**	996
Other revenue	**2,841**	167	**2,841**	167
Total departmental revenues	**34,983**	33,576	**34,983**	33,576

Net costs shown include intra-government costs that are eliminated in calculating the actual Budget outcome.

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

	2007 $'000	2006 $'000
Joint Ventures		
Arafura Timor Research Facility Joint Venture		
AIMS has taken up its 50% share of investment		
Income Statement		
Revenue from joint venture	**311**	229
Expenditure from Joint Venture	**310**	277
Net operating (loss)/surplus from joint venture	**1**	(48)
Represented:		
Balance Sheet		
Cash in bank	**75**	140
Accounts receivable	**33**	5
Total current assets	**108**	145
Building	**1,673**	1,589
Motor vehicles	**11**	11
Provision for Depreciation	**(79)**	(45)
Total non current assets	**1,605**	1,555
Total included in AIMS equity	**1,713**	1,700
AIMS@JCU Joint Venture		
AIMS has taken up its share of investment		
Income Statement		
Revenue from joint venture	**55**	768
Expenditure by AIMS on joint venture	**18**	18
Net operating surplus from joint venture	**37**	750
Represented:		
Balance Sheet		
Investments	**1,198**	1,688
Total current assets	**1,198**	1,688
Other payables	**1,198**	1,688
Total liabilities	**1,198**	1,688
Total included in AIMS equity	**-**	-

SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

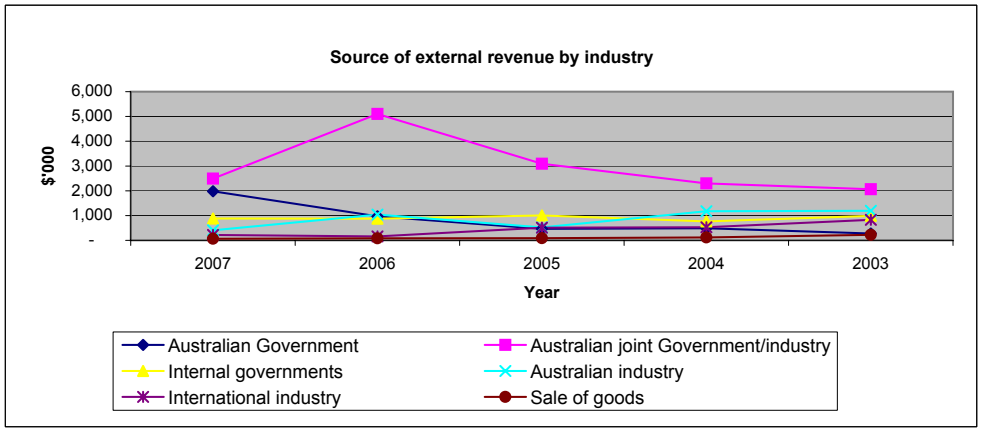
Revenue comparison

	2007	2006	2005	2004	2003
	$'000	$'000	$'000	$'000	$'000
Appropriation revenue					
Operating	**18,913**	18,469	18,160	17,841	17,202
Asset replacement	**5,557**	4,656	4,323	4,293	3,636
Capital and infrastucture	**-**	-	-	-	3,420
Capital use charge	**-**	-	-	-	5,256
Total appropriation revenue	**24,470**	23,125	22,483	22,134	29,514
Non-appropriation revenue					
Sale of goods and rendering of services	**6,040**	8,228	5,689	5,368	5,576
Interest	**1,267**	1,060	985	790	674
Revenues from joint ventures	**365**	996	2,696	2,142	-
Other revenue	**2,841**	167	109	158	318
Total non-appropriation revenue	**10,513**	10,451	9,479	8,458	6,568
Total Revenue	**34,983**	**33,576**	**31,962**	**30,592**	**36,082**
Non-appropration ratio	**30%**	**31%**	**30%**	**28%**	**18%**

Sale of goods and rendering of services includes consultancies, grants and contract collaborations.
Non-appropriation ratio is percentage non-appropriation revenue of total revenue.

Source of sale of goods and rendering of services

Australian Government	**1,980**	971	466	486	278
Australian joint Government/industry	**2,489**	5,098	3,093	2,298	2,065
International governments	**880**	875	1,005	765	986
Austalian industry	**407**	1,042	524	1,173	1,195
International industry	**220**	158	512	528	828
Sale of goods	**64**	84	89	118	224
	6,040	8,228	5,689	5,368	5,576



SUPPLEMENTARY FINANCIAL INFORMATION (UNAUDITED)

Cost of Output by Research Teams

	Variable $'000	Salaries $'000	Fixed $'000	Overheads $'000	**Total $'000**
Water Quality and Ecocystem Health					
Appropriation	140	738	832	1,269	**2,979**
External	571	1,019	106	2,141	**3,837**
	711	1,757	938	3,410	**6,816**
Marine Biodiversity: Status and Trends					
Appropriation	350	1,227	1,012	2,141	**4,730**
External	933	413	517	786	**2,649**
	1,283	1,640	1,529	2,927	**7,379**
Climate Change and Ecological Impacts					
Appropriation	348	710	638	1,222	**2,918**
External	258	98	106	223	**685**
	606	808	744	1,445	**3,603**
Microbiology and Biodiscovery					
Appropriation	185	777	1,167	1,336	**3,465**
External	51	193	11	332	**587**
	236	970	1,178	1,668	**4,052**
Marine Biodiversity: Sustainable Use					
Appropriation	334	1,189	805	2,045	**4,373**
External	297	224	245	466	**1,232**
	631	1,413	1,050	2,511	**5,605**
Triennium Integration and Synthesis					
Appropriation	150	1,832	328	3,152	**5,462**
External	58	44	10	92	**204**
	208	1,876	338	3,244	**5,666**
Total Summary					
Appropriation	1,507	6,473	4,782	11,166	**23,928**
External	2,168	1,991	995	4,040	**9,194**
Total	3,675	8,464	5,777	15,206	**33,122**

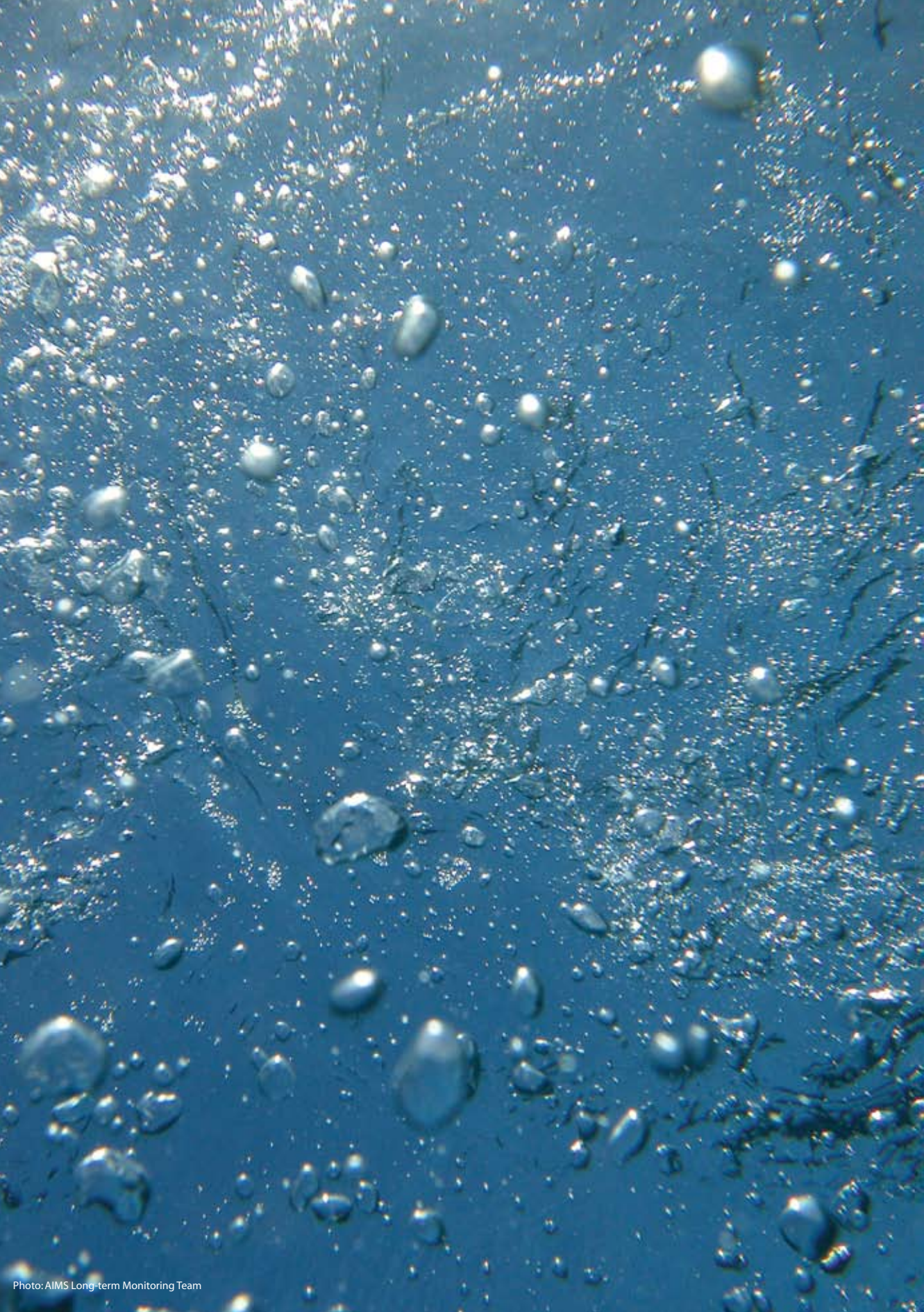


Photo: AIMS Long-term Monitoring Team

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 cooperate 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 Chair (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. 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.

3. Performance Indicators

AIMS has reported against indicators that measure the quality, efficiency and effectiveness of its research effort since they were introduced in the AIMS funding agreements with government. The indicators agreed between AIMS, the Minister for Education, Science and Training and the Minister for Finance in the 2004-2007 funding agreement are provided below. Performance against these indicators are detailed in the Performance Measurement section of this report (see p 45-59).

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 2004–2005. Aim for timely implementation of recommendations.	Ongoing
Co-investment in research	Joint ventures/strategic alliances. Number of collaborations (collaborative research projects).	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

[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.

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

4. Science Publications 2006

JOURNAL ARTICLES

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Boyett, Holly (2006) The ecology and microbiology of black band disease and brown band syndrome on the Great Barrier Reef. Thesis (MSc). James Cook University, Townsville

Brinkman, Richard (2006) Wave attenuation in mangrove forests: an investigation through field and theoretical studies. Thesis (PhD). James Cook University, Townsville

de la Vega, Enrique (2006) A molecular approach to study the interaction between environmental stress, immune response and disease in the black tiger prawn (*Penaeus monodon*). Thesis (PhD), University of Queensland, St Lucia.

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Gagliano, Monica (2006) The role of early life history traits on the survival of a coral reef fish. Thesis (PhD), James Cook University, Townsville.

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Howells, Emily (2006) Fine-scale genetic diversity of zooxanthella (*Symbiodinium*) populations in soft corals through space, time and early host development. Thesis (BSc (Hons)). James Cook University, Townsville.

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Sampey, Alison (2006) Distributions and diets of the larvae of tropical shorefishes near NorthWest Cape of Australia. Thesis (MSc). James Cook University, Townsville.

Stride, Megan (2006) The nutrient composition and nutritional value of 'new' species of tropical microalgae for use in aquaculture. Thesis (BSc Hons)), James Cook University, Townsville.

Wade, Nicholas (2006) Crustacean shell colour formation and the white phase of the western rock lobster, *Panulirus cygnus*. Thesis (PhD). University of Queensland.

Whalan, Steve (2006) Reproductive biology and population genetics of a tropical sponge. Thesis (PhD), James Cook University, Townsville.

5. 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)
Great Barrier Reef Foundation - International Scientific Advisory Committee (GBRF – ISAC)
International Atomic Energy Agency (Expert Consultant to United Nations Development Project 'Transfer of Receptor Binding Assay for Harmful Algal Toxins')
International Marine Biotechnology Association
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
Australian Fisheries Management Authority Northern Shark Stock Assessment Group

Australian Government Department of the Environment and Water Resources - National Shark Recovery Group
Australian Government Department of the Environment and Water Resources BioIndustry Panel
Australian Integrated Ocean Observing System (AusIOOS) Working Group
Australian Marine Sciences Association (AMSA) National Committee
Australian Marine Sciences Association (AMSA) Northern Territory President
Australian National Sportfishing Association (ANSA) Scientific Research Foundation
Australian Ocean Data Centre Joint Facility
Australian Research Council, Centre of Excellence, Centre Advisory Board
Australian Research Council Expert Review Committee
Australian Research Council Oz Reader
Australian Research Council INTREADER
Bioscience North Australian Science Advisory Committee
Commonwealth Inter-departmental Committee on Access to Genetic Resources
Coordination Committee on Science and Technology (CCST)
CRC Reef Board
CRC Reef Scientific Advisory Committee
CRC Reef Task Review Committee
CRC Torres Strait Board
Darwin Harbour Research Advisory Committee
DEW-Ausbiotech Bioindustry Panel
Expert Marine Science Panel for Woodside Energy Ltd
FRDC Prawn Domestication Steering Committee
GBR Seabed Biodiversity Project Steering Group – Chair
GBRMPA Fisheries Research Advisory Committee
GBRMPA Water Quality and Coastal Research Advisory Committee
James Cook University Marine and Aquaculture Research Facilities Committee
Joint CRC Reef & Rainforest Catchment to Reef Programme Steering Group
Integrated Marine Observing System Board
Marine and Tropical Sciences Research Facility (MTSRF) GBR Operations Committee
Marine and Tropical Sciences Research Facility (MTSRF) Great Barrier Reef Steering Committee
Marine and Tropical Sciences Research Facility (MTSRF) Water Quality Steering Committee
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
NT 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 Primary Industries and Fisheries HarvestMac
QDPI&F HarvestMac Aquarium fish working group
QDPI&F HarvestMAC Coral fishery working group

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 and Rainforest Research Centre (Director)
Reef Water Quality Protection Plan (RWQPP) Steering Committee
Reef Water Quality Protection Plan (RWQPP) Programme 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
WA Physical Oceanographic Coordinating Group (WAPOCG)
Western Australian Global Ocean Observing System (WAGOOS)
Western Australian Marine Science Institution (WAMSI) Board

6. Research Performance Assessment

Appendix 6A records the timing and panel membership of five reviews conducted as part of responding to the Australian Government's "Quality and Accessibility Framework for Publicly Funded Research Agencies". Appendix 6B shows the performance indicators used by the four reviews in 2006-2007.

A. EXPERT PANELS

Biomolecular Resources and Innovation reviewed in November 2005 by:

- Prof Peter Bergquist, Biotechnology Research Institute, Macquarie (Chair)
- Prof Rob Capon, Institute for Molecular Biology, UQ
- Dr. Shirley Pomponi, Harbor Branch Oceanographic Institute, Florida
- Prof Peter Steinberg, Centre for Marine Biofouling and Bio-Innovation, UNWS

Water Quality in the GBRWHA reviewed in June 2006 by:

- Prof Don Kinsey, Tropical Environmental Sciences and Geography, JCU (Chair)
- Prof Linda Blackall, Environmental Biotechnology CRC, Brisbane (and UQ)
- Prof Chris Crossland, IGBP Land-Ocean Interactions in the Coastal Zone, Netherlands (and USC)
- Prof Steve Smith, Centro de Investigación Científíca y de Educación Superior de, Mexico

Environmental Change and Impacts reviewed in July 2006 by:

- Prof Roger Bradbury, Research School of Asian & Pacific Studies, ANU (Chair)
- Dr Eldon Ball, Research School of Biological Sciences, ANU

Dr John Middleton, South Australian Research & Development Institute, Adelaide
Prof Sandy Tudhope, School of Geosciences, University of Edinburgh, Scotland

Biodiversity* reviewed in November 2006 by:
Prof Roger Bradbury, Research School of Asian & Pacific Studies, ANU (Chair)
Dr Alan Butler, CSIRO Marine and Atmospheric Research, Cleveland
Prof Paul Dayton, Scripps Institution of Oceanography, California
Dr Barry Russell, Museum & Art Gallery of the Northern Territory, Darwin

*Combining the teams called 'Biodiversity in New Areas' and 'Status and Trends'

Tropical Aquaculture reviewed in April 2007 by:
Prof Leigh Owens, Microbiology & Immunology, JCU (Chair)
Dr Yves Harache, IFREMER, New Caledonia
Prof John Lucas, Centre for Marine Studies, UQ
Dr John Volkman, Environment Program, Aquafin CRC (and CSIRO)

B. Indicators for RPA Reviews
Science Quality

Score	Explanation	
5	Benchmark	Sustained scientific leader – well recognised in the international research community for this.
4	Strong	Able to set and sustain new scientific/technical directions within the international research community.
3	Favourable	Able to maintain a good position in the international research community 'pack' not a scientific leader except in developing niches (not mainstream areas).
2	Tenable	Not able to set or sustain independent scientific/technical directions – a sense of being continually a follower.
1	Weak	Declining quality of scientific/technical output compared with other research groups. Often a short term 'fire-fighting' focus.

User impact [1]

Score	Explanation	
5	Benchmark	Research results used to set the pace and direction of scientifically-based commercial, environmental, community or policy development – recognised by users for this.
4	Strong	Research results able to be used by organisations to distinguish themselves from peers or competitors.
3	Favourable	Research results able to be used by organisations to improve their position relative to peers or competitors.
2	Tenable	Research results able to be used by organisations to maintain, but not improve, their position relative to peers or competitors. Research results not able to be used to differentiate organisations from their peers or competition.
1	Weak	Research results not able to be used by organisations to even maintain their position relative to peers or competitors.

[1] Users of marine science and technology include government, research community, industry, environment managers, and public

7. 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 on page 61 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 2007-2011	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.

Glossary

ACRONYMS AND ABBREVIATIONS

ACIAR	Australian Centre of International Agricultural Research
AIMS	Australian Institute of Marine Science
AIMS Act	Australian Institute of Marine Science Act 1972
ANAO	Australian National Audit Office
ARC	Australian Research Council
ATSEF	Arafura-Timor Sea Experts Forum
ATRF	Arafura-Timor Research Facility
AusAID	Australian Government overseas aid program
BRI	Biomolecular Resources and Innovation
CAC Act	Commonwealth Authorities and Companies Act 1997
CDU	Charles Darwin University
CoML	Census of Marine Life
CEO	Chief Executive Officer
CRC	Cooperative Research Centre
CRC Reef	Cooperative Research Centre for the Great Barrier Reef World Heritage Area
CREON	Coral Reef Environmental Observatory Network
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEST	Australian Government Department of Education, Science and Training
DEW	Australian Government Department of the Environment and Water Resources (formerly the Department of the Environment and Heritage)
DFAT	Australian Government Department of Foreign Affairs and Trade
EAP	Employee Assistance Programme
EEO	Equal Employment Opportunity
EMP	Environment Management Plan

EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
ESI	Essential Science Indicators
FAO	Food and Agriculture Organization of the United Nations
FOI Act	Freedom of Information Act 1982
FRDC	Fisheries Research and Development Corporation
FRV	Fisheries research vessel
GBR	Great Barrier Reef
GBRMPA	Great Barrier Reef Marine Park Authority
GBROOS	Great Barrier Reef Ocean Observing System
GA	Geosciences Australia
GBRWHA	Great Barrier Reef World Heritage Area
HOCOLEA	Heads of Commonwealth Operational Law Enforcement Agencies
ICEMAN	International Conference and Exhibition on Mangroves of Indian and Western Pacific Oceans
ICP	Investment Capital Partners
IFREMER	Institut français de recherche pour l'exploitation de la mer (French Research Institute for Exploitation of the Sea)
IMOS	Integrated Marine Observing System
IP	Intellectual property
IPCC	Intergovernmental Panel on Climate Change
ISI	Institute for Scientific Information
JCU	James Cook University
MMP	Marine Monitoring Programme
MPAs	Marine Protected Areas
MTSRF	Marine and Tropical Sciences Research Facility
NCRIS	National Collaborative Research Infrastructure Strategy
NOAA	United States National Oceanic and Atmospheric Administration
NRPs	National Research Priorities
OH&S Act	Occupational Health and Safety (Commonwealth Employment) Act 1991
QDPI&F	Queensland Department of Primary Industries and Fisheries
QM	Queensland Museum
R&D	Research and development
Rainforest CRC	Cooperative Research Centre for Tropical Rainforest Ecology and Management
RICA	Research Institute for Coastal Aquaculture
RV	Research vessel
RWQPP	Reef Water Quality Protection Plan
TAFE	Technical and Further Education (Queensland Government)
UN	United Nations
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICPOLOS	United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea
UNSW	University of New South Wales
WAMSI	Western Australian Marine Science Institution
WHA	World Heritage Area
WISE	Women in Science and Engineering

Compliance Index

Alphabetical Index