Australian Government

Australian Institute of Marine Science

THE AIMS INDEX OF MARINE INDUSTRY

December 2010

AIMS: Australia's tropical marine research agency.

PREFACE

Australia's marine domain is crucial to our future, with more than 70 per cent of Australian territory lying beneath the ocean.

Never has it been more important than today, to understand and sustainably manage the millions of square kilometres of waters that constitute the national marine estate.

The oceans surrounding us may hold answers to the biggest issues now facing all of humanity: climate and climate change; environmental sustainability; economic growth; national security; energy security and food security.

And yet we understand very little about them.

The *AIMS Index of Marine Industry* brings together previously dispersed information, into a single document illustrating the extent of the marine industries sector contribution to the Australian economy.

AIMS released the first Index of Marine Industry in 2008 to highlight the contribution by the marine industries sector. Before this, the benefits had not been considered in terms of a single category – the 'marine industries' sector.

The increase in the sector's value between 2001-02 and 2008-09 by some 80 per cent reinforces the need for a document such as this, and highlights the little-acknowledged fact that Australia is truly a marine nation.

The role of the Australian Institute of Marine Science is to study the oceans and coastal ecosystems of northern Australia, to provide the scientific rigour underpinning policy related to our marine domain.

This year's AIMS Index shows continued and substantial growth in the marine industries sector in 2008-09, once again making a similar contribution to that of the agricultural sector, one of the traditional cornerstones of the economy.

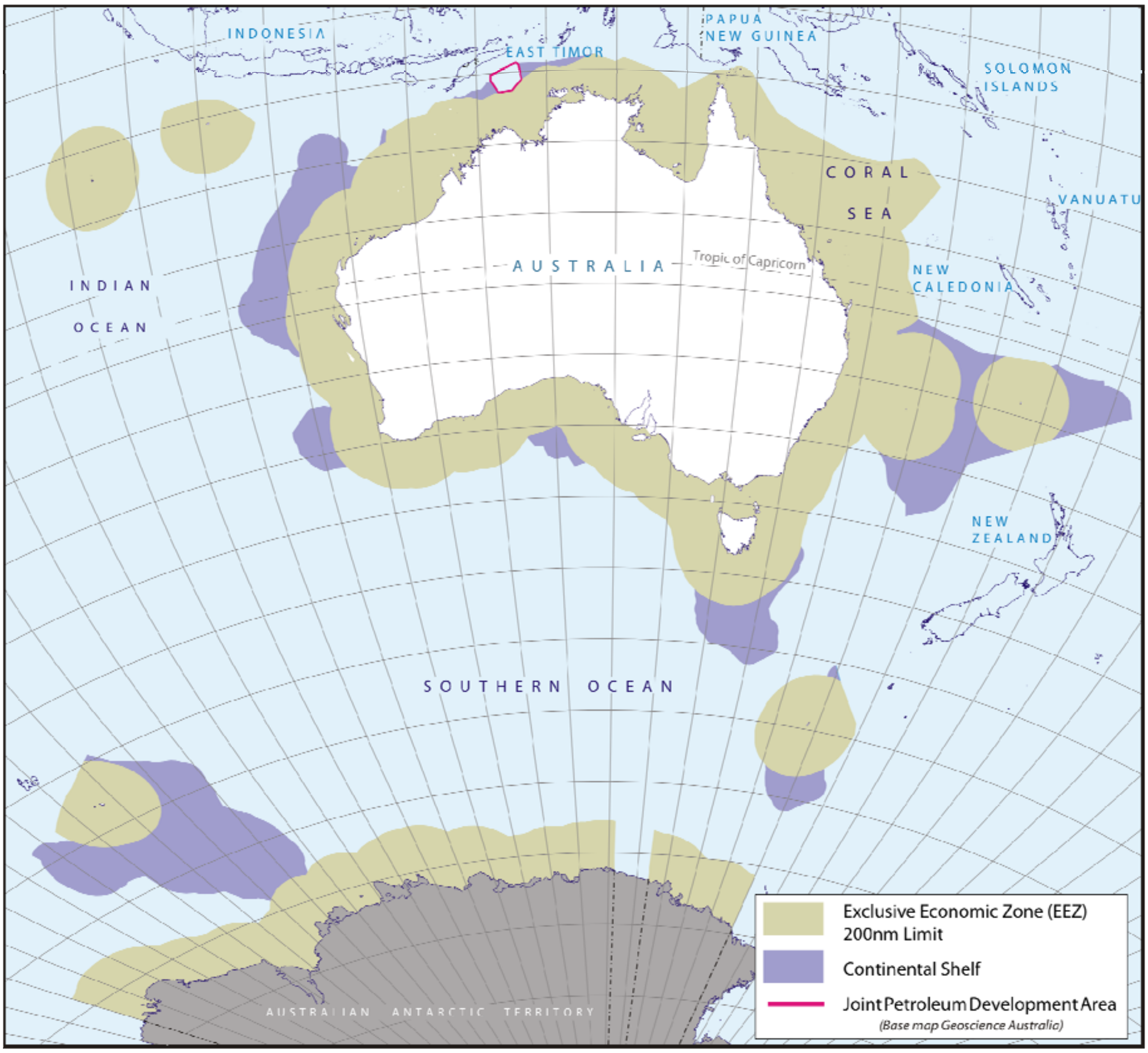
The total measurable value of economic activity based in the marine environment in Australia in 2008-09 was around $44 billion. The sector grew by 6 per cent between 2007-08 and 2008-09.

This was largely driven by significant growth in natural gas production (72 per cent) but overall, marine industries held their ground in the face of the global economic downturn.

Offshore oil and gas makes up over 50 per cent of the economic value of Australia's marine industry and continues to grow, increasing in value by 12 per cent between 2007-08 and 2008-09. This is despite a fall in the value of oil production due to declining output and lower prices. However, oil exploration continues to grow and natural gas is expanding rapidly.

It must be noted that the drop in total value for marine-based industry from the total provided in the previous Index is due to implementation of new methodology by the Australian Bureau of Statistics used to calculate the Statistics Tourism Satellite Account.

The 2010 release of the *AIMS Index of Marine Industry* once again highlights the importance of Australia's marine industries sector and why it is in the national interest to understand and sustainably manage our precious ocean resources.


INDONESIA
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INDIAN
OCEAN
NEW
ZEALAND
SOUTHERN OCEAN
AUSTRALIAN ANTARCTIC TERRITORY
Exclusive Economic Zone (EEZ)
200nm Limit
Continental Shelf
Joint Petroleum Development Area
(Base map Geoscience Australia)

THE ECONOMIC VALUE OF AUSTRALIA'S MARINE INDUSTRY

The value of marine industries

AIMS has commissioned this analysis (The *AIMS Index of Marine Industry*) as part of the Institute's effort to bring together information about the economic value of the Australian marine industry sector and so demonstrate the economic importance of our marine territories to this nation. The Index provides all interested stakeholders with a snapshot of available data about activities related to Australia's marine environment.

It is the second update of estimates originally developed for AIMS in 2008 and provides the most recent available assessment of the value of the marine industries.

Industries associated with Australia's marine environment significantly benefit our economy and society. Up to now, however, this benefit has not been considered in terms of a single category – the 'marine industry' – which contributes to GDP, GSP, employment, and infrastructure at a national, State/Territory and regional level.

The industry groupings and definitions are the same as for the two previous editions of the Index. These were developed through discussion with representatives from a wide range of organisations involved with the marine industries in Australia. They should be seen as an initial framework for considering the scope and scale of activities which are considered to be part of the 'marine industry'. In addition to providing information on the scale of Australia's marine industry, this fact sheet is also intended to highlight where information gaps exist in relation to each sub-sector of the marine industry.

Approach to valuation

The main barrier to collecting the consistent and comparable data required to estimate the economic value of Australia's marine industry is that there is no single definition of which activities constitute this sector – that is, there is no agreed 'marine industry' grouping. For example, a number of industry sub-sectors included in the 1997 Marine Industry Development Strategy, which was developed by the Australian Marine Industries and Sciences Council, were excluded from the Marine Industry Action Agenda (developed later by the then Commonwealth Department of Industry, Science and Tourism).

This inconsistency has limited the identification of issues and trends affecting marine-related industries and activities. While a number of studies have estimated the value of marine-related activities at a local level (in particular work about the Great Barrier Reef Marine Park), this has not been done at a national level.

In its 2004 report to the National Oceans Office, *The Economic Contribution of Australia's Marine Industries*, the Allen Consulting Group used analysis of previous studies to provide a view of the economic impact of the marine industries. The goal of this Index is to build on their work to develop a framework which more explicitly accounts for activities within major marine industry groupings and also highlights the data gaps which currently exist.

The approach used in this analysis to data sources and sub-sector definitions has been based on a particularly limited construction of 'valuation'. In general, the focus is confined to quantifiable aspects of activities associated with the marine environment, and this necessarily means that economic transactions and industry groupings are emphasised. The approach is also limited to a focus on value flows rather than on value stocks. Alternative approaches, which would make it possible to think about valuing the social, environmental and other non-tangible dimensions of the marine environment, are not considered in this exercise. It is hoped that establishing a consistent definition for marine industries will enhance data collection about marine-related activities, and that this will contribute to valuation of these activities in the future.

The Index also includes historical data, to demonstrate the performance of the marine industry over time. Where possible, this data is updated to reflect any changes in the source data that may have occurred between issues.

With particular reference to this valuation, in 2008-09 the Australian Bureau of Statistics (ABS) updated its method for calculating the economic contribution of the tourism industry. The new method of calculation includes only the direct economic impacts of tourism, whereas the previous method also included indirect economic impacts. As such, indirect impacts are no longer included in the index. While this has lowered the overall value of the economic contribution figures, historical data has been corrected to reflect the new methodology.

Table 1 summarises the major and most recent available data about marine industry activities in Australia.

Table 1: Summary statistics for Australian marine industries, 2008-09. (n/a=not available)

Marine resource activities and industries	Industry Value Added (2008-09 $m)	Value of Production (2008-09 $m)	Industry employment (2008-09)	Other
Fishing				
Marine-based aquaculture[1]	n/a	$887.5m*		
Commercial fishing (wild capture fisheries)[2]	n/a	$1392.8m*		
Recreational fishing[3]	n/a	n/a (see note below)	n/a	$2024.6m (expenditure on related services & products)
Indigenous fishing[4]	n/a	n/a	In 2000-01, around 37,000 indigenous people participated	2000-01 harvest: 1.89m fish, 084m crustaceans, 1.15m molluscs, 0.93m others
Offshore oil & gas exploration and extraction				
Oil exploration[5]	n/a	$3318.4m		
Oil production[6,7]	n/a	$9793.4m		
LPG[8]	n/a	$1043.5m‡		
Natural gas[9]	n/a	$10078.7m‡		
Marine pipeline services	n/a	n/a	n/a	
Other resource extraction and use				
Desalination	n/a	n/a	n/a	Emerging industry
Carbon capture	n/a	n/a	n/a	Emerging industry
Bio-prospecting	n/a	n/a	n/a	Emerging industry
Seabed mining	n/a	n/a	n/a	Emerging industry
Tidal power	n/a	n/a	n/a	Emerging industry

*2007-08 data, inflated to 2008-09 values by 2.2%[10]
‡ Export revenue.

[1] ABARE, Fisheries Statistics 2008. Including aquaculture production of pearl oysters, edible oysters, marine shellfish, Southern Bluefin tuna, Atlantic salmon and ocean trout, other marine fish (not barramundi or silver perch), equivalent to 84% of total.
[2] ABARE, Fisheries Statistics 2008
[3] DAFF National Recreational and Indigenous Fishing Survey 2001. Note that there is not agreement on whether recreational fishing should be included as a 'marine resource' activity or a 'marine-related service'. It is believed that work is currently being undertaken to estimate the value of fish caught by recreational fishers. Expenditure on recreational fishing related services & product, is based on the 2001 survey, with values inflated to 2008-09 dollars.
[4] DAFF National Recreational and Indigenous Fishing Survey 2001.
[5] ABS, 8412.0 - Mineral and Petroleum Exploration, Australia, June 2010.
[6] APPEA, Production Statistics 2009, includes extraction from Bass, Gippsland, Bonaparte, Otway, Browse, Carnarvon basins.
[7] APPEA, Financial Survey Results: 2008-09.
[8] ABARE, Australian Commodity Statistics, June Quarter 2010.
[9] ABARE, Australian Commodity Statistics, June Quarter 2010.
[10] Inflated by a factor of CPI and GDP growth - ABS, 5206.0 Australian National Accounts: National Income, Expenditure & Product, Table 2: Expenditure on GDP, Chain volume measures & 6401.0 - CPI, Australia, Sep 2010

Table 2: Summary statistics for Australian marine industries (marine related service activities and industries), 2008-09. (n/a=not available)

Marine-related service activities and industries				
	Industry Value Added (2008-09 $m)	Value of Production (2008-09 $m)	Industry employment (2008-09)	Other
Boat/ ship building, repair & maintenance services and infrastructure				
Shipbuilding & repair (civil & defence)[11]	n/a	$1997.2m*	8220 employees (2006-07)	
Boatbuilding & repair (incl recreational vessels)[12]	$681.7m*	$1869.4m*	7300 employees (2006-07)	
Marinas and boating infrastructure	n/a	n/a	n/a	
Marine equipment retailing[13]	$273m	$2559.3m	4093 employees Wages & salaries $191.1m	
Marine tourism and recreational activities				
Cultural & recreational activity[14]	n/a	n/a	n/a	
Direct tourism Gross Domestic Product (domestic tourism)[15]	$9344.8m	n/a	138,081 tourism-related employees	40% of domestic tourism
Direct tourism Gross Domestic Product (international tourism)[16]	$1798.5m	n/a	26,790 tourism-related employees	19% of international tourism
Aquaria	n/a		n/a	
Water transport				
Water transport[17]	$1065m		10,000 ($572m wages & salaries)	$2839 (income)
Marine environment management				
Scientific research & development	n/a	n/a	n/a	
Establishment & operation of management programs	n/a	n/a	n/a	
Marine safety[18]	n/a	n/a	267 AMSA employees	2008-09 AMSA operating expenditure $145.3m

*2007-08 data, inflated to 2008-09 values by 2.2%

Based on the above information, it is possible to total the values for those industry sub-sectors where data is available, comparable, and reliable. This total value is not definitive, as there is likely to be some double counting of activity across categories, and for a number of categories there is no suitable data available (n/a). The aggregated data set out in Table 3 should be regarded as only an indicative value of marine industry activity in 2008-09.

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11 ABS, 81590DO001_200607200708 Experimental Estimates for the Manufacturing Industry, 2006-07 and 2007-08.
12 ABS, 81590DO001_200607200708 Experimental Estimates for the Manufacturing Industry, 2006-07 and 2007-08.
13 IBIS World Industry Report G5245 Marine Equipment Retailing in Australia 1/06/2010
14 Including boating/sailing, snorkelling, scuba diving, charter & game fishing by locals
15 ABS Tourism Satellite Account cat. no. 5249. The percentage allocation of international and domestic tourism related economic activity is based on the calculation in the 1989 Report of the Review committee on Marine Industries, Science and Technology in Australia, Oceans of Wealth? This report used unpublished statistics from the then Bureau of Tourism Research to assess the proportion of visitor nights spent by non-business travellers in places (other than capital cities) where the main attraction is the sea. This share of nights was then used as a proxy for the share of total tourism that the marine tourism industry represents. These figures (19 percent for international and 40 percent for domestic) have subsequently been re-used in the Review Committee on Marine Industries and Sciences Council 1997 Report and the Allen Consulting Group's 2004 report to The National Oceans Office, The Economic Contribution of Australia's Marine Industries.
16 Ibid.
17 ABS, 81550DO002_200809 Australian Industry, 2008-09.
18 AMSA, Annual Report 2008-09.

Table 3: Total of measurable value from marine-related activities in 2008-09.

Marine resource activities and industries	
Fishing	
Marine-based aquaculture	$887.5m*
Commercial fishing (wild capture fisheries)	$1392.8m*
Offshore oil & gas exploration and extraction	
Oil exploration	$3318.4m
Oil production	$9793.4m
LPG	$1043.5m‡
Natural gas	$10078.7m‡
Marine-related service activities and industries	
Boat/ship building, repair & maintenance services and infrastructure	
Shipbuilding & repair (civil and defence)	$1997.2m*
Boatbuilding & repair (incl recreational vessels)	$1869.4m*
Marine equipment retailing	$2559.3m
Marine tourism and recreational activities	
Direct tourism Gross Domestic Product (domestic tourism)	$9344.8m
Direct tourism Gross Domestic Product (international tourism)	$1798.5m
TOTAL	**$44083.7million**

*2007-08 data, inflated to 2008-09 values by 2.2%
‡ Export revenue

Table 3 suggests that, in 2008-09, the total measurable value of economic activity based in the marine environment in Australia was around $44 billion. By way of comparison, the gross value of all agricultural production in Australia in 2008-09 was $41.8 billion[19]. It should be noted that the above is not a complete figure – economic data is unavailable for many marine activities and there are also non-economic values which are not captured by this approach.

In order to form an idea of the sector's performance over time, we compare the levels of economic activity for marine industry sub-sectors, for which reliable data on economic activity is collected annually, in Table 1 and Table 2. From 2001-02 to 2008-09, the marine industry value has increased by over 80 per cent; from 2007-08 to 2008-09 the sector grew by 6 per cent:

- total off-shore oil and gas exploration grew by 12 per cent from 2007-08 to 2008-09. This was mainly due to an increase in natural gas output, which grew by around 70 per cent. The value of off-shore oil production declined by 19 per cent, due to declining output and lower prices
- total consumption of marine tourism goods and services declined by one per cent over this period. Although it should be noted that the Australian Bureau of Statistics has significantly revised the way that this figure is calculated. The figures in the chart and table below are comparable between years, but are not comparable to previous editions of the marine index.

Although some 2008-09 data was not yet available for some series the marine industry appears to have performed relatively well compared to the Australian economy as a whole, which, in the 12 months to June 2009 grew by only 1.3 per cent.[20]

[19] ABS, 7503.0,Value of Agricultural Commodities Produced, Australia, 2008-09
[20] ABS 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Jun 2010

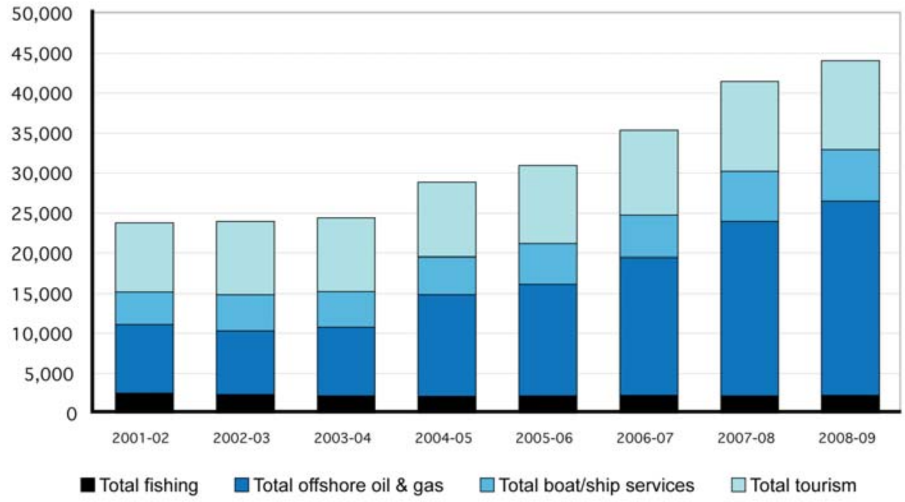

Figure 1: Comparison over time: measurable Industry Value of Production from selected marine-related activities.

Table 4 provides the detailed data for each industry sub-sector's value from 2001-02 to 2008-09. References for this table are the same as for Table 1 and Table 2. Footnotes relate to the comparability of data between years.

Table 4: Total of measurable Industry Value of Production from marine-related activities, 2001-02 to 2008-09.

Marine resource activities and industries								
Value of output ($m)	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
Fishing								
Marine-based aquaculture* ♦	731.2	708.9	724.6	634.1	742.3	805.7	868.4	887.5
Commercial fishing (wild capture fisheries) * ♦	1783.9	1655.5	1499.2	1490.8	1461.0	1445.9	1362.7	1392.8
TOTAL fishing	2515.1	2364.4	2223.8	2124.9	2203.4	2251.6	2231.0	2280.3
Offshore oil & gas exploration and extraction								
Oil exploration	719.6	922.4	791.2	829.8	937.8	1727.3	2541.1	3318.4
Oil production	4441.0	3472.7	4898.5	7866.6	7570.3	9229.8	12123.6	9793.4
LPG‡	856.3	981.1	717.3	861.3	1037.1	1038.0	1182.0	1043.5
Natural gas‡	2613.0	2607.0	2174.0	3199.0	4416.0	5220.0	5854.0	10078.7
TOTAL offshore oil & gas	8629.9	7983.2	8581.0	12756.7	13961.2	17215.1	21700.7	24234.0
Boat/ship building, repair & maintenance services and infrastructure[21]								
Shipbuilding & repair (civil & defence)* ♦	1796.4	1839.0	1696.0	1721.0	1797.0	1777.0	1954.0	1997.2
Boatbuilding & repair (incl recreational)* ♦	818.0	1037.0	1108.0	1251.0	1488.0	1688.0	1829.0	1869.4
Marine equipment retailing♦	1411.6	1632.8	1670.3	1709.6	1743.8	1804.8	2486.8	2559.3
TOTAL boat/ship services	4026.0	4508.8	4474.3	4681.6	5028.8	5269.8	6269.8	6425.9
Marine tourism and recreational activities								
Direct tourism GDP (domestic tourism)[22]	7336.8	7783.6	7725.6	7909.2	8326.0	9012.4	9553.6	9344.8
Direct tourism GDP (international tourism)[23]	1271.9	1292.2	1376.7	1419.5	1468.7	1611.6	1725.2	1798.5
TOTAL tourism	8608.7	9075.8	9102.3	9328.7	9794.7	10624.0	11278.8	11143.3
TOTAL	**23779.6**	**23932.1**	**24381.4**	**28891.8**	**30988.1**	**35360.5**	**41480.3**	**44083.7**

♦ Values for these series have been updated to reflect the most recently available data. Some values may not match quoted values from previous issues of the marine index. * 2007-08 data, inflated to 2008-09 values by 2.2%. ‡ Export revenue.

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[21] Note: Prior to 2006-07 these figures are sourced from ABS, Manufacturing Industry Australia, 2006-07 cat. no. 8221.0
[22] In 2008-09 the ABS changed the method for calculating the Tourism Satellite Account (cat.no. 5249). The new method of calculation includes only the direct economic impacts of tourism, whereas the previous method also included indirect economic impacts. The figures shown in this table are comparable between years, but are not comparable to previous editions. See http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Explanatory%20Notes12008-09?OpenDocument
[23] Ibid

Marine industry sub-sectors

The following paragraphs outline briefly some of the key issues associated with each of these categories. For further information, see discussion paper by AIMS, *Valuing the Australian marine industry: assessing the scope, scale and value of the Australian marine industry.*
(http://www.aims.gov.au/source/publications/pdf/MarineIndustryValuation_DiscPaper_170708.pdf)

Commercial fishing and aquaculture

Commercial fishing includes marine-based aquaculture and wild-catch from Commonwealth, State and Territory fisheries. This may mean that data is collected across jurisdictions. Marine-based aquaculture operations are those in coastal waters or in ponds requiring a sea water source – while there are some inland operations using salt water, these are not included in this definition.

Recreational fishing

Quantifying the economic value of recreational fishing is challenging because of the difficulties of collecting and comparing data about activities which occur in a relatively informal way and across a fragmented sector. In addition to any intrinsic environmental or heritage value, the fish caught by recreational fishers could be seen to represent an economic value; they are not, however, part of a market transaction, and determining how much they are worth therefore would requires alternative approaches to valuation.

Currently, the only data available about recreational fishing's economic impact is for expenditure on registration fees, ice, bait, fishing/boating/safety equipment, and travel costs. It also includes some activities which could be considered tourism or other services. Using this as the primary economic activity definition, recreational fishing would be considered a marine-related service industry rather than as a marine resource industry.

There have been several recent studies that have placed an economic value on recreational fishing; however these have been for one particular state or region. For example a recent report by *Ernst and Young* valued the economic impact of recreational fishing in Victoria at $824 million per annum.[24] While another report, by *Access Economics,* valued the expenditure on recreational fishing in the Great Barrier Reef at $267 million in 2006-07.[25]

Offshore oil and gas exploration, extraction and processing

The energy resources industries – including petroleum, LPG, and LNG – make up a significant portion of marine-based economic activity. In addition to the value arising from the domestic or export sale of resources extracted offshore, which is reliably reflected in production statistics, there is substantial activity generated through exploration and the development and ongoing maintenance of infrastructure (e.g. pipelines).

Other resource extraction

A number of other activities have been identified as emerging industries, with little current impact but the potential for an increasing contribution in the future.

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[24] Ernst and Young, *Economic Study of Recreational Fishing in Victoria - VRFish,* 20 November 2009
[25] Access Economics, *Measuring the economic and financial value of the Great Barrier Reef Marine Park, 2005-06, Report for the Great Barrier Reef Marine Park Authority*, 2007

Boat and ship building and maintenance equipment, services and infrastructure

The ANZSIC Manufacturing division includes marine equipment and supplies including activities such as the manufacture of winches, diving equipment, marine engines, acoustics equipment, sails and marine flooring. This is not currently separated out from general transport-related manufacturing. It is currently unclear whether data at the ANZSIC industry class level will be available for these activities in the future, as the ABS' Manufacturing Industry release may be reorganised.

Marine equipment retailing (ANZSIC 5245) is also in this category, although some activities such as retail of recreational and sporting equipment should be excluded, and counted among the recreational and leisure category.

In addition, this category includes activities in marinas and boating infrastructure. This sub-sector is highly diffuse, and there is no single source of consistent data. While a number of industry associations produce partial statistics, these are not considered reliable.

Marine tourism

Assessing the value of marine tourism is perhaps the most challenging part of valuing the marine industries. At the same time, the very substantial contribution of this sector to the economies of marine and coastal communities means that its importance should be recognised.

Identifying tourism activities differs from other industry categorisations, as these activities are defined by the classification of the consumer rather than, as is more typical, of the producer. The ABS develops its tourism satellite account based on internationally agreed standards for measuring tourism activity.[26] Internationally, approaches to defining the 'marine' components of tourism vary considerably. While there is consensus on approaches to the development of general tourism statistics, there does not yet appear to be a single framework for consistently identifying the portion of this attributable to marine tourism. While the tourism survey made it relatively straightforward to report tourism activity, the contributions in relation to marine tourism should be viewed as broad indicators of economic activity rather than precise estimates. The only existing methodology for this apportionment was developed in the 1989 report *Oceans of Wealth?* This report classified 19 percent of international and 40 percent of domestic tourism as marine tourism. It is recommended that further work, perhaps in the form of a survey, should be undertaken to determine an approximate measure for the proportion of Australian domestic tourism which is motivated by marine-related factors.

This grouping should also include marine-related cultural and recreational activity by local people who are not counted in typical 'tourism' datasets, including fishing; boating/sailing; snorkelling, scuba diving; charter and game fishing. There is currently no single dataset which identifies this activity. In addition, there is a degree of 'double counting' involved in relation to marine tourism and other marine sectors, given that nearly all of the broad (ANZSIC) industry groups are involved to a greater or lesser extent in tourism.

In 2008-09 the ABS changed the method for calculating the Tourism Satellite Account (cat.no. 5249). The new method of calculation includes only the direct economic impacts of tourism, whereas the previous method also included indirect economic impacts. The figures shown in this table are comparable between years, but are not comparable to previous editions of the index.

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[26] ABS, *Australian National Accounts: Tourism Satellite Account, 2008-09*, ABS cat.no. 5249.0

An example of where the economic impact of tourism in a specific region has been studied in depth was undertaken for the Great Barrier Reef Marine Park Authority (*Access Economics* 2007). This report found that tourism expenditure in the Great Barrier Reef Catchment Area totalled over $5.8 billion in 2006-07.

The report also found that tourism accounted for 94 percent of the following total economic impacts of the Great Barrier Reef:

- direct and indirect national contribution of 53,800 Full Time Equivalent jobs.
- Australia-wide contribution to value added of just over $5.4 billion.

It is likely that for an accurate assessment of the economic impact of marine tourism to be compiled, similar detailed regional studies of major marine-based tourism destinations would be required.

Water transport and Services to water transport

The challenge of capturing and appropriately attributing the value of all transport activity that, strictly speaking, occurs in Australia or Australian waters is considerable, given the frequently multinational nature of the transport operators. Therefore, in order to avoid double counting and to present a reliable base line level, this sector is restricted to include only the industry sub-sectors for which the ABS collects data.

Marine environment management

This grouping includes activities which provide management services for the marine environment, including scientific research and development and knowledge transfer, the establishment and operation of environmental management programs, and marine safety activities. In general, the major challenge to establishing the level of activity in this area is that it often occurs in a relatively diffuse way, spread across research institutes, universities, and the national, state, and even local levels of government.

SOURCES

Access Economics, *Measuring the economic and financial value of the Great Barrier Reef Marine Park, 2005-06, Report for the Great Barrier Reef Marine Park Authority*, 2007

Australian Bureau of Agricultural and Resource Economics (ABARE)

- *Commodity Statistics, June Quarter 2010*
- *Fisheries Statistics 2008*

Australian Bureau of Statistics (ABS)

- *Australian National Accounts: National Income, Expenditure and Product, Cat no. 5206.0*
- *Consumer Price Index, Australia, Cat no. 6401.0, Sep 2010*
- *Experimental Estimates for the Manufacturing Industry, Cat no. 81590DO001 2006-07 and 2007-08*
- *Mineral and Petroleum Exploration - Australia, Cat no. 8412.0, Jun 2010*
- *Tourism Satellite Account 2008-09, Cat no. 5249*
- *Value of Agricultural Commodities Produced, Australia, Cat no. 7503.0, 2008-09*

Australian Maritime Safety Authority (AMSA), *Annual Report*, 2008-09

Australian Petroleum Production & Exploration Association (APPEA),

- *Financial Survey Results: 2008-09*
- *Production Statistics 2009*

Department of Agriculture, Fisheries and Forestry (DAFF), *National Recreational and Indigenous Fishing Survey*, 2001

Ernst and Young, *Economic Study of Recreational Fishing in Victoria - VRFish,* 20 November 2009

IBISWorld Industry Report, *G5245 Marine Equipment Retailing in Australia*, 1/06/2010