

Biosecurity, certification and international aid and cooperation

- 5.1 This chapter deals with three major issues that were considered during the inquiry, that are relevant to both wild fisheries and aquaculture: biosecurity, certification and international aid and cooperation.
- 5.2 The biosecurity section deals with animal health, screening of seafood imports, the link between seafood and public health, and the translocation of species within Australia.
- 5.3 The certification section discusses third party certification of seafood products, generally directed at consumers. Certification generally provides consumers with information about the environmental sustainability of seafood products, as well as a guarantee of the origin and custody of seafood products along the supply chain, also known as traceability. Products are accordingly labelled to signify compliance for sustainability or traceability.
- 5.4 The last section on international cooperation and aid considers Australia's involvement with international fisheries organisations and opportunities to assist other countries with fisheries management and aquaculture production through aid programs.

Biosecurity

- 5.5 This section will consider biosecurity generally as it relates to marine animals, as well as government biosecurity policy and food standards.

- 5.6 The setting of biosecurity policy and rules occurs mostly at a national level, through DAFF. Within national borders, the States and Territories have their own systems for enforcement and outbreak detection.

Biosecurity and marine animals

- 5.7 Overall, Mr Ian Thompson (DAFF) said that biosecurity science is closely linked to Australia's comparative trade advantage:

Biosecurity science underpins Australia's freedom from many major aquatic animal diseases and invasive marine species that are found elsewhere in the world. That freedom gives us an advantage in trade, productivity and sustainability.¹

- 5.8 The Australian Government, Mr Thompson said, is well-placed to carry out certain biosecurity and border protection functions in support of developing the aquaculture industry.²

- 5.9 Dr Patrick Hone (FRDC) said:

By and large, I think Australia is well served by its biosecurity processes. We have very conservative rules. Tasmania, for example, has some extremely conservative biosecurity rules which serve that industry well.³

- 5.10 Australia is free from most aquatic animal diseases present elsewhere in the world.⁴ Were an outbreak to occur, this could cause substantial economic losses. DAFF submitted:

Losses in productivity from diseases of aquatic animals can be massive. Diseases such as ostreid herpes virus resulted in losses of 38 per cent in French Pacific oyster farming in recent years, and an outbreak of a salmon virus in Chile in 2007 caused unemployment and losses of over half of Chile's salmon production. Research into the development of species resistant to disease, disease treatments, and improved management practices is crucial to minimising the impact of disease on production, and flow-on effects such as unemployment.⁵

1 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.2.

2 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.3.

3 Dr Patrick Hone, *Committee Hansard*, 20 June 2012, p.8.

4 DAFF, Submission 24, p.8.

5 DAFF, Submission 24, pp.8-9.

- 5.11 In addition, Mr Ian Thompson (DAFF) stated that animal aquatic health is 'relatively poorly understood in comparison to land animals',⁶ a point reiterated in other evidence.
- 5.12 Current capacity to prevent, confine or eradicate aquatic diseases is limited, according to the CSIRO. Dr Nicholas Elliott (CSIRO) said that although there have been recent improvements:
- ...generally, in the fisheries and aquaculture area, we have a very low capability in that area. We have very few scientists working in that area. It is an area that has been identified as one where we need more because there is no doubt about it: we will get more diseases.⁷
- 5.13 Other evidence to the inquiry also expressed concern about Australia's capacity to deal with a major disease outbreak in aquatic animals. As noted by Murdoch University, the approach taken to biosecurity is generally reactive, and in relation to wild fish stocks is constrained by limited scientific knowledge:
- Our ability to minimise and appropriately manage disease risks in natural fish populations is constrained by a relatively poor understanding (compared with terrestrial wildlife) of the diversity, life cycles and transmission capabilities of infectious agents. This means that we have a very limited capacity to develop proactive preventative measures and we rely almost invariably on reactive responses after the outbreak has occurred.⁸
- 5.14 The same submission noted that aquaculture shares some of the problems of wild fisheries, relating to limited scientific knowledge. However, because aquaculture utilises artificial environments, a disease outbreak could be 'on a scale rarely seen in natural populations.'⁹ CSIRO submitted that, whilst some Australian disease outbreaks are linked to foreign outbreaks, some have been specific to Australia. It further submitted that disease outbreaks would continue to occur, 'possibly more frequently with changing climate'.¹⁰
- 5.15 Imported fish is a major source of potential disease risk. Associate Professor Tim Day (University of Melbourne) said:

6 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.1.

7 Dr Nicholas Elliott, *Committee Hansard*, 12 July 2012, p.16.

8 Murdoch University, Submission 8, p.3.

9 Murdoch University, Submission 8, p.4.

10 CSIRO, Submission 23, p.8.

Bringing species in from overseas is a recipe for bringing in new diseases. That can be done sometimes – it has been done successfully with salmon, obviously – but you have to be really careful. Salmon has been associated with some very severe diseases in aquaculture that have spread to wild stocks of salmon.¹¹

5.16 Dr Adam Main (Tasmanian Salmonid Growers Association) said:

Biosecurity and the import of other products is a threat from a supply point of view, but it is also a major threat from disease and pest point of view. If something was to come into Tasmania, like an ISA [infectious salmon anaemia] or any number of diseases that they have in the Northern Hemisphere or in Chile, it would be the end of our industry.¹²

5.17 According to evidence from Professor Euan Harvey, ballast water from ships is another potential source of marine pests.¹³

5.18 Managing aquatic animal health relies on suitable veterinary science and veterinarians with appropriate expertise. According to Murdoch University:

Globally, veterinarians with skills in aquatic animal health, to meet the disease challenges of capture fisheries and aquaculture, are in short supply. Very few veterinary courses in Australia, or overseas, provide even basic training in fish diseases. Exacerbating the shortage of fish health professionals is the very limited availability of advanced training courses in fish health within Australia. Although some courses are run by organisations such as the University of Tasmania, Murdoch University and CSIRO, these are typically limited in scope, often ad hoc and usually pitched at a relatively basic, entry-level audience.¹⁴

5.19 More generally, opportunities to develop new aquaculture species in Australia needs 'basic biological knowledge', Prof Day said, such as growth rates and immune systems.¹⁵

11 Assoc Prof Tim Day, *Committee Hansard*, 29 June 2012, p.9.

12 Dr Adam Main, *Committee Hansard*, 12 July 2012, p.61.

13 Prof Euan Harvey, *Committee Hansard*, 9 July 2012, p.24.

14 Murdoch University, Submission 8, pp.3-4.

15 Assoc Prof Tim Day, *Committee Hansard*, 29 June 2012, p.10.

Government biosecurity policy

5.20 Current national animal health policy is under review, following the lapsing of the most recent AquaPlan. DAFF's submission explains the origin of the AquaPlan policies:

AQUAPLAN 1998-2003, Australia's first national strategic plan for aquatic animal health, was developed after mass mortality events in pilchards in southern Australian waters in 1995 and 1998...These mortality events highlighted the need for a coordinated national approach to aquatic animal health management in Australia, and in 1997 the Australian Government committed \$2.7 million to develop a comprehensive aquatic animal health plan for Australia. A joint government/industry body was established in 1997 to develop AQUAPLAN 1998-2003.¹⁶

5.21 According to DAFF, a number of outcomes resulted, including:

- Establishing Australia's National List of Reportable Diseases of Aquatic Animals and mechanisms to update the list.
- Establishing emergency aquatic animal disease preparedness and response arrangements including AQUAVETPLAN and the Aquatic Consultative Committee for Aquatic Animal Diseases.
- Establishing the Aquatic Animal Health Subprogram (AHHS) of the Fisheries Research and Development Corporation (FRDC) to coordinate and lead aquatic animal health research and development ...[and]
- Raising awareness of aquatic animal health issues through a range of educational and awareness materials e.g. Aquatic Animal Diseases Significant to Australia: Identification Field Guide.¹⁷

5.22 A second AquaPlan was implemented from 2005 to 2010, which has now lapsed. According to evidence from DAFF, 'The feedback from industry and other stakeholders is supportive of a new plan and steps are being taken to progress a new plan for another five-year period.'¹⁸

5.23 AquaPlan 2005 to 2010 noted that for continued growth, the aquaculture industry requires access to the skills of aquatic health professionals.¹⁹ The Committee strongly agrees that education and training to ensure the

16 DAFF, Submission 24, pp.9-10.

17 DAFF, Submission 24, pp.9-10.

18 Dr Robert Biddle, *Committee Hansard*, 12 September 2012, p.2.

19 Primary Industries Ministerial Council, 'AquaPlan 2005-2010: Australia's National Plan for Aquatic Animal Health', July 2005, p.30.

relevant skills and services are available is critical to the future of the aquaculture industry.

- 5.24 Mr Reg Butler (DAFF) said with land-based diseases, the usual arrangement is for costs to be shared between government and industry, through a levy. Mr Butler pointed out, however, that even for some terrestrial species, there is not a cost sharing arrangement for disease response. Mr Ian Thompson (DAFF) added that the breadth of any levy applied across an industry may be complex, as a 'disease of oysters is not necessarily going to affect salmon'.²⁰

Food standards and consumers

- 5.25 Evidence during the inquiry highlighted the links between the health of aquatic animals, human health, consumer confidence and industry viability. Dr Nicholas Elliott (CSIRO) said:

Certainly I think with aquaculture, as with any primary production, you have got to look at the whole system because everything is dependent. So if you do not have a healthy environment you will not have a healthy animal, you will not have a healthy industry and you will not have healthy consumers.²¹

- 5.26 Dr Adam Main (TSGA) said:

One of the things that the salmon industry has done very well is to have a fish health surveillance program, and we can demonstrate freedom from diseases. From a social licence, sale point and biosecurity point of view we have the processes in place to demonstrate that freedom.²²

- 5.27 Food Standards Australia and New Zealand (FSANZ) has an important role in protecting human health through the development of food standards, which are then replicated by governments:

Standards developed by FSANZ do not have a direct legal effect. Rather, the *Food Regulation Agreement* provides that the States and Territories adopt or incorporate the Code into state or territory law.²³

20 Mr Reg Butler and Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.7.

21 Dr Nicholas Elliott, *Committee Hansard*, 12 July 2012, p.20.

22 Dr Adam Main, *Committee Hansard*, 12 July 2012, p.61.

23 FSANZ, Submission 46, p.1.

5.28 Under this arrangement, food standards are implemented by governments across Australia and New Zealand. A performance audit in 2010 by the Australian National Audit Office considered FSANZ's administration of its food standard functions. However, as the audit report noted:

The scope of this audit did not include the bodies primarily involved in food regulation policy or the bodies responsible for the implementation, compliance and enforcement of the standards.²⁴

5.29 A further performance audit of the collective implementation of the standards would not be possible under the *Auditor-General Act 1997*, as such an audit would need to include state and territory government agencies not subject to the above Act.

5.30 Evidence highlighted the important link between aquatic animal health and an industry with strong social licence.

Committee comment

5.31 The Committee is concerned that although the seafood industry and, in particular, aquaculture operations, are vulnerable to disease, there are questions over Australia's capacity to fully contain outbreaks. The Committee also notes that as some diseases affect certain species (and, therefore, are a risk to only a section of the industry) this could make charging an industry-wide levy for services challenging. It remains, however, an important priority deserving Australian Government action.

Recommendation 13

5.32 **The Committee recommends that the Australian Government update AquaPlan as soon as possible.**

24 Australian National Audit Office, *Audit Report No.15 2010-11*, p.17.

Recommendation 14

- 5.33 **The Committee recommends that the Department of Agriculture, Fisheries and Forestry develop a model for funding and enhancing aquatic disease control and aquatic veterinary training, possibly including an industry levy, as a matter of urgency.**
- 5.34 The Committee is concerned that the current arrangements by which food standards are implemented and enforced are not sufficiently reviewable. In particular, the inability of the Auditor-General – or the equivalent officers in Australian jurisdictions or New Zealand – to conduct a performance audit of the entire food standards system is a problem. In the absence of such an audit, it is difficult to establish whether the current food standards system as a whole is working properly.
- 5.35 Given the importance of maintaining disease-free status of Australian seafood, the Committee believes that the Legislative and Governance Forum on Food Regulation, which comprises the relevant Australian and New Zealand ministers, should address this gap in assessing food standards performance.

Recommendation 15

- 5.36 **The Committee recommends the Legislative and Governance Forum on Food Regulation formulate an independent mechanism for conducting a performance audit or review of the entire food standards system.**

Certification

- 5.37 Standards of fisheries management in Australia and internationally are coming under increasing scrutiny through certification schemes, which can provide consumers with information about where a seafood product has been sourced. As seafood companies compete to achieve higher rankings or ratings against criteria within certification schemes, this has the potential to influence the future direction of fisheries research as market forces demand higher standards of evidence-based science to demonstrate claims of sustainable fisheries management.
- 5.38 As examples, the Marine Stewardship Council (MSC) has developed global certification programs, for both traceability and sustainability:

- the ‘environmental standard for sustainable fishing’, which certifies the sustainability of fish stocks, environmental impacts and effective management systems;²⁵ and
- the ‘chain of custody standard for seafood traceability’, which certifies that a business has systems, records, proof that seafood has been sourced from an accredited supplier and an ability to ensure products are not substituted or mixed.²⁶

And the Australian Marine Conservation Society’s ‘sustainable seafood guide’ (not intended as a certification scheme) uses the tags ‘say no’, ‘think twice’ and ‘better choice’ against species commonly sold at fishmongers and at restaurants.²⁷ Ms Tooni Mahto (AMCS) said the Guide is ‘based on publicly available literature, from peer reviewed academic papers to government stock status reports and fisheries updates.’²⁸

5.39 Dr Patrick Hone (FRDC) explained the connection between markets and science:

There is public scrutiny, corporate social responsibility, social licence to operate – you might call it anything you want. There are a lot of things happening in the community where people want demonstrable evidence that you are doing things sustainably.²⁹

5.40 He continued:

Some countries like Canada are going through a trial of what is called the FAO based code of conduct for a sustainable fishing standard. ... our goal as scientists is to make sure that we harmonise, that we reduce the duplication and that all fisheries can afford it, if that is where we are going in the future, some demonstrable certification.³⁰

5.41 Both the aquaculture and fishing industries have recognised the rise of certification schemes. Dr Adam Main (Tasmanian Salmonid Growers Association) said:

25 MSC, ‘The MSC environmental standard for sustainable fishing’ at <http://www.msc.org/about-us/standards/standards/msc-environmental-standard>

26 MSC, ‘MSC chain of custody standard for seafood traceability’, at <http://www.msc.org/about-us/standards/standards/chain-of-custody>

27 AMCS, ‘About the Guide’, at http://www.sustainableseafood.org.au/Sustainable-Seafood-Guide-Australia.asp?active_page_id=696

28 Ms Tooni Mahto, *Committee Hansard*, 15 August 2012, p.8.

29 Dr Patrick Hone, *Committee Hansard*, 20 June 2012, p.3.

30 Dr Patrick Hone, *Committee Hansard*, 20 June 2012, p.3.

Certification and accreditation and standards have become vitally important for our industry to move forward. ... I do not know if the accreditation necessarily gives us social licence. It helps us demonstrate sustainability in one aspect and to an end user – possibly the purchasers of our seafood – but we do work on the social licence issue in quite a different way.³¹

5.42 Mr Neil Stump (Tasmanian Seafood Industry Council) said:

We do have to acknowledge that the community at large is placing increasing scrutiny over the need for sustainable fisheries, and there has been a lot of debate about the need for independent third party certification of sustainable fisheries and aquaculture practices.³²

5.43 The CSIRO's submission warned that reducing assessments and monitoring could put the industry at risk, because of the linkage between product marketability and management standards:

Reduction in such programs would place at risk the scientific basis of Australia's claim of good management and potentially threaten high-value markets that demand high environmental standards and demonstration of ecologically sustainable practices, such as through the Marine Stewardship Council certification.³³

5.44 Professor Michael Harte (WWF) said that certification for standards is important: 'it is about showing that you have the chain of custody and that you meet globally agreed standards for sustainable fisheries management,' he said, adding:

We see truly outstanding examples of companies and fisheries that are leading the way not just in Australia but globally, yet they are dragged down to the same level as the guy who takes his tinny out, throws his net over the side and turfs a couple of turtles overboard which the net brought up.³⁴

5.45 Mr Ian Thompson (DAFF) said:

We do not see there is a role for government to come in over the top and impose something but we encourage it as an advantage to Australian producers so that people know where their food is

31 Dr Adam Main, *Committee Hansard*, 12 July 2012, p.59.

32 Mr Neil Stump, *Committee Hansard*, 12 July 2012, p.54.

33 CSIRO, *Submission 23*, p.7.

34 Prof Michael Harte, *Committee Hansard*, 29 June 2012, p.28.

coming from. We encourage it in terms of truth in labelling so that people know what they have.³⁵

- 5.46 However, Professor Kearney said that third-party certification schemes were mostly about 'making money' for non-government organisations who sell their guidebooks. He said that certification is unnecessary because fisheries legislation already imposes the need for sustainability. If a problem arose, he said, 'the government should be held to account and made to fix it.' In any event, he said, 'our fisheries are extraordinarily sustainable, with very, very few exceptions.'³⁶
- 5.47 Professor Kearney emphasised, however, that certification for sustainability is distinct from certification for product traceability.³⁷
- 5.48 His submission observed that there are 'no essential qualifications or experience' required to conduct an assessment for third party guides or accreditation schemes, which he stated are then sold as independent scientific assessments by groups 'that have a self interest in misrepresenting the state of Australia's fisheries'.³⁸

Committee Comment

- 5.49 The Committee endorses the development of independent product certification. Although one witness argued that certification for sustainability is unnecessary, in general the industry, environmental groups and governments were supportive. Inherent in such certification are particular judgments about the relative importance of differing measures of sustainability: if consumers are sympathetic to the judgments of a particular certification scheme, they can make decisions about purchases accordingly.
- 5.50 At the same time, Australian governments have a legislated responsibility to ensure the sustainability of fisheries, whilst acknowledging that there are varying levels of confidence about the sustainability of individual fisheries and ecosystems. All governments compile data on fish stocks to inform decisions about fisheries management. This data should be placed in the public domain to support findings about fisheries and ecosystems sustainability. Consumers who share governmental judgments about sustainability can rely on government data to inform their purchases.

35 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.8.

36 Prof Bob Kearney, *Committee Hansard*, 29 June 2012, p.19.

37 Prof Bob Kearney, *Committee Hansard*, 29 June 2012, p.20.

38 Prof Bob Kearney, Submission 6, p.5.

- 5.51 The Committee believes that the Australian Government should collect and publish national data about fish stocks and ecosystems, as is expected in late 2012 (discussed in Chapters 1 and 2). However, the Committee does not recommend that the Australian Government should move to the next stage of developing a certification scheme. Such schemes are maturing and the Australian Government should confine its role to reporting national data.
- 5.52 Without mimicking available consumer guides, government-published information should be readily accessible, easy to understand, and should give clear advice about the sustainability of a fish stock or its ecosystem. This could take the form of fact sheets, with clear and systematic indications of the sustainability of particular species from particular ecosystems. Where there is doubt about a particular measure of sustainability, an emerging trend, or specific remedial action being taken by governments, this should be communicated and updated as necessary.
- 5.53 As well as the expected high-level and technical publication in a national report, data should also be published for specific species and ecosystems.
- 5.54 In addition to direct use by members of the public, third parties can use this information as a foundation for independent research.

International cooperation and aid

- 5.55 According to the Food and Agriculture Organisation, wild fisheries production has reached a plateau that will not increase until the world's fish stocks are more effectively managed.³⁹ While Australian fisheries and aquaculture production is well-managed by global standards, other regions of the world may face food security issues in the future due to unaddressed management issues. Australia contributes to efforts internationally to overcome these problems through participation in international agreements, giving direct assistance through its aid programs and exporting technology.
- 5.56 Australia has involvement with international fisheries agreements that are both regional and global in scope. Australia participates in regional fisheries management organisations (RFMOs), which aim to protect species on the high seas or migratory species, such as tuna. Mr Ian Thompson (DAFF) said:

39 *The State of World Fisheries and Aquaculture 2010* (FAO, Rome, 2010), p.42.

In terms of governance, the institutional structures and relationships for science and fisheries are quite different to land based science. ...fish do not take notice of our boundaries and they swim internationally and between jurisdictions. It means we have to work internationally on our science and we have to work with our state colleagues on domestic matters.⁴⁰

5.57 He continued:

Internationally, the issues are around shared stocks – migratory species such as tunas and swordfish – and we have responsibilities under international treaties to cooperate in science and information to inform conservation and management.⁴¹

5.58 Australia's RFMO membership includes the following:

- Commission for the Conservation of Southern Bluefin Tuna (CCSBT);
- Indian Ocean Tuna Commission (IOTC);
- South Pacific Regional Management Organisation (SPRMO); and
- Western and Central Pacific Fisheries (WCPFC).

5.59 Australian participation in global organisations and agreements includes:

- United Nations Fish Stocks Agreement;
- Food and Agriculture Organisation Committee on Fisheries;
- United Nations Law of the Sea (UNCLOS); and
- Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).

5.60 In addition, Australia has fisheries management agreements with its northern neighbours where maritime boundaries are shared, such as the Torres Strait Treaty between Australia and Papua New Guinea.

5.61 Australia can also make a significant contribution to improvements in food security for developing nations through its aid programs. According to Professor Carlos Duarte (UWA): 'The technologies for aquaculture are highly transferable.'⁴² He further suggested that 'we believe that there is

40 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.1.

41 Mr Ian Thompson, *Committee Hansard*, 30 May 2012, p.1.

42 Professor Carlos Duarte, UWA, *Committee Hansard*, 12 September 2012, p.9.

enough potential to satisfy the food requirements of the nine billion people if we develop a more intelligent approach to aquaculture.’⁴³

- 5.62 The Pacific Islands manage a delicate food security situation and supply chains due to relative isolation and economies of scale. Some Pacific Island nations, reliant on fish as a source of food, are predicted to incur a supply shortfall by 2030.⁴⁴
- 5.63 The Australian Government is a member of the Network of Aquaculture Centres (NACA) in the Asia-Pacific, an organisation that:
- promotes rural development through sustainable aquaculture.
 - NACA seeks to improve rural income, increase food production and foreign exchange earnings and to diversify farm production.
 - The ultimate beneficiaries of NACA activities are farmers and rural communities.⁴⁵
- 5.64 In this regard, Australia is well-placed to offer assistance to countries in the Pacific region, using the expertise of its scientists. The Australian Centre for International Agriculture Research (ACIAR) has an extensive fisheries program, in particular sustainable aquaculture production and fisheries and aquatic resource management.⁴⁶
- 5.65 Additionally, export of intellectual property may present an avenue to make a financial return on investment in aquaculture and fisheries science. Dr Mike Hall (AIMS) said:
- ...a lot of our focus may not be so much on [aquaculture] production but on the technology associated with production.
 - Potentially, via intellectual property or even our patents, we can protect that. So, if the production is not done in this country for various reasons such as labour costs and that production shifts overseas, at least Australia is in the game of aquaculture by developing technologies that are essential for that production, whether in Australia or overseas.⁴⁷
- 5.66 The recent National Food Plan green paper noted that Australia’s advanced expertise in agricultural and fisheries technology ‘will be sought
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43 Professor Carlos Duarte, UWA, *Committee Hansard*, 12 September 2012, p.9.

44 World Fish Centre, ‘Aquaculture, Fisheries, Poverty and Food Security’, working paper 2011-65, December 2011, p.32.

45 Network of Aquaculture Centres in the Asia-Pacific, <http://www.enaca.org/modules/about/index.php>

46 Australian Centre for International Agriculture Research, ‘ACIAR Fisheries Program Project Profiles 2011-2012’, August 2011.

47 Dr Mike Hall, *Committee Hansard*, 31 July 2012, p.2.

after by developing countries wanting to improve their own agricultural capacity and fisheries management.⁴⁸

Committee comment

- 5.67 Australia is a good global citizen in the area of international fisheries cooperation. With active participation in a number of intergovernmental organisations and contributions to United Nations programs, the Australian Government is assisting with the task of improving the sustainability of fish stocks in the region and around the world.
- 5.68 In addition to cooperation through intergovernmental organisations, Australia can contribute to fisheries management and aquaculture production in other countries through its aid program. The Committee notes that these programs are already underway, though recommends an expansion of aid in this area, especially for Pacific Island nations.
- 5.69 Australian fisheries management – and the science underpinning it – is held in high esteem around the world. Sharing Australian expertise in this area can contribute to global food security, particularly in the South Pacific. Through AusAID and the Australian Centre for International Agricultural Research, Australia can assist other countries improve their own fisheries management practices. The Committee believes that this should be pursued as a priority.

Recommendation 16

- 5.70 **The Committee recommends that, while protecting Australian intellectual property, the Australian Government make available technology and expertise through aid programs dedicated to fisheries management and aquaculture production.**

Recommendation 17

- 5.71 **From within the existing aid budget, the Committee recommends that the Australian Government increase aid to Pacific Island countries for projects and programs relating to fisheries management and aquaculture production.**

48 Australian Government, 'National Food Plan Green Paper', July 2012, p.34

