

## Chapter 4

### Food security—agriculture and fisheries

4.1 In Pacific island countries most people live and work in rural areas and depend heavily on produce from the land and sea for their livelihood.<sup>1</sup> Thus, agriculture, fisheries and forestry form the basis of the economies of the Pacific island countries and are likely to continue to do so for the foreseeable future.<sup>2</sup> Allowing for variation between the countries, approximately 80 per cent of employment is generated by these three key activities.<sup>3</sup> The committee starts its analysis of how Pacific island countries are meeting their economic challenges with a general discussion on food security and sustainable development. In this chapter, the committee focuses on agriculture and fisheries as key economic sectors.

#### Food security

4.2 Although subsistence production dominates the economic life of people in Pacific island countries, they have become 'increasingly reliant on imported staples such as rice, flour and noodles'.<sup>4</sup> The rise of food prices during 2008 heightened concerns about food security in the region. In this regard, a paper prepared by the Secretariat of the Pacific Community (SPC) observed that generally Pacific island countries and territories had managed to achieve food availability except during major natural disasters. It noted, however, that the situation was changing, with several

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- 1 Treasury, *Committee Hansard*, 20 November 2008, p. 10; Dr Patricia Ranald, *Committee Hansard*, 25 March 2009, p. 7; DEEWR, *Submission 64*, pp. 6–7; Dr Simon Hearn, ACIAR, *Committee Hansard*, 20 November 2008, p. 38. See also Foundation for Development Cooperation, *Submission 53*, p. 5 and Asian Development Bank, *Skilling the Pacific: Technical and Vocational Education and Training*, Executive Summary, 2008, p. 8.
  - 2 See for example, Australian Centre for Agricultural Research, ACIAR, *Country Profiles 2008–09, Pacific Islands*, p. 10. See also ACIAR, which stated in its submission that many small holders live in isolated rural communities dependent on household food production and intermittent crop, fish and small livestock sales. *Submission 67*, p. 8.
  - 3 See for example, Dr Simon Hearn, Australian Centre for International Agricultural Research, *Committee Hansard*, 20 November 2008, p. 38; and DAFF, *Submission 42*, pp. 4–5. DAFF informed the committee that agriculture, fisheries and forestry based industries support up to 85 per cent of the Pacific region's population and provide an important contribution to Pacific island economic activity. See also Professor Clive Moore, *Committee Hansard*, 26 March 2009, p. 9.
  - 4 See for example Secretariat of the Pacific Community, Statement by the Secretariat of the Pacific Community on behalf of Pacific Island Countries and Territories at the UN-sponsored World Food Summit 08, Rome, 4 June 2008, [http://www.spc.int/corp/index.php?option=com\\_content&task=view&id=236&Itemid=1](http://www.spc.int/corp/index.php?option=com_content&task=view&id=236&Itemid=1) (accessed 16 January 2009). See also the 2008 Solomon Islands people's survey, which found that the consumption of imported foods appeared to be quite widespread amongst the participants and their families though they did remark on its high cost. ANU Enterprise, *People's survey 2008*, Final report, p. 13.

island countries becoming net importers of food. The Secretariat attributed this trend in part 'to the stagnation of agricultural productivity and coastal fisheries production as a result of declining investment of these sectors'.<sup>5</sup> In its assessment, agricultural productivity and coastal fisheries production were not keeping pace with rapid population growth.<sup>6</sup> Based on a study of nine Pacific island countries, the Secretariat found:

...if the value of food imports grows in line with expected population growth, these countries will collectively be spending an additional US\$120 million on food imports by 2030. Financing such expenditure will, for example, require a 79% increase in agriculture, forestry and fisheries export earnings in Vanuatu, and a 10% increase in remittances in Samoa.<sup>7</sup>

4.3 At the 2008 UN-sponsored World Food Summit, the Secretariat highlighted the need for Pacific island governments and donors 'to reverse the declining investment in the agricultural sector and recognise the role it plays in safeguarding food security in the face of volatile global food prices'. It noted, however, that the current crisis also presents the region with an opportunity:

Many Pacific Islands are blessed with a rich diversity of traditional staples such as taro, cassava, sweet potatoes, breadfruit and yams which are not as important in global trade as some of the imported commodities on which we've come to rely. Increased production of these local foods could help to limit the impact of rising prices.<sup>8</sup>

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- 5 Secretariat of the Pacific Community, Paper presented by the Secretariat, 'Agenda item 3.1: Food security in the Pacific', Thirty-eighth meeting of the committee of representatives of governments and administrations, Noumea, New Caledonia, 13–16 October 2008, paragraph 4.
  - 6 Secretariat of the Pacific Community, Paper presented by the Secretariat, 'Agenda item 3.1: Food security in the Pacific', Thirty-eighth meeting of the committee of representatives of governments and administrations, Noumea, New Caledonia, 13–16 October 2008; Regional Policy Agenda. At the 2008 UN sponsored World Food Summit, the Secretariat noted the growing dependence of Pacific Islanders on imported staples which was 'especially true for atolls where limited land, water and poor soils make it difficult to grow much beyond breadfruit, taro and coconuts'. Secretariat of the Pacific Community, Statement by the Secretariat of the Pacific Community at the World Food Summit 08, Rome.
  - 7 Secretariat of the Pacific Community, Paper presented by the Secretariat, 'Agenda item 3.1: Food security in the Pacific', Thirty-eighth meeting of the committee of representatives of governments and administrations, Noumea, New Caledonia, 13–16 October 2008, paragraph 37. The countries were Cook Islands, Fiji, Federated States of Micronesia, Kiribati, Palau, Samoa, Tonga, Tuvalu and Vanuatu. In 2007, Solomon Islands and Vanuatu had population growth rates of 2.4 per cent, PNG grew at 2.1 per cent and Kiribati at 1.6 per cent. The population growth rates for Fiji (0.6), Tonga (0.5) and Tuvalu (0.4) were below the Pacific and the World average which stood at 1.2 per cent for 2007.
  - 8 Statement by the Secretariat of the Pacific Community on Behalf of Pacific Island Countries and territories at the UN-sponsored World Food Summit, [http://www.spc.int/corp/index.php?option=com\\_content&task=view&id=236&Itemid=1](http://www.spc.int/corp/index.php?option=com_content&task=view&id=236&Itemid=1) (accessed 16 January 2009).

4.4 According to AusAID's 2009 Pacific economic survey, however, agricultural productivity in Pacific island countries has 'stagnated for the last 45 years'.<sup>9</sup> It should be noted that, at the moment, while poor nutrition and malnutrition are problems in some Pacific island countries, starvation is not. For example, AusAID informed the committee that there are some very poor communities in PNG where child malnutrition occurs but that protein malnutrition was not such a concern for Pacific islands communities with ready access to fish.<sup>10</sup> The Prime Minister of PNG also noted that no-one is starving in the traditional villages of PNG where people help each other. He noted though that there might be one or two in Port Moresby—'kids who come to look for opportunities for education and health, when they miss out, then they of course roam the streets'.<sup>11</sup>

4.5 Some island countries are responding to the threat of food insecurity in the region 'by calling on people to grow more local foods'.<sup>12</sup> The Government of Tonga has stated that, given its natural resources, its main challenge is to be 'more self-reliant and self-sufficient'. It is looking to boost agricultural production and 'has prioritized the development of the agricultural sector to maintain adequate rural living standards, provide food security, generate export earnings, and reduce dependence on food imports'.<sup>13</sup> President Manny Mori of the Federated States of Micronesia was quoted at the 2008 World Food Summit:

...for too long our children have been fed on rice as staple food because of the convenience of preparation and storage. We have neglected our responsibility and even contributed to their lower health standards by failing to teach them to appreciate the natural food and bounty of our islands.<sup>14</sup>

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- 9 Commonwealth of Australia, *09 Pacific Economic Survey: engaging with the world*, AusAID, Canberra, September 2009, p. 97.
- 10 *Committee Hansard*, 12 March 2009, pp. 32–33.
- 11 Prime Minister of Australia, Interview, Joint Press Conference with the Right Honourable Grand Chief Sir Michael Somare, Prime Minister of Papua New Guinea, Parliament House, 28 April 2009, [http://www.pm.gov.au/media/interview/2009/interview\\_0936.cfm](http://www.pm.gov.au/media/interview/2009/interview_0936.cfm) or <http://www.pm.gov.au/node/5207> (accessed 5 May 2009).
- 12 Statement by the Secretariat of the Pacific Community on Behalf of Pacific Island Countries and territories at the UN-sponsored World Food Summit, [http://www.spc.int/corp/index.php?option=com\\_content&task=view&id=236&Itemid=1](http://www.spc.int/corp/index.php?option=com_content&task=view&id=236&Itemid=1) (accessed 16 January 2009).
- 13 Asian Development Bank, *Tonga: Outer Islands Agriculture Development Project*, Operations Evaluation Department, July 2006, Executive Summary and p. 3. Prime Minister's Statement at the UN Assembly, Friday, 26 September 2008, <http://www.pmo.gov.to/media-mainmenu-82/speeches-mainmenu-84/english-mainmenu-95/275.html?task=view> (accessed 20 February 2009).
- 14 Statement by the Secretariat of the Pacific Community on Behalf of Pacific Island Countries and territories at the UN-sponsored World Food Summit, [http://www.spc.int/corp/index.php?option=com\\_content&task=view&id=236&Itemid=1](http://www.spc.int/corp/index.php?option=com_content&task=view&id=236&Itemid=1) (accessed 16 January 2009).

4.6 He noted that Fiji had 'just launched a "Plant Five a Day" campaign in an effort to encourage more people to plant in their gardens'.<sup>15</sup> Other Pacific island countries are also introducing various incentives to encourage greater local production. Nauru has included agriculture in its school curriculum to promote farming and food production skills among the younger people, and Vanuatu has an agricultural school, partly funded with donor assistance, aimed to attract school leavers to farming.

### **Sustainable development**

4.7 At a time when Pacific Islanders are being encouraged to increase their agricultural productivity, concerns are mounting about sustainable development. This issue cuts across all sectors involving land and water use.

4.8 For many years, a considerable number of studies, conferences and workshops have pointed to a range of environmental, demographic, socio-cultural, and land practices that are putting additional strain on the already existing vulnerability of these island states and the rich biodiversity of the region.<sup>16</sup> They have noted that the fragile terrestrial, coastal and marine environments upon which most island people rely were increasingly under threat from unsustainable harvesting and land use practices, increasing populations, resource exploitation, pollution and climate change.<sup>17</sup>

4.9 CSIRO informed the committee that over exploitation of natural resources, such as fishing, groundwater and forestry, was undermining the economic viability of many Pacific island countries to operate as nation states.<sup>18</sup> It stated that in PNG:

At the local level, environmental degradation and biodiversity loss have the largest impact on the poorest members of the community who may rely on these natural assets for subsistence harvesting (food, firewood), storm protection, etc.<sup>19</sup>

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15 Statement by the Secretariat of the Pacific Community on Behalf of Pacific Island Countries and territories at the UN-sponsored World Food Summit, [http://www.spc.int/corp/index.php?option=com\\_content&task=view&id=236&Itemid=1](http://www.spc.int/corp/index.php?option=com_content&task=view&id=236&Itemid=1) (accessed 16 January 2009).

16 See for example, UN Global Conference on the Sustainable Development of Small Island Developing States, 'Report of the Global Conference on the Sustainable Development of Small Island Developing States', Bridgetown, Barbados, 25 April–6 May 1994, A/CONF.167/9, October 1994, <http://www.un.org/documents/ga/conf167/aconf167-9.htm> (accessed 20 October 2008). UN Development System, Fiji and Samoa, *United Nations Development Assistance Framework for the Pacific Subregion 2008–2012*, May 2007, p. 6.

17 UN Development System, Fiji and Samoa, *UN Development Assistance Framework for the Pacific Subregion, 2008–12*, May 2007, pp. 6 and 17. *Pacific 2020* noted, 'The environments on which so many Pacific island people depend are arguably being degraded. They are certainly being managed in ways that cannot be sustained, creating significant negative impacts for present and future generations'. AusAID, *Pacific 2020, Background Paper: Forestry*, January 2006, p. 4, [http://www.ausaid.gov.au/publications/pdf/background\\_forestry.pdf](http://www.ausaid.gov.au/publications/pdf/background_forestry.pdf) (accessed 2 December 2008).

18 *Submission 50*, p. 5.

19 *Submission 50*, p. 6.

4.10 These risks to a long-term sustainable and productive agricultural sector require Pacific island countries to rethink and adapt to the challenges that have emerged over recent years. Thus, research and development is critical to finding solutions to the problems created by rising food prices, growing populations, land use practices and changes to climate. For example, at the 2008 meeting of the Heads of Agriculture and Forestry Services, Fiji reported that strengthening breadfruit production depended on 'increased access and availability to more varieties to enable year-round supply'. Also at this meeting, Kiribati noted the importance of adaptation measures, including the need for climate resilient planting materials and livestock breeds; Niue highlighted the need to 'lift conservation and management efforts'; and Tuvalu noted the promotion of crop varieties more tolerant to salt and drought.<sup>20</sup> Several Pacific island countries mentioned the need for improved education facilities at both school and tertiary level. For example, Niue stated that there was an urgent need for training under the Paravet programme'.<sup>21</sup> Fiji argued that agricultural sciences 'should be incorporated into school curricula at the primary and secondary level'.<sup>22</sup> Some countries also suggested that technical assistance was required to help the community 'accept and adjust to the need for more local food production'.<sup>23</sup>

### ***Research and development for increased productivity and food security***

4.11 A number of countries at this 2008 meeting noted that efforts should be made to develop better ways of getting information to farmers. PNG stated that 'improved extension, education and awareness programmes to promote local food production were essential'.<sup>24</sup> Fiji's Minister for Primary Industry and Sugar told graduates from the Fiji College of Agriculture that:

In order to ensure that the benefits of these technologies are felt across the farming communities, efforts must be made to increase the familiarity with

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20 *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008.

21 *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008, p. 26. This project is a joint effort of the SPC, Agricultural Development in the American Pacific (ADAP) and the University of the South Pacific (USP). A paravet is not a qualified veterinarian. He or she looks after sick animals and where appropriate either treats the animal or refers the animal to a veterinarian, provides advice to members of the community on animal production and health issues, visits farmers and advises members of the community on how to improve animal productivity, and carries out surveillance for the introduction of exotic diseases. Secretariat of the Pacific Community website: <http://www.spc.int/rahs/Projects/paravet1E.htm#definition>.

22 *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008, p. 26.

23 *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008, p. 26.

24 *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008, p. 27.



these technologies that even the smallest farms can use them. Agricultural training has potential to improve traditional agriculture methods as well.<sup>25</sup>

4.12 The Australian Centre for International Agricultural Research (ACIAR) also recognised that research is urgently needed into more effective ways to achieve a broader adoption of the results of research and development (R&D). Dr Simon Hearn, ACIAR, argued that the challenge was to get better technology to smallholders where there is 'tremendous latent potential to increase yields'. He was of the view, however, that extension services in some of the countries 'have become rather the second cousins of the system'.<sup>26</sup> For example, few of the participants in the 2008 Solomon Islands people's survey reported visits by agricultural extension officers.<sup>27</sup> Cook Islands, Niue and Kiribati have publicly acknowledged the value of the community-based approach used by the SPC's Development of Sustainable Agriculture in the Pacific.<sup>28</sup> Kiribati noted that one of its strengths was 'the direct involvement of farmers, women and youth'.<sup>29</sup>

### ***Committee view***

4.13 Clearly, while research and education in sustainable development is a high priority for Pacific island countries, this alone is not sufficient to boost the agricultural production in the region. The knowledge and know-how gained in the classroom or laboratory must be conveyed to, and adopted by, farmers on the ground. The linkages between research, education and extension are vital to ensuring that Pacific island countries build the capacity in individuals and communities to better care for their land, manage sustainable production and increase their productivity. Any research project designed to assist Pacific island countries improve their agricultural productivity and sustainable development should contain a clear path from research and development to producers working smaller farms.

### **Fisheries**

4.14 Evidence presented to the committee also highlighted the central importance of the fishing industry to food security in the Pacific and of threats to its sustainability. Because of their location and small land mass, Pacific island countries are effectively

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25 Fiji Government Online, J Cokanasiga, Minister for Primary Industry and Sugar, 'Remarks at the Fiji College of Agriculture', 10 December 2008, [http://www.fiji.gov.fj/publish/printer\\_13707.shtml](http://www.fiji.gov.fj/publish/printer_13707.shtml) (accessed 16 January 2009).

26 *Committee Hansard*, 20 November 2008, pp. 41 and 44.

27 ANU Enterprise, *People's survey 2008*, Final report, p. 13.

28 The Development of Sustainable Agriculture in the Pacific project is an important part of the Secretariat of the Pacific Community Agriculture and Forestry Programme. The project has a strong focus on extension and is intended to improve the promotion and dissemination of information to the farming community. It uses a participatory approach with farmers and rural communities to identify and adopt technologies. See website, for example, [http://www.spc.int/dsap/about\\_dsap.htm](http://www.spc.int/dsap/about_dsap.htm).

29 *Second Regional Conference of Ministers of Agriculture and Forestry*, 8–9 September 2008, Apia, Samoa, p. 11 and *Report of the 3<sup>rd</sup> Regional Meeting of Heads of Agriculture and Forestry Services (HOAFS)*, 3–5 September 2008, p. 24.

coastal entities. With their population and economic activities concentrated in the coastal zone, Pacific island countries depend largely on coastal and marine resources for sustainable development. A study by the Secretariat of the Pacific Community found that fish accounts for 70–90 per cent of total animal protein intake in Pacific island countries. Most of this fish comes from subsistence fishing. It noted further that the use of fish for food security is critical because the 'total population of the Pacific will increase by almost 50% by 2030'. The study concluded:

The challenge for national planners is to ensure that growing populations continue to have physical, social and economic access to the fish they need. In rural areas, access to fish needs to be made available in ways that enable households to catch or produce it for themselves. In urban centres, it needs to be supplied at affordable prices.<sup>30</sup>

4.15 For many years, however, international bodies have recognised the difficulties facing Pacific island countries in managing their fisheries sector and in achieving ecologically and economically sustainable use of coastal and marine resources.

### **Coastal fisheries**

4.16 Pacific island countries gain significant economic and nutritional benefit from subsistence coastal fishery resources. According to estimates, over 80 per cent of all coastal catch is consumed in the subsistence sector, particularly in rural areas, of some Pacific small island developing states.<sup>31</sup> But the health of these marine habitats is at risk from pollution, over-exploitation, conflicts between competing resource users and the effects of natural hazards and extreme weather events.<sup>32</sup> Recently, the UN's Commission on Sustainable Development noted that exports of marine products from coastal areas had increased and that:

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- 30 Secretariat of the Pacific Community, Paper prepared by the Secretariat in collaboration with FFA, 'Agenda item 4: The future of Pacific fisheries—planning & managing for economic growth, food security and sustainable livelihoods, Fifth Conference of the Pacific Community, Apia, Samoa, 12–13 November 2007, Executive summary, paragraphs 5 and 6.
- 31 UN Economic and Social Council Commission on Sustainable Development, 'Integrated review of the thematic cluster of agriculture, rural development, land, drought, desertification and Africa in Small Island Developing States', Report of the Secretary-General, E/CN.17/2008/9, 5–16 May 2008, paragraphs 37–38.
- 32 UN General Assembly, 'Report of the Global Conference on Sustainable Development of Small Island Developing States', Bridgetown, Barbados, 25 April–6 May 1994, A/CONF.167/9, October 1994, p. 17, <http://www.un.org/documents/ga/conf167/aconf167-9.htm> (accessed 20 October 2008).

The sustainable management of fisheries has thus become increasingly urgent, as the demand for both subsistence and commercial fishery products have raised the incidence of overfishing.<sup>33</sup>

4.17 DFAT raised similar concerns about the heavy dependence on coastal fishing resources for subsistence food and the diminishing stocks in many areas due to human population growth and unsustainable fishing practices. It also highlighted the increasing importance of the sustainable management of traditional fisheries resources 'given the global rise in food prices and increased cost of imported non-traditional foods'.<sup>34</sup> A 2007 ACIAR project recognised that 'managing the pressures on coastal reef fisheries was a challenge for local communities, who have relatively few tools and traditions to reconcile the limited resources with the increasing demand for them'.<sup>35</sup> Mr Barney Smith, ACIAR, said that despite the importance of these fisheries, 'the governance services in terms of understanding and managing fisheries on coastal inshore resources is relatively weak'.<sup>36</sup>

4.18 With regard to aquaculture, ACIAR was of the view that the Pacific island countries with their large, clean and sheltered areas of seawater and high biodiversity were 'ideally suited to a range of aquaculture activities'. It stated, however, that aquaculture in the Pacific had been 'dogged by low production levels and few success stories'.<sup>37</sup>

4.19 Although critical to the informal economy of many Pacific island countries, coastal fishing did not figure prominently in evidence presented to the committee. Most of the evidence centred on large-scale commercial fishing. The committee is of the view, however, that the attention given to ocean fishing should not overshadow the importance of the smaller commercial and subsistence fishing activities in the coastal areas of the region. Pacific island countries would benefit from assistance in both research and development and in raising awareness of how better to manage these resources.

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33 UN Economic and Social Council Commission on Sustainable Development, 'Integrated review of the thematic cluster of agriculture, rural development, land, drought, desertification and Africa in Small Island Developing States', Report of the Secretary-General, E/CN.17/2008/9, 5–16 May 2008, paragraphs 37–38. An OECD Policy Brief noted that 'valuable fish stocks in many coastal areas of the developing world are severely threatened by over-fishing and weak regulatory environments', OECD, 'Fisheries: Improving Policy Coherence for Development', *Policy Brief*, September 2008, p. 2.

34 *Submission 68*, p. 10.

35 ACIAR Project FIS/2007/116, 'Improving resilience and adaptive capacity of fisheries-dependent communities in Solomon Islands', <http://www.aciar.gov.au/project/FIS/2007/116> (accessed 30 April 2009).

36 *Committee Hansard*, 20 November 2008, p. 47.

37 ACIAR, 'Sustainable aquaculture development in Pacific Islands region and northern Australia' Project ID: FIS/2001/075 <http://www.aciar.gov.au/project/FIS/2001/075> (accessed 1 July 2009).



## Commercial fisheries

4.20 Ocean fishing is also an important food source for Pacific island countries. But the opportunities to meet the food security needs for many Pacific island countries depends on the long-term sustainable management of ocean fisheries resources in the region.<sup>38</sup> DAFF underscored this point. It stated that 'Support for the sustainable development of fisheries resources and preventing the overfishing of stocks in the western and central Pacific Ocean is crucial for the viability of Pacific island countries as sovereign states'.<sup>39</sup> A number of international organisations, however, have expressed concern about the failure to protect marine stocks to sustainable levels and the poor management of fisheries which threaten the viability of the industry.<sup>40</sup> ACIAR noted that 'ineffective policy implementation is seen as a significant impediment to development and progress'.<sup>41</sup>

### *Over exploitation*

4.21 DFAT informed the committee of evidence indicating that 'serious overfishing of the two major commercial tuna stocks (bigeye and yellowfin) may place these at a serious risk of collapse within 3–5 years if corrective action is not taken'.<sup>42</sup> Mr John Kalish, DAFF, emphasised the seriousness of this assessment:

Essentially, if the rate of overfishing continues at this current rate then the stock will move to a state where it may actually move into a declining phase.<sup>43</sup>

Such assessments are based on a solid body of research.<sup>44</sup>

4.22 The migratory nature of the fish stocks, the immense area covered by fishing activity, the number of countries engaged in the industry and the growing demand for fish from the region complicate the management of Pacific fish stocks.

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38 *Submission 42*, p. 11.

39 *Submission 42*, p. 3.

40 See for example, OECD, 'Fisheries: Improving Policy Coherence for development', *Policy Brief*, September 2008, p. 2.

41 Australian Centre for International Agricultural Research Country Profiles 2008–09, Pacific Islands, p. 10.

42 *Submission 68*, p. 10.

43 *Committee Hansard*, 20 November 2008, p. 57.

44 For example, a recent study published by the Australian National Centre for Ocean Resources Security stated clearly that overfishing and overcapacity threaten the sustainability of some of the region's key fish stocks. It noted that such practices pose a direct threat to the economic viability and food security of the Pacific island countries that are heavily dependent on fisheries resources for both revenue and food security, Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian Centre for Ocean Resources and Security, University of Wollongong, April 2008, p. 23.

### *Distant Water Fishing Nations*

4.23 Despite mounting concerns about the over exploitation of some species of fish in the region, the number of distant water fishing nations (DWFNs) operating in the Southwest Pacific is increasing. Mr Kalish reported that in recent years, new players had entered the industry and members of the European Community had increased their activity in the area. He explained that in the past their predominant fishing grounds had been the Atlantic and the Indian oceans, but that their attention was shifting to the Pacific.<sup>45</sup> According to Mr Kalish, record catches were reached in 2008—2.4 million tonnes—which was about 200,000 tonnes over the catch in the previous year.<sup>46</sup> Furthermore, the demand for fish from the region was rising. Mr Kalish noted that 'given the increased competition for fish, particularly high valued fish such as tunas used for sashimi, there is a shortage of supply'. He explained:

Countries like China, which are becoming more affluent, have greater demand for this product, and as a result the north Asian countries, in particular, are not interested in seeing their access to this product reduced...<sup>47</sup>

4.24 Mr Kalish also informed the committee that there are countries interested in tuna for canning, with the region providing about 60 per cent of the world's supply.

4.25 The activities of DWFNs in the Exclusive Economic Zones (EEZ) of the Pacific island countries are regulated by the relevant sovereign state and the Forum Fisheries Agency (FFA).<sup>48</sup> They must be licensed to fish within those waters and be registered with the FFA. DWFNs must also observe certain monitoring, control and surveillance measures that allow the FFA and the member countries to keep track of their activities, for example, through vessel monitoring systems.

4.26 Mr Kalish drew attention to the tension between the aspirations of the Pacific island countries, which need to be protected, and those of countries seeking access to fish in the region.<sup>49</sup> He informed the committee that there had been 'very heated debate and intercessional workshops that have sought to identify compromise positions that would be amenable to the different sectors that fish in the western South Pacific'.<sup>50</sup>

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45 *Committee Hansard*, 20 November 2008, p. 65.

46 *Committee Hansard*, 20 November 2008, p. 58.

47 *Committee Hansard*, 20 November 2008, p. 59.

48 Under the law of the sea, an EEZ is the area of sea over which a state exercises its sovereign rights covering the exploration, exploitation, conservation and management of its natural resources. Generally this zone extends to a distance of 200 nautical miles (370 km) out from its coast. Articles 55, 56 and 57, UN Convention on the Law of the Sea.

49 *Committee Hansard*, 20 November 2008, p. 59.

50 *Committee Hansard*, 20 November 2008, p. 59.

### *Illegal activities*

4.27 Pacific island countries are scattered over a large geographic area and encompass a vast maritime EEZ. Thus, the fishing industry in particular presents enormous difficulties for Pacific island countries struggling to monitor unauthorised activities in their broad expanses of water. An OECD Policy Brief noted that in spite of efforts to combat illegal, unreported and unregulated fishing, such activities remain widespread.<sup>51</sup> In its submission, DFAT contended that the landed value of fish taken from the region is vastly under-reported, with poaching estimated at 40 per cent.<sup>52</sup> Mr Kalish said:

The exact magnitude of the problem would be difficult to quantify. One of the problems that we have is determining whether a vessel is reporting accurately as to whether its fishing activity is taking place in an exclusive economic zone or on the high seas...to a large extent many of the problems are due to inadequate management of the current catch levels.<sup>53</sup>

4.28 For example, he explained that there were instances where vessels that have not applied for access, 'have gone into exclusive economic zones and vessels that have access have extended their stay'.<sup>54</sup> The requirement to monitor and police their EEZ is a key economic challenge for Pacific island countries. Brigadier Andrew Nikolić, Department of Defence, informed the committee that Pacific island countries:

...lack the capacity to effectively protect their EEZ resources from illegal fishing and to monitor their maritime boundaries against threats like smuggling without substantial help from outside.<sup>55</sup>

4.29 DFAT also referred to the difficulties Pacific island countries face in policing and prosecuting the illegal and under-reported fishing occurring in their EEZs.<sup>56</sup>

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51 OECD, 'Fisheries: Improving Policy Coherence for development', *Policy Brief*, September 2008, p. 2.

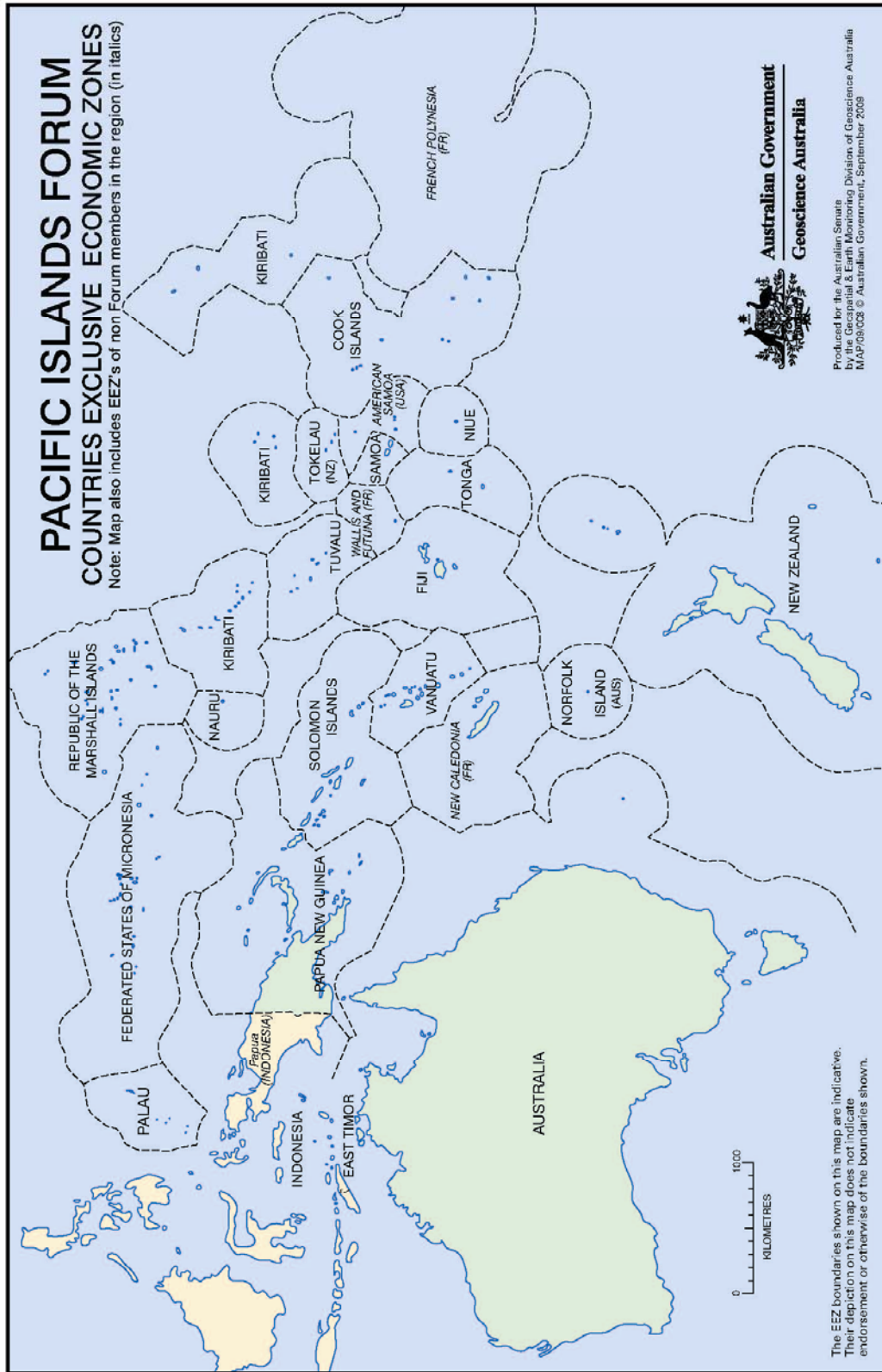
52 *Submission 68*, pp. 10 and 15.

53 *Committee Hansard*, 20 November 2008, p. 66.

54 *Committee Hansard*, 20 November 2008, p. 67.

55 *Committee Hansard*, 21 November 2008, p. 86.

56 *Submission 68*, p. 10.



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### ***Conservation and management***

4.30 A major concern for countries in the region is that fishing activities carried out in breach of agreed arrangements may undermine the sustainability of the industry in the Pacific. Because of the migratory nature of fish and the large areas they traverse, Pacific island countries recognise the value in collaborating to protect their interests effectively. Two major regional organisations figure prominently in overseeing fishing activities in the region. The FFA and the Western and Central Pacific Fisheries Commission (WCPFC) work cooperatively to ensure sustainable fishing in the region. FFA members make up 17 (including Australia and New Zealand) of the 32 participating members and territories in the WCPFC.

4.31 Mr Smith, ACIAR, explained that the WCPFC is a body that can 'begin to address some of the more difficult issues, such as overfishing, by keeping a cap on the total catch and, more importantly, keeping the effort at a level that the stocks can sustain'.<sup>57</sup> Mr Kalish explained that although there had been some breaches of the cap, the problem was with the cap itself. The agreed limit was established when the fishing capacity and the fishing effort was already too high, so the cap is near the maximum take that has occurred for bigeye tuna.<sup>58</sup> Thus, although the limits imposed on the size of the catch are generally observed, some fish stocks continue to decline. According to Mr Kalish:

As a body made up of member states it is contingent upon the member states [of WCPFC] to agree to take action to conserve the stocks. Based on the recommendation of the scientific community, over the past three years they have recommended a 25 per cent reduction in fishing mortality for bigeye. This year the scientific committee met in August [2008] and recommended a 30 per cent reduction in fishing mortality.<sup>59</sup>

4.32 Until recently, Pacific island countries as members of the FFA were critical of the lack of progress in achieving concrete results in the conservation and management of fish stocks in the region. In his opening statement to the 2007 December meeting of the WCPFC, the then chair of the Forum Fisheries Committee told the gathering that FFA members felt that 'some members of the Commission have not engaged in the Commission's work to date in the most constructive manner'.<sup>60</sup> In their view, this behaviour had resulted in delay in advancing towards an effective and robust management and conservation framework, particularly with regard to bigeye and yellowfin tuna.<sup>61</sup> Overall, however, the Pacific Islands Forum Secretariat was of the

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57 *Committee Hansard*, 20 November 2008, pp. 46–47.

58 *Committee Hansard*, 20 November 2008, p. 61.

59 *Committee Hansard*, 20 November 2008, p. 59.

60 Western and Central Pacific Fisheries Commission, Fourth Regular Session, 2–7 December 2007, Opening Statement by FCC Chair to the Fourth Session of the WCPFC, WCPFC4–2007/DP28, 5 December 2007.

61 Western and Central Pacific Fisheries Commission, Fourth Regular Session, 2–7 December 2007, Opening Statement by FCC Chair to the Fourth Session of the WCPFC, WCPFC4–2007/DP28, 5 December 2007.



view that much progress had been made in the last year or two on improving the management of fish stocks in the region though a lot of work remained to be done.<sup>62</sup>

4.33 At its 2008 December meeting, the WCPFC made notable gains with the adoption of a number of proposals supported by the Pacific islands. They included actions to reduce overfishing of bigeye and yellowfin tuna.<sup>63</sup> Tonga also enlisted the support of the WCPFC to have a Taiwanese vessel deemed as an illegal, unreported and unregulated vessel. This move was abandoned after Taiwan agreed to pay the fine imposed by Tonga for the breach.<sup>64</sup>

4.34 Despite these positive moves to exert tighter control over the exploitation of fish in the region, the then Chair of the Forum Fisheries Committee recognised that while 'absolute commitment' to management and conservation was required this must be matched by a commitment to implement them.<sup>65</sup> A study by the Australian National Centre for Ocean Resources and Security observed similarly that:

...regardless of whether the WCPFC is the world's most advanced regional fisheries management organisation (RFMO), it all comes to nought if members do not 'own' its outcomes and are not engaged in its deliberations.<sup>66</sup>

4.35 Thus, to protect their fishing interests, it is important for Pacific island countries to have a decisive voice in the WCPFC and to secure the support of all its members.

### ***Capacity to engage in regional organisations and implement policy***

4.36 Clearly, Pacific island countries value their membership of the WCPFC but unlike the developed countries, they have difficulty marshalling the resources

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62 Edward Vrkic, *Committee Hansard*, 19 June 2009, p. 8.

63 For example: a cut of 10 per cent in longline fishing in 2009; closure of the high seas and EEZ to fishing Aggregating Devices for 2 months in 2009 and 3 months in 2010 (July–September); and agreement to close 2 high seas pockets from January 2010. Pacific Islands Forum Fisheries Agency, 'Tuna Commission meeting makes significant progress says Pacific Islands', posted 12 December 2008, <http://www.ffa.int/node/106> (accessed 22 December 2008).

64 Pacific Islands Forum Fisheries Agency, 'Tuna Commission meeting makes significant progress says Pacific Islands', 12 December 20-08, <http://www.ffa.int/node/106> (accessed 22 December 2008). According to a report in the *Dominion Post*, in January 2008, an RNZAF Orion operating out of Tonga caught a Taiwanese tuna boat fishing illegally in Tongan waters. The report indicated that Taiwan had suspended the boat's licence for three months and called the captain back for training but that Tonga wanted \$2.5 million for what it said was a violation of its sovereign rights, [http://www.samoobserver.ws/index.php?option=com\\_content&view=article&id=1563:tonga-and-taiwans-diplomatic-fight&catid=1:latest-news&Itemid=50](http://www.samoobserver.ws/index.php?option=com_content&view=article&id=1563:tonga-and-taiwans-diplomatic-fight&catid=1:latest-news&Itemid=50) (accessed 22 December 2008).

65 Western and Central Pacific Fisheries Commission, Opening Statement by the Chair of the Forum Fisheries Committee, WCPFC5-2008/DP17, 8 December 2008.

66 See also Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian National Centre for Ocean Resources and Security, University of Wollongong, April 2008, pp. 26–27.

necessary to be active participants. Addressing a meeting of the WCPFC, a representative from Tokelau referred to the major commitment of resources needed, among other things, 'to work through the documents and get to meetings'.<sup>67</sup> The demands on the resources of Pacific island countries, however, go beyond attendance at international meetings. The committee has already referred to the lack of capacity in Pacific island countries to protect their EEZs from illegal or unreported fishing activities.

4.37 A recent study published by the Australian National Centre for Ocean Resources and Security noted that 'while companies and nationals from DWFN reap the lion's share of the benefits', Pacific island governments bear the overwhelming share of the management costs.<sup>68</sup> It stated clearly:

Increasing demands upon national governments to implement necessary management and conservation measures is placing further pressure on Pacific island governments and regional institutions. This combination of events is exposing governance and institutional gaps at both the national and regional level that undermine the ability of Pacific island countries to meet these challenges and sustainably manage and develop their fisheries resources.<sup>69</sup>

4.38 According to the study, Pacific island countries will require a strong institutional and governance capability to implement many critical elements including fisheries conservation and management, vessel registration, licensing and permits, gathering data, reporting and analysis, monitoring and enforcement, administration, stakeholder participation and consultation, regional cooperation, negotiation and advocacy.<sup>70</sup> Indeed, Pacific island countries have an enormous task in effectively managing their fish stocks and ensuring that the industry remains sustainable. Even PNG was prompted to note in 2007 that:

Our in-zone has now become so congested with management measures to such as extent that we are now feeling the burden of management and conservation measures which affects our legitimate development aspirations and our sovereignty.<sup>71</sup>

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67 Western and Central Pacific Fisheries Commission, Fifth Regular Session, 8–12 December 2008, Tokelau, opening statement, WCPFC5–2008/DP18, 8 December 2008.

68 Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian Centre for Ocean Resources & Security, University of Wollongong, April 2008, p. 25.

69 Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian Centre for Ocean Resources & Security, University of Wollongong, April 2008, p. 23.

70 See also Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian Centre for Ocean Resources & Security, University of Wollongong, April 2008, pp. 26–27 and 28–34.

71 Western and Central Pacific Fisheries Commission, Papua New Guinea, *Opening Statement*, Fourth Regular Session, 3–7 December 2007, WCPFC4–2007/DP23, Guam, 3 December 2007.

4.39 Considering the size of Pacific island countries and the vast areas of ocean over which they have jurisdiction, the task of managing, monitoring and enforcing compliance is daunting.

#### ***Committee view***

4.40 The fisheries sector is critical to the economic life of Pacific island countries and makes a vital contribution to nutrition and food security in the region.<sup>72</sup> The committee notes the number of major problems Pacific island countries face in ensuring the sustainable development of their fishery industry—the risk of over-exploitation and the growing demand on their limited physical and human resources to effectively oversee, manage and administer all aspects of the industry. An island country on its own cannot hope to address the problem of over exploitation, sustainable development, and illegal activity in the fisheries sector. They need to obtain commitments and practical support from DWFNs for the conservation of fish stocks and the sustainable development of the fisheries industry. To do so, they require proficient advocates and negotiators to represent their individual and collective interests and the wherewithal to be effective members of regional organisations such as the WCPFC.

#### **Conclusion**

4.41 Sound management of the agricultural and fisheries sectors is central to the economic development of Pacific island countries. Furthermore, it is critical that the use of these resources does not compromise the social, environmental or economic well-being of future generations. Clearly, Pacific island countries would benefit from assistance to become more self-reliant and self-sufficient in their food supply by donor countries, such as Australia:

- helping to raise awareness of the importance of sustainable development;
- continuing research and development in the area of food security and resource management so that sustainable development of the land and sea is based on the best scientific evidence and analysis available;
- ensuring that the results of research are promoted as widely as possible throughout the region through improved extension services;
- building capacity in resource management;
- providing funds and practical support to help Pacific island countries monitor activities within their borders including their EEZ, enforce agreements and prevent illegal exploitation of their resources; and

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72 DFAT stated that outside PNG's mineral wealth, fisheries 'was the most valuable resource' *Submission 68*, p. 9. See also, UN Economic and Social Council Commission on Sustainable Development, 'Integrated review of the thematic cluster of agriculture, rural development, land, drought, desertification and Africa in Small Island Developing States', Report of the Secretary-General, E/CN.17/2008/9, 5–16 May 2008, paragraphs 37–38 and Quentin Hanich, Feleti Teo and Martin Tsamenyi, *Closing the Gaps: Building Capacity in Pacific Fisheries Governance and Institutions*, Australian Centre for Ocean Resources & Security, University of Wollongong, April 2008, pp. 26–27.

- strengthening their capacity and that of the key regional organisations to undertake activities in coastal and marine areas consistent with their commitments to resource management and conservation.

4.42 In the following chapter, the committee turns its attention to sustainable development in the forestry and mining industries before considering environmental concerns arising from natural disasters and climate change.

