

Chapter 10

Conservation—meeting the challenges

10.1 As noted in the previous chapter, as parties to the Treaty, Australia and PNG have responsibilities for preserving the environment in the Torres Strait so that Indigenous inhabitants can continue to carry out their traditional activities. International agreements also place obligations on both countries to use their best endeavours to protect vulnerable species such as turtle and dugong in the Torres Strait. In this chapter, the committee examines the measures that Australia is taking to fulfil its obligations under the Treaty and international conventions. It considers measures that are being taken in the Torres Strait to: prevent over-exploitation of scarce resources; involve local communities in the sustainable management of their environment; and police and enforce agreements designed to protect the region's ecosystem. It also examines the nature and value of current research on conservation in the region and its practical application to the challenges facing local communities. The committee's focus is on the marine life now under threat of serious depletion.

Sustainable management—Australia's role

10.2 The Australian Government exercises a number of controls to help manage the conservation of species under threat, such as regulations governing seasonal closures, permit and quota systems, and licensing arrangements. For example, with regard to turtle and dugong, the committee noted in Chapter 8 that the Treaty restricts the hunting of these animals to traditional means. The *Guidelines for Traditional Visitors* make clear that dugong and turtle are among the species covered under CITES and that traditional fishers:

...cannot take or trade dugong or turtle specimens and their products for eg: dugong or turtle meat, dugong bone or tusk or turtle shell across the border. Not from PNG into Australia or from Australia into PNG. If you do bring dugong or turtle products (including carvings) into the Torres Strait from PNG these items can be seized by Australian authorities.¹

10.3 Commercial fishing for bêche-de-mer in the Torres Strait Protected Zone (TSPZ) is effectively closed, with a total allowable catch set at zero. For traditional inhabitants the catch is limited to only three per person or six per boat.²

10.4 The committee has noted, however, that unreported, unregulated or illegal fishing is a problem in the Torres Strait, which underscores the need for effective management plans. Moreover, to achieve the objectives of these plans, high levels of compliance is needed.

1 *Guidelines for Traditional Visitors*, DFAT, answer to question on notice, 18 December 2009.

2 *Guidelines for Traditional Visitors*, DFAT, answer to question on notice, 18 December 2009.

Community engagement

10.5 Understandably, because traditional fishing has such strong economic, cultural and social significance for Torres Strait Islanders, they will not accept unquestioningly restrictions on the exercise of these activities. Thus, their active involvement in decisions about, and support for, the conservation of threatened marine life in the Torres Strait is critical to the sustainable management of these species. The 2007 Torres Strait Turtle and Dugong Fisheries assessment stated:

The key issue is the level of stakeholder support. So long as the communities view any more restrictive measures as being thrust upon them by government, the measures are unlikely to succeed. The point at which the communities view the government's actions as helping them to implement measures to protect turtles and dugong for their future generations, that is the point at which the management response will have the greatest prospect of success.³

10.6 Along similar lines, the 2008 study of dugongs in Northern Australia found that the priorities of Indigenous peoples and government agencies are 'almost certainly different'.⁴ It noted the importance of Australia developing 'culturally acceptable and scientifically robust mechanisms to manage indigenous hunting' and cited the 'National Partnership Approach'.⁵ This policy is intended to assist Indigenous communities become actively involved in the sustainable management of turtles and dugongs in their locations.⁶ Professor Glen Hurry, AFMA, agreed with the view that the best way to manage turtle and dugong was 'through the communities' and referred to building a better understanding among the local people of the need for sustainable management.⁷ Indeed, the *Environment Protection and Biodiversity Conservation Act*

3 *Torres Strait Turtle and Dugong Fisheries Assessment Report*, January 2007, p. xv.

4 Helene Marsh et al, *Condition, status and trends and projected futures of the dugong in the Northern Great Barrier Reef and Torres Strait*, Commonwealth Environment Research Facilities, Marine and Tropical Sciences Research Facility, James Cook University, April 2008, p. 14.

5 Helene Marsh et al, *Condition, status and trends and projected futures of the dugong in the Northern Great Barrier Reef and Torres Strait*, Commonwealth Environment Research Facilities, Marine and Tropical Sciences Research Facility, James Cook University, April 2008, pp. vii and 14.

6 Natural Resource Management Ministerial Council, *Sustainable Harvest of Marine Turtles and Dugongs in Australia—A National Partnership Approach*, 2005.

7 *Committee Hansard*, 17 December 2009, p. 54.

1999 (EPBC) seeks to achieve the engagement of Indigenous people in conservation through a partnership that involves the community in management planning.⁸

Community management plans in the Torres Strait

10.7 For a number of years in the Torres Strait, the government has invested in developing community management plans that seek to achieve the ecological sustainability of turtle and dugong with fairness and cultural sensitivity. For example, a Natural Heritage Trust project provided funding to the TSRA to develop community-based management plans for the marine turtle and dugong fisheries.⁹ Since 2006, the TSRA's Land and Sea Management Unit (LSMU) has coordinated the development of management plans by 15 Torres Strait communities. This work has included:

- employing local turtle and dugong project officers to facilitate monitoring activities and planning processes in their community;
- subsequently employing community rangers to support the implementation of community recommendations for turtle and dugong management; and
- developing proposed action plans to manage the fishery in a sustainable way.

10.8 The project has received more than \$2 million in funding from the Australian Government for the development of the community plans and another \$13.8 million to employ 24 community rangers across eight communities until 2013. The Queensland Government has also contributed to this investment and, according to the TSRA, negotiations were to be initiated with the Australian Government for the funding of ranger programs in the remaining seven communities.¹⁰

Progress

10.9 According to the TSRA, the turtle and dugong management plans were to be completed for all 15 Torres Strait communities by the end of 2009.¹¹ In November 2009, the Torres Strait Fisheries Management Advisory Committee noted that dugong and turtle project officers were in place at Saibai, Dauan, Kubin and Masig, with recruitment under way for Warraber, Poruma and Ugar. It also recorded that eight

8 Its objectives include: promoting a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; recognising the role of Indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and promoting the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge. See section 3 of the Act.

9 These plans were circulated to key government and research entities for feedback on plan content, for endorsement and for support for the implementation of recommended management tools. *DEWHA, Submission 24*, p. [4].

10 *Submission 18*, p. 17. See also *Submission 24*, pp. [4–5].

11 *Submission 18*, p. 16.

communities had developed dugong and turtle management plans. The completed plans contained tools for the seasonal closure of hunting of these animals which included the collection of turtle eggs in the management areas designated by each community.¹² According to DEWHA:

In many ways these plans are very innovative (and regionally relevant) because they include aspects of traditional and customary law in the management of the take of turtle and dugong together with spatial and seasonal closures to work towards an ecologically sustainable harvest. These management plans also acknowledge and articulate how to accommodate the take of turtle and dugong by hunters from Papua New Guinea as allowed under the Treaty.¹³

10.10 Mr Oxley, DEWHA, noted that the PZJA agencies considered these plans to 'be appropriate mechanisms for the management of the Torres Strait turtle and dugong fishery and that those arrangements are capable of ensuring that the harvest of those species is sustainable in the Torres Strait'.¹⁴

Community rangers

10.11 In November 2009, the Torres Strait Fisheries Management Advisory Committee also noted that community rangers were employed at Mabuiag and Badu, with the recruitment of rangers in process for Boigu, Iama and Erub, and recruitment to take place for Mer and Moa in early 2010.¹⁵ DEWHA explained that each of the ranger groups would undertake activities including:

...marine turtle and dugong monitoring and management, ghost net collection, fire management, invasive species management and other natural resource management activities, as identified in the land and sea management strategy for the Torres Strait. All rangers will also be undertaking accredited (Certificate II/III) training in fisheries management and/or conservation and land management.¹⁶

10.12 The TSIRC employs the project officers and community rangers and provides them, in partnership with the TSRA, with administrative and operational support. The Prescribed Body Corporate (PBC) on each island gives guidance to rangers on their work priorities and on any cultural protocols that they need to follow.

12 Torres Strait Fisheries Management Advisory Committee, Meeting no 11, 11–12 November 2009, Agenda items no. 3.1 and 3.2.

13 *Submission 24*, p. [5].

14 *Committee Hansard*, 17 December 2009, p. 68.

15 Torres Strait Fisheries Management Advisory Committee, Meeting no 11, 11–12 November 2009, Agenda item no. 3.1. According to TSRA, community rangers were due to be employed in eight communities as of early 2010. *Submission 18*, p. 16.

16 *Submission 24*, p. [2].

10.13 In this regard, the TSRA noted in its submission that currently all community ranger positions were funded from grants. It suggested that the transfer of these positions to permanent jobs would 'provide the Torres Strait with the environmental protection that is required of Australia under international treaties and the opportunity to build conservation management and fisheries development partnerships with PNG'.¹⁷

Committee view

10.14 The committee recognises the need to achieve a sustainable harvest to ensure the conservation and protection of turtle and dugong in the Torres Strait. This objective can only be achieved through strong local community support that is based on close involvement in the monitoring and management of vulnerable species in the region. The committee fully endorses the development of culturally acceptable and scientifically robust mechanisms whereby Indigenous communities in the Torres Strait are actively engaged in the sustainable management of vulnerable marine species in their localities, for example, through community rangers. Adequate and a secure source of funding, however, is needed for the effective implementation of the community management plans.

Recommendation 12

10.15 The committee recommends that the Australian Government ensure that funding for the development of community management plans and the employment of community rangers is secure and commensurate with the maintenance and progress of these plans.

10.16 In recognition of the important role of community rangers in both conservation and biosecurity, the committee recommends that the Australian Government in consultation with TSIRC and TSRA, give consideration to making these positions permanent.

Sustainable management—PNG's role

10.17 The Torres Strait forms one eco-region with, for example, PNG and Australia sharing the traditional harvesting of dugong, turtle and bêche-de-mer. Recognising that the Torres Strait is a joint jurisdiction area, Mr See Kee, TSRA, noted that while Australia is making progress on its side of the border, for example, regarding the dugong and turtle program, and taking steps to deal with the climate change challenge, such endeavours are not being matched on the other side.¹⁸ In this regard, the committee has drawn attention to the concerns of some Torres Strait Island leaders that PNG nationals engage in the illegal harvest of marine species or fail to observe conservation measures adopted by Torres Strait Island communities. It noted

17 *Submission 18*, p. 18.

18 *Committee Hansard*, 24 March 2010, p. 7.

comments to the effect that on the PNG side, there are no laws to address these issues or resources sufficiently adequate to police them (see paragraphs 9.30–9.34).

10.18 The Treaty requires Australia and PNG, as appropriate and necessary, to exchange information concerning species of indigenous fauna and flora under threat of extinction and, at the request of either country, to consult in order to:

- (a) harmonise their policies with respect to the measures to protect species of indigenous fauna and flora that are or may become threatened with extinction; and
- (b) ensure the effective and coordinated implementation of those measures.

10.19 According to DEWHA, Australia and PNG are making efforts 'to co-operate and develop complementary mechanisms for the sustainable management of turtle and dugong fisheries, including continuing to develop culturally informed, community-based management plans'.¹⁹ For example, recent attempts have been made at the community level through local gatherings and the Traditional Inhabitants Meetings (TIMs) to obtain PNG's cooperation to support the implementation of community-based management plans. Two meetings held in February and April 2009 have allowed traditional inhabitants to explore issues to do with hunting closures and permit arrangements proposed in the Torres Strait community plans.

10.20 At the first meeting, Torres Strait Turtle and Dugong Project Officers proposed to join Treaty Liaison visits to coastal villages in PNG to identify opportunities for shared cross-border management approaches for turtle and dugong. Further, Treaty villagers requested a visit to Mabuag Island to see how the rangers there work on their community Turtle and Dugong Management Plan. Arrangements for this visit were made in consultation with the Mabuag community.

10.21 Dr Hitchcock, who is concerned about the depletion of local resources particularly turtle and dugong, explained that he participated in a joint awareness visit:

We moved along the treaty villages talking about this very issue, trying to gather data on people's use of turtle and dugong in particular in the strait. I think this is one of the key challenges for the future.²⁰

10.22 The TSRA informed the committee that the main objectives reached at the second meeting were for nominated PNG Treaty villages to be involved in the turtle and dugong management planning process on Saibai and Boigu; and for other PNG Treaty villages to become more aware of the planning process.²¹ In TSRA's assessment:

19 *Submission 24*, p. [4].

20 *Committee Hansard*, 18 June 2010, p. 48.

21 *Submission 18*, p. 17.

A key outcome of both meetings was that Torres Strait Islander engagement with PNG Treaty villages was recognised as a priority in any future cross-border arrangements for the management of turtle and dugong in the Torres Strait.²²

10.23 The TSRA found that 'community level contacts are starting to be established through the collaborative turtle and dugong conservation projects developed by DEWHA and the TSRA'.²³ In its view, it was 'not unreasonable to expect that at some time in the future, bilateral arrangements are made between PNG and Torres Strait communities for the conservation management of the biodiversity values of the Torres Strait'.²⁴

10.24 With regard to compliance, the TSRA reported that communities in the Torres Strait were currently focused on establishing arrangements to enforce the management plans. Its Land and Sea Management Unit (LSMU) was preparing formal declarations of the seasonal turtle and dugong hunting closures and permit system arrangements in each community plan as regulatory 'Fishery Management Instructions' under the Torres Strait Fisheries Act (TSFA).²⁵ An agenda paper for the November 2009 meeting of the Torres Strait Management Advisory Committee noted that further negotiation was needed with PNG on traditional inhabitant support for these proposed arrangements.²⁶ A draft strategic assessment report of the Torres Strait turtle and dugong fishery by DEWHA commended the TSRA for the community-based approach to management and recommended the approach to the PZJA as a tool for future management of the fishery.²⁷

10.25 The committee notes that a Marine Turtle and Dugong Workshop, held in Daru in June 2010, continued to build on the efforts of local communities, government agencies and researchers to engage PNG traditional inhabitants in the sustainable management of turtle and dugong in the region.²⁸

10.26 In addition to these various workshops and community-level meetings with Treaty villages, there are a number of meetings through which conservation matters can be considered jointly by Australia and PNG: namely the Environment Management Committee and the Joint Advisory Committee.

22 *Submission 18*, p. 17.

23 *Submission 18*, p. 24.

24 *Submission 18*, p. 18.

25 *Submission 18*, pp. 16–17.

26 Torres Strait Fisheries Management Advisory Committee, Meeting no 11, 11-12 November 2009, Agenda item no. 3.1.

27 TSRA, *Submission 18*, p. 18. The assessment was conducted in accordance with the *Environment Protection and Biodiversity Conservation Act 1999* (EPBCA).

28 See David Roe, *Marine Turtle and Dugong Awareness Program for Western Province, Papua New Guinea: Outcomes of Development Workshop*, 10 June 2010, Daru.

Environment Management Committee and the Joint Advisory Committee

10.27 The Environment Management Committee (EMC) under the Joint Advisory Committee (JAC) is a key mechanism whereby Australia and PNG can share information and collaborate on matters affecting the environment within the Torres Strait Treaty Zone and surrounding region. DEWHA explained that the EMC would continue to address marine turtle and dugong issues, 'with both Australia and PNG seeking ways and means to implement a framework for their sustainable management'.²⁹

10.28 The TSRA informed the committee that the JAC supports the efforts of traditional inhabitants on both sides of the border to cooperate in the management of these species.³⁰

PNG's capacity to engage in management planning

10.29 These community and higher government-level meetings are only the first step toward establishing a genuine partnership between PNG and Australia to meet key environmental objectives for the Torres Strait. But as noted by the TSRA, PNG has difficulties matching expectations. Mr See Kee noted that at the JAC meetings, there appears to be 'common acknowledgement of issues, many of which are "long standing"'. He explained further that in reviewing environmental related issues over the past five years:

There is a commitment to do it on the other side but not too many resources, so nothing much changes. Torres Strait...is a joint jurisdiction area, so it makes it very hard to move forward...in the eyes of the community it seems that everything is being done on this side to make it sustainable and so people have to give things up in some ways, yet there does not seem to be that reciprocity across the border in the arrangements that are happening.³¹

10.30 The challenge for Australia is not only to secure PNG's support for conservation and sustainable management plans in the Torres Strait but to assist it with the wherewithal to engage actively and with common purpose. There is a clear need to have local communities on the PNG side participate as practical partners in the conservation of marine species in the Torres Strait and for them to develop programs that complement those on the Australian side.

Committee view

10.31 The committee appreciates that community engagement in the formulation and implementation of the community management plans is vital to their success,

29 *Submission 24*, p. [3].

30 *Submission 18*, p. 17.

31 *Committee Hansard*, 24 March 2010, p. 7.

including an effective and committed partnership with neighbouring PNG villages. Thus, when considering the sustainable management of species such as turtle, dugong and bêche-der-mer in the Torres Strait, the role of PNG cannot be overlooked. Support by PNG traditional inhabitants for, and their compliance with, the plans is needed to achieve the objectives.

10.32 The community management plans and ranger programs discussed earlier provide an ideal foundation upon which to build a much broader fisheries management approach in the Torres Strait. The committee recommended that the Australian Government ensure that there is adequate funding available to local communities to allow them to continue and to expand the community management plans and their implementation. Assistance is also needed to support conservation measures on the PNG side of the border.

Recommendation 13

10.33 The committee recommends that AusAID, in conjunction with local communities in the Torres Strait, consider ways that would enable much greater engagement by PNG villagers in the work of community rangers in the Torres Strait as a means of educating and training them in conservation and biosecurity and in managing their environment. In particular, the committee recommends that the Australian Government support the TSRA's efforts to engage coastal communities in Western Province in turtle and dugong conservation.³²

10.34 The committee recommends further that the Australian Government fund a number of scholarships for PNG post-graduate students whose research would be linked to the community management plans now in operation in the Torres Strait and the work of community rangers.

Research on the Torres Strait

10.35 The committee recognises that access to sound and reliable data is vital to developing management plans that would allow traditional inhabitants to continue their activities in the Torres Strait without compromising the health of future fish stocks. In this section, the committee looks at data collection and research with regard to conservation and sustainable management in the Torres Strait.

10.36 In the previous chapter, the committee noted the inadequacy of data on the population status of turtle and dugong in the Torres Strait. Indeed, the committee cited a number of studies that have commented on the limited data that is available for scientific assessment of the sustainability of marine turtles and dugongs in the region.³³ The committee also referred to other factors that complicate predicting the

32 TSRA, *Submission 18*. See recommendation 5.

33 See for example, Jillian Grayson et al, *Information to assist Torres Strait Islanders manage their traditional fisheries for dugongs and green turtles*, Final project report prepared for the Ocean Park Conservation Foundation, May 2006, p. 6.

future health of these stocks, including the long-term effects of current practices or events, the results of which may not become apparent for many years. The possible increased demand on marine resources due to population growth in the South Fly District adds to the mix of factors that could influence the extent to which protected species are harvested. Changes in climate and their potential to damage the breeding and foraging habits of these animals creates further difficulties when formulating and implementing conservation measures and underscores the importance of having data that is current and reliable.

10.37 Mr Oxley explained that on the evidence in front of them and recognising that they were not necessarily working in an information-rich environment, DEWHA was 'reasonably confident that in the Torres Strait those resources were being managed sustainably'.³⁴ He agreed, however, that they would be more comfortable if they had better information at their disposal but that more resources would be needed to address this matter.³⁵ He explained that broadly, the marine environment is 'little understood relative to our terrestrial environment and that one could spend a very large amount of money improving that understanding'.³⁶

Recommendation 14

10.38 The committee recommends that the Australian Government ensure that there is adequate funding available for:

- **regular assessments of stocks of protected or vulnerable marine species in the Torres Strait; and**
- **research into the nature and size of the catch by traditional inhabitants and the illegal or unauthorised harvest of marine turtles, dugong and bêche-de-mer in the Torres Strait.**

Research institutes

10.39 Although there is no commercial turtle or dugong fishing in the Torres Strait, their stocks are monitored.³⁷ For example, studies to gauge the traditional catch of turtles in the Torres Strait first began in the 1970s. The CSIRO and the MTSRF are two of the key institutions that conduct surveys and research work across a range of conservation matters in the Torres Strait.

10.40 CSIRO is one of a few research institutions that has carried out research on turtle fishery.³⁸ It undertook more detailed investigations of dugong and turtle harvests in the early 1990s which were continued by AFMA in the periods 1993–1996

34 *Committee Hansard*, 17 December 2009, p. 68.

35 *Committee Hansard*, 17 December 2009, p. 69.

36 *Committee Hansard*, 17 December 2009, p. 69.

37 *Committee Hansard*, 17 December 2009, p. 59.

38 *Committee Hansard*, 18 December 2009, p. 35.

and 1996–2000/01.³⁹ More recently, it has undertaken numerous biodiversity surveys throughout the region, including deepwater habitats, reef habitats and mudflat seagrass communities. These have been used for mapping, marine habitat characterisation and environmental impact and sustainability studies, particularly of the Torres Strait prawn fishery.⁴⁰ The two surveys on *bêche-de-mer* in the Torres Strait mentioned in the previous chapter are examples of the work that CSIRO is doing to monitor and assess the status of stock numbers in the region so that decision makers are able to formulate sound management plans.

10.41 The MTSRF also conducts monitoring programs in the Torres Strait for turtle and dugong. It has a research program that covers marine species of conservation concern, including the study of the condition and stock trends of dugongs and marine turtles in the Torres Strait and management options to improve their status.⁴¹ The facility places a high priority on working with local communities in undertaking research.

Working with communities

10.42 The committee has already drawn attention to the need for community support and involvement in devising and implementing management plans for vulnerable marine species in the Torres Strait. This level of engagement extends to research projects. In this regard, the 2007 Torres Strait turtle and dugong fisheries assessment found:

There appears to be an underlying level of misunderstanding/distrust between indigenous groups and the research/management agencies involved in the turtle and dugong fisheries, as evidenced by community concerns that any data collected/provided may ultimately be used in ways that are not in the communities' best interests.⁴²

10.43 For some time, a number of island representatives have called on researchers to involve traditional inhabitants in their work 'to ensure communities have faith in

39 Jillian Grayson, Helene Marsh and Mark Hamann, *Information to assist Torres Strait Islanders manage their traditional fisheries for dugongs and green turtles*, Final project report for the Ocean Conservation Foundation, May 2006, p. 9.

40 Dr Andy Sheppard, *Committee Hansard*, 18 December 2009, p. 32.

41 Marine and Tropical Sciences Research Facility, Annual Research Plan 2009–2010, Department of the Environment, Water, Heritage and the Arts updated December 2009, pp. iv and 60–95.

42 *Torres Strait Turtle and Dugong Fisheries Assessment Report*, prepared by the Australian Fisheries Management Authority on behalf of the Torres Strait Protected Zone Joint Authority, January 2007, p. vi. http://www.pzja.gov.au/notices/notices/2007/Final_TandD_Report.pdf p. vi.

research results'.⁴³ For example, concerns were raised in 2009 in relation to researchers not discussing 'research requirements with traditional property owners... regarding research they wish to be conducted in their land and sea country'.⁴⁴

10.44 CSIRO researchers are aware of the importance of finding better ways to 'include community input with Western science and management practices'. They believe that this engagement 'is the only way forward for Torres Strait fisheries'.⁴⁵ For example, an objective of the 2009 bêche-de-mer survey was to transfer resource management skills to traditional inhabitants. It included a consultation phase intended to allow traditional property owners to explain their needs and opinions on the status and management of the sea cucumber and trochus; to inform them of past research and allow them direct input into the survey. There was also a training component where trainees attended a two-day workshop and some went on to assist CSIRO researchers during the survey.⁴⁶ The Torres Strait Scientific Advisory Committee viewed 'favourably' CSIRO's approach to involving and employing Torres Strait Islanders in these surveys.⁴⁷

10.45 Researchers with the MTSRF also understand the importance of ensuring that any new solutions and ideas emanating from research are conveyed in a meaningful way to the people who need to know—managers, policy-makers, practitioners and the general public as well. Ms Morris noted that 'knowledge delivery' is a major focus of the institution's research.⁴⁸ She explained, moreover, that the facility engages and trains many Indigenous technicians:

43 See for example, Torres Strait Hand Collectable Fisheries Working Group no. 2, Minutes, 17–18 July 2008, item 2.1. During a 2008 meeting, the Torres Strait Hand Collectable Fisheries Working Group agreed that 'it was essential that Traditional Owners be involved in a meaningful way in the research process'.

44 Torres Strait Hand Collectable Fisheries Working Group, Meeting no. 3, Minutes, 5–6 August 2009, item 2.1.

45 For example, during a 2008 meeting of the Torres Strait Hand Collectable Fisheries Working Group, Mr Skewes stated that it was time to have better 'community input with Western science and management practices' and that this approach was 'the only way forward for Torres Strait fisheries'. Torres Strait Hand Collectable Fisheries Working Group no. 2, Minutes, 17–18 July 2008, item 2.1. See also comments by Mr Skewes in Torres Strait Hand Collectable Fisheries Working Group, Draft Record of Meeting, No. 1, 9–10 October 2007, item 3.1 and 2.4; and Annabel Jones, AFMA, Torres Strait Hand Collectable Fisheries Working Group no. 2, Minutes, 17–18 July 2008, item 2.1.

46 Tim Skewes et al, *Torres Strait Hand Collectables, 2009 survey: Sea Cucumber*, CSIRO, Cleveland, 2010, pp. 6 and 9 and Tim Skewes and N.E. Murphy, *Torres Strait Hand Collectables: Warrior Reef Sandfish survey*, CSIRO, Cleveland, 2009, p. 4.

47 Torres Strait Scientific Advisory Committee, Meeting no. 52, 16 June 2010, Chair's Summary, p. 3. Torres Strait Hand Collectable Fisheries Working Group, Meeting No. 4, 27–28 July 2010, Agenda items 2.1 for noting and 2.2 for discussion.

48 Marine and Tropical Sciences Research Facility, Press release, 'Delivering for the Torres Strait', 7 October 2009, <http://www.rrc.org.au/mediadirectory/downloads/deliveringfortorresstrait.pdf> (accessed 16 March 2010).

They all have to have commercial dive tickets, they all have to have coxswain tickets, they all have to be trained in scientific technique, and we do as much of that as we can in the region.⁴⁹

10.46 For example, Ms Morris informed the committee that the research facility works together with the 51st Battalion, the Far North Queensland Regiment which, in her view, has proved to be 'very helpful'. The Battalion's C Company is based in the Torres Strait and is composed mainly of reservists drawn from the local communities, including from the outer islands such as Boigu.⁵⁰ They conduct numerous patrols and surveillance activities in the region. She explained that they train many of these soldiers to work as Indigenous technicians with their research scientists. In her view, that is a 'very good' program and has been working for quite a long time. She noted further that researchers share information with the battalion on their monitoring sites and matters relevant to illegal activity.⁵¹

10.47 According to Ms Morris, their researchers also work very closely with each other on the ground in the Torres Strait and invite other researchers and entities to come up and utilise their facilities and structures.

Committee view

10.48 The committee understands that any data gathering or research on the environment in the Torres Strait requires the engagement of the traditional inhabitants not only to secure strong local support for recommendations coming out of projects but to ensure that local communities understand and can apply the results. It notes CSIRO's recent practice of including and employing local inhabitants in its surveys in the region. The committee was also impressed by the approach taken by the MTSRF to involve local communities in their research activities. For example, the committee supports the work being done by C Company, 51st Battalion, Far North Queensland Regiment, in the Torres Strait in helping researchers with their monitoring and reporting on illegal fishing. It would like to see greater recognition for such work and, where possible, every assistance and encouragement given to research institutes to continue, as an integral part of their programs, to provide educational and training opportunities for local people.

49 *Committee Hansard*, 25 March 2010, p. 35.

50 Information provided to the committee during its inspection of the Regiment's facilities on Thursday Island. See also Department of Defence website, <http://www.defence.gov.au/army/51fnqr/Outstations1.asp> (accessed 7 June 2010). The website explained that 'As the only part of Australia where the neighbouring country is visible from the shoreline, the Company has inherited a strategic focus in which we often work with agencies from the State and Commonwealth Governments.'

51 *Committee Hansard*, 25 March 2010, p. 34.

Funding

10.49 With regard to future funding for research, DEWHA informed the committee that MTSRF had concluded its research program (with the exception of some research synthesis products currently being developed) on 30 June 2010. It explained that the intention was to continue funding environmental research in the Torres Strait through a Great Barrier Reef and Torres Strait Hub. According to DEWHA:

Expressions of Interest against specific research areas were received from interested research institutions in May 2010. The research areas included the Torres Strait. These are in the process of being assessed by DEWHA and an expert scientific panel. It is intended that the successful applicants will be contracted to commence this research by the end of 2010. Up to \$7 million per year will be allocated to this hub.⁵²

10.50 Two million dollars has been assigned to MTSRF as an extension of current research funding arrangements to cover the transition to the new program.⁵³

10.51 The committee recognises the contribution that the MTSRF has made over recent years to research in the Torres Strait. It particularly notes the emphasis that the research institute has placed on engaging local communities and would hope that future programs continue this practice. The committee wishes to see these kinds of 'best practice' criteria taken into consideration when the government assesses applications for research funding.

Recommendation 15

10.52 The committee recommends that the Australian Government ensure that when allocating funding for research projects in the Torres Strait, relevant agencies place a high priority on projects that demonstrate a commitment to engaging local communities in the formulation and design of these projects and, where possible, to training local Indigenous people in research techniques and sustainable management.

Working with PNG

10.53 To secure the cooperation of PNG communities in any conservation measure, they need to feel that such measures will not disadvantage them. As noted earlier, having PNG villagers work alongside Torres Strait Islanders in implementing community management plans would provide the villagers with the opportunity to gain an understanding of the reasons for imposing conservation measures. Similarly, their involvement in joint research projects would not only strengthen their appreciation of the long-term advantages of such measures but also encourage greater compliance with, and support for, enforcing these measures. Also, involving local

52 DEWHA, Answer to question taken on notice, 18 June 2010.

53 DEWHA, website, Lists of grants let by the Department of the Environment, Water, Heritage and the Arts, August 2010.

PNG nationals in research is another means of building capacity on their side of the border. For example, with regard to the Warrior Reef sandfish, Dr Sheppard informed the committee that it was vitally important to continue coordinated research with the PNG's National Fisheries Authority for its sustainable exploitation.⁵⁴

10.54 Evidence suggested, however, that cooperation with PNG in the area of research could be strengthened. For example, Mr Skewes, CSIRO, explained that while they have conducted research on Warrior Reef sandfish fishery, 'much less research' had been done on the Papua New Guinea side than on the Australian side. He went on to say:

Where possible, we try to include Papua New Guinea when we do our research and we do joint cruises. We have done at least one significant joint cruise in the Torres Strait to do with the sea cucumber fishery.⁵⁵

10.55 Mr Skewes informed the committee that they had planned to conduct a joint survey of bêche-de-mer with their PNG counterparts in PNG in February 2010. He explained further that although collaboration was looking 'a little bit difficult at the moment, they would still endeavour to arrange a joint survey of the PNG and Australian side. He explained that the AFMA and CSIRO co-invest some resources towards the survey.⁵⁶ According to advice provided to the Torres Strait Scientific Advisory Committee in June 2010, however, while PNG did carry out a survey of bêche-de-mer on the PNG side of Warrior Reef, it was not in partnership with the CSIRO survey.⁵⁷

10.56 The MTSRF and the PNG Department of Environment have also conducted major training exercises on Daru for both the Treaty village and Torres Strait hunters on turtle take, their population trends, and turtle and dugong management plans. Even so, Ms Morris noted that while there may have been meetings, greater engagement was required:

Lots of meetings, no actual doing; this next phase is the doing phase...They are hard to get in touch with sometimes...sometimes they are difficult to communicate with...you do not get any resistance to cooperation and everyone is relatively positive, except actually getting them to a place or organising anything is a work in frustration—it takes a long time.⁵⁸

10.57 Some observations made during the 2010 dugong and turtle workshop held in Daru indicated the importance of support for this type of collaborative activity. For example, over 25 representatives from the Treaty villages attended the meeting and

54 *Committee Hansard*, 18 December 2009, pp. 32–3.

55 *Committee Hansard*, 18 December 2009, p. 36.

56 *Committee Hansard*, 18 December 2009, pp. 36–37.

57 Torres Strait Scientific Advisory Committee, Meeting no. 52, 16 June 2010, Chair's Summary, p. 4.

58 *Committee Hansard*, 25 March 2010, p. 38.

voiced a strong desire for the program to continue. They also stressed the need for continued communication with their communities and raised important issues that could offer guidance for future research. For example, the workshop report noted that economic realities may not give hunters the luxury to reduce their take of turtle and dugong even if they wanted to do so, which produced comments relating to other 'supplies of protein to replace marine turtle and dugongs through government backed schemes'.⁵⁹

10.58 The potential for PNG villagers to guide and assist research in the Torres Strait is considerable. Australia's aid program would appear to be an ideal vehicle to enable them to make such a contribution. In its report on the economic challenges facing PNG and the Pacific islands, the committee considered in detail the work of ACIAR in the region, particularly in PNG. The committee notes that restocking (especially of sea cucumber) is one of the numerous research priorities that ACIAR has identified in PNG. Such research could be carried out in conjunction with the work of CSIRO and MTSRF in the Torres Strait and illustrates the scope for joint research projects.

Committee view

10.59 The committee believes that the ground work started in the Torres Strait with the development of community management plans and efforts to engage Treaty villagers in the sustainable development of the region provides an ideal opportunity for greater collaboration between Australian-funded research institutes working in PNG with those working in the Torres Strait. The committee is of the view that the Australian Government should provide assistance through its aid program to facilitate and encourage the involvement of PNG Treaty villages in the community management plans as a means to build capacity in PNG. It also believes that the government should give priority to measures designed to assist PNG communities to become active and constructive partners in the effective operation of community management plans for the Torres Strait region. In the committee's view, such assistance would go a long way toward achieving a stronger partnership between Australia and PNG researchers and to build much needed capacity in PNG that would enable its people to develop their marine resources in a sustainable way.

Recommendation 16

10.60 The committee recommends that:

- **As a high priority, the Australian Government consider engaging AusAID and other Australian agencies working in PNG such as ACIAR as partners with Australian research bodies working on the Australian side of the border. This partnership, which would include local communities, would be designed to ensure that work on the PNG side**

59 See David Roe, *Marine Turtle and Dugong Awareness Program for Western Province, Papua New Guinea: Outcomes of Development Workshop*, 10 June 2010, Daru, p. 8.

complements, builds on and reinforces the conservation and biosecurity work being done on the Australian side.

- **In line with this priority, the committee recommends that, wherever practical, researchers or project officers working in the Torres Strait are encouraged to establish or strengthen partnerships with counterparts in PNG so that work on both sides of the border is complementary and builds critical networks of researchers who are then well positioned to collaborate in further research. AusAID could act as a key coordinator in forging these links.**

10.61 The committee has concentrated on effective conservation through community engagement in the preparation, formulation and implementation of management plans. Unfortunately, measures such as awareness raising and garnering local support for community management plans may not, by themselves, provide sufficient incentive for all to participate in and observe sound management practices. More coercive measures, including the enforcement of regulations governing the harvesting of protected species, may be required.

Compliance and enforcement

10.62 A number of government agencies in the Torres Strait contribute to the surveillance of activity and enforcement of laws relating to protected species. Firstly, DEWHA monitors illegal fishing activity by obtaining intelligence through a mix of sources—AFMA, the Queensland Boating and Fisheries Patrol, Border Protection Command and also through people in the communities.⁶⁰ DEWHA's compliance branch is generally responsible for taking action on such reports.

10.63 Ms Tania Rishniw, DEWHA, explained that the department's compliance focus tends to be on activities and issues that fall under the EPBC Act. The Act covers any listed migratory or marine species, including seabirds, dolphins or other cetaceans, or any range of species that are protected as matters of national environmental significance under the legislation.⁶¹

10.64 AFMA has four officers in the Torres Strait involved in the management of the fisheries. It also has two foreign compliance officers permanently stationed there who look at illegal boat traffic through the Torres Strait.⁶² The Torres Strait Hand Collectables Working Group reported that AFMA retains a strong focus on

60 *Committee Hansard*, 17 December 2009, p. 54.

61 *Committee Hansard*, 17 December 2009, pp. 72–73.

62 Professor Hurry, *Committee Hansard*, 17 December 2009, p. 54.

responding to illegal, unregulated and unreported (IUU) fishing, noting in particular additional surveillance activities in the Warrior Reef area.⁶³

10.65 The Queensland Boating and Fisheries Patrol also have compliance officers in the Torres Strait. The catch taken in the Torres Strait is monitored through the collection of daily fishing records from non-Islanders and the records of sales of catch from Islander commercial fishers.

10.66 Where on-the-water engagement is required, the apprehension aspect of enforcement with regard to foreign fishing vessels is primarily the responsibility of Border Protection Command (BPC) and informed by AFMA as the management agency. BPC is the central coordinating point and has responsibilities that are delegated under legislation to undertake compliance activities on DEWHA's behalf.⁶⁴

10.67 This on-the-water enforcement extends beyond detecting and apprehending those fishing illegally for protected species in the Torres Strait. It also includes a range of other activities such as people smuggling and drug trafficking. As such, BPC is considered in greater depth in the chapter dealing with border control. At this stage, the committee notes, however, that because of increased surveillance over recent years, there has been a significant decrease in the number of illegal fishers detected in the Torres Strait.⁶⁵ Nonetheless, concerns remain about the lack of information on the unreported harvesting of marine turtle, including their eggs, and of dugongs in the Torres Strait by traditional inhabitants, especially poachers from the PNG side of the border.

Conclusion

10.68 The committee focused on three marine species in the Torres Strait that require effective and sound management if their stocks are to remain viable into the future—marine turtle, dugong and bêche-de-mer. It found that the support and engagement of local communities in their management was essential to protect these species from over exploitation and stock depletion and, where necessary, to restore populations to sustainable levels. Further, that local people need to be equipped with the scientific knowledge to help them manage vulnerable species effectively. The development of community management plans, employment of community rangers and engagement of local people in research and monitoring projects requires the government's continuing support. Although the committee focused on only three

63 The Group noted in July 2010 that AFMA conducted regular surface patrols in the Warrior Reef area and would 'continue to monitor fishing activity on PNG's side of the Fisheries Jurisdiction Line'. Torres Strait Hand Collectable Working Group, Meeting 4, 27–28 July 2010, Agenda item 4.1 for noting.

64 *Committee Hansard*, 17 December 2009, p. 72.

65 See Attachment 5.3A to Torres Strait Hand Collectable Working Group, Meeting 4, 27–28 July 2010. It noted that three PNG vessels were apprehended in 2006–07, fifteen in 2007–08, and nine in 2008–09; of these nine apprehensions, eight occurred on or in proximity to Warrior Reef.

species, it understands that this approach to community management also applies generally to the protection of native flora and fauna in the Torres Strait.

10.69 The committee also recognised that the Torres Strait is a complex eco-system and that people from both Australia and PNG hunt and fish in the region. In this regard, Australia cannot by itself implement conservation measures that would successfully remove concerns about the future health of vulnerable stocks in the region. Any management plan in the Torres Strait requires the involvement and cooperation of the PNG government and PNG traditional inhabitants. The reports of illegal poaching make this particularly important.

10.70 Finally, the committee highlighted the importance of careful and assiduous monitoring and assessment of marine life. It noted some key factors that underscore the need for this level of attention and for continuing research on marine resources in the Torres Strait. They include the unknown level of harvest of protected species, illegal poaching, possible increase in demand for these resources and climate change. Clearly, for some species, especially with regard to marine turtles, time is of the utmost importance. The committee has made recommendations:

- to ensure that there is adequate funding for targeted research on native flora and fauna in the Torres Strait that are classified as vulnerable or endangered;
- for continued Commonwealth support for the ranger program;
- to redouble efforts with PNG to
 - build capacity in the area of conservation research;
 - involve and secure commitment from the PNG Government and local inhabitants to work with Australia to ensure that the fauna and flora of the Torres Strait does not suffer from over exploitation; and
- to ensure that the work of AusAID, through Australian agencies in PNG such as ACIAR, complements that of the research institutes working in the Torres Strait.

10.71 Biosecurity is an important factor in protecting the environment from harm. The following chapter considers threats to the environment introduced from outside the region—noxious weeds, pests and diseases and pollution from vessels passing through the straits.