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FOURTH MEETING OF THE SIGNATORIES TO  
THE MEMORANDUM OF UNDERSTANDING FOR  
THE CONSERVATION OF CETACEANS AND THEIR  
HABITATS IN THE PACIFIC ISLANDS REGION

5-6 August 2021, *Online*

**REPORT OF THE MEETING**

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## REPORT OF THE FOURTH MEETING OF THE SIGNATORIES TO THE MEMORANDUM OF UNDERSTANDING FOR THE CONSERVATION OF CETACEANS AND THEIR HABITATS IN THE PACIFIC ISLANDS REGION

### 1. Opening of the Meeting and Organisational Matters

#### 1.1. Welcoming Remarks

1. The Fourth Meeting of the Signatories (MOS4) to the CMS Memorandum of Understanding for the Conservation of Cetaceans and their Habitats in the Pacific Islands Region (PIC MOU) was opened by Melanie Virtue (CMS Secretariat). She welcomed participants, thanked the Secretariat of the Pacific Regional Environment Programme (SPREP) for hosting the meeting, and summarised the aims of the meeting. She noted that the first day of the meeting would consist mainly of expert presentations, while the second day would examine the proposed Whale and Dolphin Action Plan (WDAP) in greater detail and plan a way forward.
2. The Director-General of SPREP, Kosi Latu, presented his welcoming remarks. He noted that the MOU is a key mechanism for protecting cetaceans in the Pacific Islands region and said that SPREP would welcome support from member governments, especially for migratory species that pass through several national jurisdictions each year. The full text is attached as Annex 3.

#### 1.2. New Signatories

3. Ms Virtue welcomed the United States, who had signed the MOU in 2012 and was attending the meeting as a Signatory for the first time. There had been no new Signatories to the Pacific Island Cetacean MOU (PIC MOU) since 2012, and no new expressions of interest from any Countries or Territories.

#### 1.3. Election of Officers

4. Ms Virtue sought nominations for the post of the Chair. New Zealand nominated Frances Reupena from Samoa (Ministry of Natural Resources and Environment). The Cook Islands seconded this nomination. Ms Reupena assumed the role of Chair of the Meeting.

#### 1.4. Adoption of the Agenda and Meeting Schedule

5. The Chair introduced the Provisional Annotated Agenda and Schedule ([CMS/PIC/MOS4/Doc.1.4b/Rev.1](#)) and sought comments. Karen Baird (SPREP) indicated a change in the meeting schedule: the presentation under Agenda Item 3.1.7 would take place between Agenda Items 3.1.1 and 3.1.2 and would be delivered by Scott Baker (South Pacific Whale Research Consortium, SPWRC). The Agenda and Schedule were adopted as amended.

### 2. Reports on Implementation

#### 2.1. Report of the Secretariat

6. Introducing the report ([CMS/PIC/MOS4/Doc.2.1](#)), Ms Virtue said that in the past, CMS had been supported by Whale and Dolphin Conservation (WDC) in the coordination of the PIC MOU. For some time, funding had also been available for a CMS Pacific Officer position, based at SPREP, which had provided assistance to the PIC and Dugong MOUs. The CMS Secretariat was grateful to SPREP for this work, and regretted that it had not been possible to continue this arrangement due to a lack of funding. Ms Virtue highlighted a number of CMS Resolutions

and Decisions relevant to cetaceans in the report which had been adopted at the 13th Meeting of the Conference of the Parties in 2020.

7. Ms Virtue also highlighted the Secretariat's close collaboration with the International Whaling Commission (IWC). They recently held a joint workshop on cetacean ecosystem functioning. One of their most successful collaborations with the IWC was the development of a Whale Watching Handbook, an online tool available in English, French and Spanish to governments, operators, and the public.
8. The CMS Secretariat had also produced a number of reports and fact sheets relevant to cetaceans, and in association with WWF, published a review of methods used to reduce the risk of cetacean bycatch and entanglements in fishing operations. Also with WWF, guidance had been produced for the safe and humane handling and release of cetaceans taken as bycatch in fishing gear.

## 2.2. Report from SPREP

9. Michael Donoghue (SPREP) delivered a presentation on SPREP's activities relating to the CMS PIC MOU undertaken between 2012 and 2021 ([CMS/PIC/MOS4/Doc.2.2](#)). He highlighted a workshop in 2014 on Strandings and Disentanglement that was conducted in Vava'u with IWC. He stated that the 'Pacific Year of the Whale' campaign in 2016/17 had been a big commitment by SPREP and its members. The event had been opened by now newly-elected Prime Minister of Samoa, Fiamē Naomi Mata-afa, which reflected the importance attached to cetaceans by governments in the region.
10. Thanks to the support of France, the New Zealand Arts Council, and the Pew Foundation, an exhibition of art based on whales had been launched at the Jean-Marie Tjibaou Cultural Centre in Noumea. The exhibition provided a good example on how to successfully deliver conservation messages to a different audience in a different way.
11. The 'Whales in a Changing Ocean' conference in 2017 ([CMS/PIC/MOS4/Inf.2.2](#)) was also an important part of the Pacific Year of the Whale campaign. Mr Donoghue acknowledged the effort made by the Tongan government, as evidenced by the fact that the conference was chaired by the Deputy Prime Minister, Honorable Sione Sovaleni, and the Minister of Fisheries Honorable Semisi Fakahau. Mr Donoghue further noted that many of the issues to be addressed at this Meeting of Signatories stem from the Whales in a Changing Ocean conference.
12. SPREP also attended the UN Ocean Conference in New York in June 2016, where they hosted a side-event which was chaired by Minister Fakahau. The Year of the Whale guided many delegations there and was important in bringing forward voluntary commitments from governments, including a commitment on mitigating the impacts of ocean noise on cetaceans, proposed by the Wildlife Conservation Society (WCS), to which SPREP was a signatory. One important outcome was the release of a draft document on *Pacific Island Whales in a Changing Climate* ([CMS/PIC/MOS4/Inf.3.1.9b](#)). This was the first time that the likely effects of a changing and warming ocean on Pacific Island whales had been seriously examined outside a purely scientific context.
13. Mr Donoghue noted the International Monetary Fund's (IMF) publication of *Nature's Solution to Climate Change* ([CMS/PIC/MOS4/Inf.3.1.9a](#)) as a noteworthy development, following on from the Whales in a Changing Ocean conference. The document highlighted the potential role of whales in capturing and sequestering carbon, and how increasing global whale populations might help to reduce the amount of carbon dioxide in the oceans.
14. SPREP had also worked with various governments and NGOs to promote best international practices for whale watching. Mr Donoghue noted that whilst COVID had profoundly impacted the industry, it also provided a valuable opportunity for a reset moving forward.

15. Through the Pacific-European Union Marine Programme's Bycatch and Integrated Ecosystem Management initiative, SPREP had become more directly involved in bycatch and ecosystem management. The bycatch of cetaceans in commercial fisheries was being assessed, and bycatch and mitigation strategies would be developed and rolled out. He noted that capacity development through a SPREP-administered research grant might be used to address the critical state of two species of endangered dolphins in the Kikori Delta in Papua New Guinea.
16. Mr Donoghue concluded by acknowledging that SPREP couldn't have undertaken its activities without external collaboration. He noted that Australia, France, and New Zealand had been particularly generous in their funding support. CMS and IWC had been good partners to SPREP, and other collaborations and NGO contributors had also been extremely helpful.

### 2.3. Summary of the Status of Implementation of the Whale and Dolphin Action Plan

17. Hannah Hendriks (SPREP) presented [CMS/PIC/MOS4/Doc2.3](#) and explained that the purpose of SPREP's recent work on the Pacific Islands Regional Marine Species Programme 2013-2017 was to consult with Pacific Island territories to assess progress, identify challenges, and obtain feedback, including for the Whale and Dolphin Action Plan. This would assist in developing the new Marine Species Programme 2022-2026.
18. She noted that the process had consisted of implementation tables which were pre-filled with information on which members have already reported, with further requests for video calls sent out via SPREP focal points in order to discuss activities that have been undertaken. Information had been collected from July 2020 to March 2021. Calls were conducted with American Samoa, Niue, Palau, the Solomon Island, Tonga, and Tuvalu.
19. Ms Hendriks noted that engagement had unfortunately been low, possibly due to the impact of COVID, and hence SPREP had only obtained limited information about the implementation of the Plans. Regardless, all available information was collated into the implementation report, which was now available on the [SPREP website](#) and had been made available to this meeting.
20. From the information collected, Ms Hendriks highlighted various activities of relevance to the Whale and Dolphin Action Plan under the themes of information awareness, education, capacity building, threat reduction, ecosystem and habitat protection, legislation, cultural significance, research and monitoring, and tourism.
  - Information awareness, education and communication: SPREP designated 2016/17 as Year of the Whale, which saw various public lectures, school programmes etc. The year also saw the online publication of whale tracking (New Caledonia and French Polynesia), and various awareness campaigns informing the public about whale watching best practices.
  - Capacity building: a stranding workshop had been conducted in Tonga, and a delegate from Samoa was sponsored to attend CMS COP12 in the Philippines. A capacity building workshop and tour of New Zealand marine mammal tourism had been planned for Tonga, but was cancelled due to COVID lockdown.
  - Threat reduction: the Pacific Island Whales in a Changing Climate Report was published in 2017. In New Caledonia, studies indicated that 11% of dolphins photographed presented with anthropogenic marks. Solomon Islands banned the live capture and export of dolphins. The Bycatch and Integrated Ecosystem Management (BIEM) initiative is engaging with Western Central Pacific Fisheries Commission (WCPFC) and The Pacific Community (SPC) to improve data collection, mitigate by-catch, and provide safe handling guidelines.
  - Ecosystem and habitat protection: overall, over 36 million km<sup>2</sup> of SPREP member EEZs was declared as whale sanctuaries.
  - Legislation, policy and management plan: Fiji recently published its National Biodiversity Strategy and Action Plan 2020-2025 as well as its National Ocean Policy 2020-2030.

- Cultural significance and value: some local communities continue to utilize stranded cetaceans for meat and bone and a few communities still conduct traditional hunts.
  - Research and monitoring: various monitoring and research programmes continue, using photo ID, genetic sampling and recording of whalesongs.
  - Whale and dolphin-based tourism: various initiatives have been initiated to manage whale-watching, including regional guidelines published by SPREP.
  - National, regional, and international collaboration: 13 SPREP members are Signatories to the PIC MOU and are also members of CBD.
21. Olive Andrews (IFAW) wished to recognize the efforts of NGO Oma Tafua in particular and their work over the last three Action Plans. Oma Tafua is the only NGO in the Pacific solely dedicated to the conservation of whales. Their activities included working in partnership with the government of Niue to educate the public on marine issues and participating in research with the South Pacific Whale Consortium, which underpinned conservation efforts for the Moana Mahu Marine Protected Area, which covers 40% of Niue's EEZs.
22. Kerrie Robertson (Cook Islands) noted that the Cook Islands had made significant efforts to progress in its implementation of the Whale and Dolphin Action Plan. It was also working on improving the regulatory regime for whales, an effort which is currently underway. She said that the Cook Islands would like to provide a written update for the report. The Chair noted the opportunity to submit this information in writing, which the Cook Islands indicated it would do.

#### **2.4. Reports from Collaborating Organizations on Implementation of the MOU**

##### South Pacific Whale Research Consortium (Scott Baker; [CMS/PIC/MOS4/Inf.2.4a](#))

23. The South Pacific Whale Research Consortium (SPWRCC) was formed in 1999. One of its primary aims was to provide evidence-based research and guidance to Pacific Island governments in the formulation and implementation of management advice for cetacean conservation. It had been an active collaborating organization in PIC MOU and welcomed the opportunity to take part in MOS4. Since the MOS3 in 2012, members of SPWRC had been involved in a number of activities including a coordinated research programme on humpback whales. Through a network of members, they supported collaboration with research projects in Antarctic and sub-Antarctic regions. Relevant research programmes included studies on humpbacks (song, response to anthropogenic noise), the abundance of Indo-Pacific humpback dolphins in the Solomon Islands, and the sustainability of the dolphin export trade and dolphin drive-hunt, also in the Solomon Islands.
24. The Consortium had provided advice to the IWC and to several Pacific Island governments in their declarations of MPAs and sanctuaries. The website on whale and dolphin strandings initiated by the SPWRC had recently been adopted and upgraded by SPREP. Members of the Consortium participated in the Whales in a Changing Oceans conference. Expertise within SPWRC included acoustical, behavioural and demographic approaches to the study of cetaceans. Mr Baker welcomed the opportunity to participate in MOS4 and provide scientific advice in the future.

##### Whale and Dolphin Conservation (Philippa Brakes; [CMS/PIC/MOS4/Inf.2.4b](#))

25. WDC was present at the initial scoping meetings which led to development of the PIC MOU and had remained closely involved since then. WDC had helped to develop documents for PIC MOU Meetings of Signatories in 2007, 2009 and 2012. WDC proudly represented this MOU in other forums, for example by integrating the MOU into the draft CMS Global Programme of Work for Cetaceans adopted by CMS Parties in 2011. During early years of the MOU, WDC was able to provide in-country support to the Signatories. The organisation later took a step back from such close involvement and now welcomed renewed dialogue for future contributions.



26. WDC was interested in efforts to prevent bycatch, understanding takes of small cetaceans, and understanding data gaps, and welcomed efforts to develop a regional threat-listing system, as well as research to quantify impacts of warming oceans and changing ecosystems, and practical and sustainable solutions to help minimize threats. It remained committed to the development of Important Marine Mammal Areas (IMMAs) in order to help develop better homes for cetaceans and noted the designation of 20 IMMAs in the region with 4 more currently under development. Ms Brakes especially welcomed work on social learning and believed the subsequent emergence of animal cultures could provide important insights. WDC looked forward to working with everyone to identify best practice standards to help minimize threats to cetaceans in this richly biodiverse region.

International Fund for Animal Welfare (Rebecca Keeble; [CMS/PIC/MOS4/Inf.2.4c](#))

27. IFAW congratulated and acknowledged the work of SPREP in finalizing marine species Action Plans. They were proud to be one of first signatories to PIC MOU as a collaborating organization and had also supported the Whale and Dolphin Action Plan. In partnership with SPREP, they had developed guidelines and distributed guides for education, awareness and research purposes. IFAW recognized the critical function of science as a basis for conservation management and had supported SPWRC and its function as a scientific advisory for the past two decades. They had been active in supporting capacity building on entanglements, strandings and satellite monitoring and had worked closely with governments and scientists to monitor implementation of protocols aimed at reducing ship speeds.
28. In 2017, IFAW was pleased to support and participate in the Whales in a Changing Ocean conference, where many of the recommended actions for the Whale and Dolphin Action Plan were formed. They had partnered with the Australian company Blue Planet Marine to provide work experience for Pacific Islanders to participate in humpback whale assessment studies in the Great Barrier Reef breeding grounds. IFAW remained a committed partner and signatory to the MOU and looked forward to continue working with all parties in the next phase of cetacean conservation in the region.

World Wide Fund for Nature - Pacific (Alfred Ralifo; [CMS/PIC/MOS4/Inf.2.4d](#))

29. WWF Pacific was based in Fiji and was working at the community level to strengthen community capacity to manage marine resources, which indirectly contributed to implementation of the PIC MOU in the Pacific. Fiji had declared its EEZ as a whale sanctuary, and WWF Pacific had been working closely with the Fiji government in terms of sustainable management and use of reefs and seascape, which benefitted whales that were commonly seen there. They had been facilitating whale-watching and documentation work since 2010 and had worked with the tuna industry on ensuring mitigation of bycatch and managing ghost gear. They worked with the Fiji Maritime Academy to develop a bycatch manual, which had been integrated as part of the Academy's training programme. Moving forward, the Academy will be able to train all its seafarers in reducing bycatch.
30. The Chair expressed her thanks to all speakers and collaborating organisations for their presentations and statements.

### **3. Strategic Focus**

#### **3.1. Conservation Issues**

##### **3.1.1. Review of Pacific Cetaceans and Threats Report**

31. Cara Miller (Invited Expert) gave a preview of an update on cetacean diversity and threats in the Pacific Island region, which she was working on for SPREP. She noted that the Order *Cetacea* covered a broad and diverse set of species.

32. She recalled that there were many different ways in which cetaceans were part of the marine ecosystem and interacted with humans. They occupied a variety of roles and held different niches. Interactions with humans could include ecotourism but also directed operations such as whale and dolphin watching. Cetaceans also had important cultural benefits (e.g. sperm whale teeth in Fiji). Thirty-three different cetacean species had been recorded across the region, which Ms Miller argued was a conservative estimate. Common species included spinner dolphins and sperm whales. There was a much more limited record for other species, such as Longman's beaked whales and snubfin dolphins.
33. Ms Miller then outlined the main threats to cetaceans:
- **Bycatch:** observer reports from WCPFC indicated that primary gear types being used were longline (LL) and purse-seine (PS) fishing gear. Observer information was better for PS than LL, but decreased in 2020 due to COVID-19. In the longline fishery between 2015 and 2019 nearly 300 cetacean interactions had been documented across 27 species and species groups. In the PS fishery for the period from 1995 – 2019 there had been approximately 2,100 interactions with 20 species.
  - Work had also been undertaken that aimed to conduct modelling in order to provide confidence intervals on interaction levels and was being led by Tom Peatman, through SPC. IUU fishing also occurred in the region and likely had some impact on cetaceans. There had also been work in the Kikori Delta region to document bycatch issues for small cetaceans. A report by Temple *et al.* (2021)<sup>1</sup> that examined in which areas of the world cetaceans might be affected by small-scale fisheries operations. This report flagged the Pacific as a high-risk area, likely due to the limited reporting in the region but might also be due to the presence of species that were more vulnerable to interactions with small-scale fisheries, such as the Australasian humpback dolphin and snubfin dolphin.
  - **Direct take:** Historically, commercial whaling had been prevalent in the Southern Hemisphere. After the moratorium on commercial whaling took effect in 1987, migratory species of baleen whales that feed in Southern Ocean waters continued to be taken under research permit whaling until 2018. At the local level, traditional dolphin drive hunts still took place in the Solomon Islands. This was an issue that required ongoing monitoring and evaluation.
  - **Pollution:** Some localized issues were likely linked to commercial areas and tourist regions and were caused by poor waste management practices. She noted that there were multiple, potentially synergistic and somewhat unknown impacts for the marine ecosystem from Deep Sea mining.
  - **Traffic:** Cetaceans could collide with vessels in key shipping routes and ports. Tourism hotspots (areas where ecotourism, fishing is taking place) were another area for potential interactions.
  - **Ocean-physics alteration (including climate change):** The impact of ocean-physics alterations could be both direct and indirect. A review by van Weelden *et al.* (2021)<sup>2</sup> focused on baleen whales, which were predicted to spend less time in warmer locations as sea surface temperatures rose in the tropics and sub-tropics. Given the projected rise in sea temperatures, one might see a restriction in their range in Pacific Islands waters. This would have important consequences not only for marine biodiversity across the region, but also for ecotourism operations. The negative correlation between encounter rates and sea surface temperatures had also been noted by Derville *et al.* (2018)<sup>3</sup>.
  - Other threats to cetaceans might come from pathogens and introduced species and resource depletion.

<sup>1</sup> Temple, A.J., Westmerland, E. and Berggren, P. (2021) 'By-catch risk for toothed whales in global small-scale fisheries'. *Fish and Fisheries*, 22(6), pp.1155-1159. <https://doi.org/10.1111/faf.12581>

<sup>2</sup> van Weelden, C., Towers, J.R. and Bosker, T. (2021) 'Impacts of climate change on cetacean distribution, habitat and migration'. *Climate Change Ecology*, 1, p.100009. <https://doi.org/10.1016/j.ecochg.2021.100009>

<sup>3</sup> Derville, S., Torres, L.G., Iovan, C. and Garrigue, C. (2018) 'Finding the right fit: Comparative cetacean distribution models using multiple data sources and statistical approaches'. *Diversity and Distributions*, 24(11), pp.1657-1673. <https://doi.org/10.1111/ddi.12782>



34. Regarding gaps in knowledge and understanding of cetacean diversity and abundance, Ms Miller recommended a tiered approach. First needed was the development of a better understanding on cetacean diversity and distribution. The next step would be to better understand demographics in order to obtain more detailed population-level information.
35. There were also significant knowledge gaps relating to threats to cetaceans, and Ms Miller suggested the expansion of monitoring activities for particular threats. However, she also pointed out that a focus on species and threats did not provide a complete picture of the situation, as implementation and in-country support and resources were also needed to streamline cetacean conservation and protection in the region.

### 3.1.2. Disentanglement

36. David Mattila (IWC) explained that the IWC disentanglement initiative was started in 2012. He was serving as its coordinator and noted that the IWC had been concerned with bycatch of cetaceans for decades, through what used to be its bycatch sub-committee, now the Human-induced Mortality Working Group of the Scientific Committee. More recently, the IWC has been concerned with welfare issues surrounding bycatch.
37. In 2010, the IWC hosted a workshop to review the breadth and scope of the impacts of entanglement with participants from various countries. Records brought forward by member countries were examined and it was observed that every large whale species had been reported as entangled in man-made materials, primarily in rope and net. The type of rope and net could vary, but the vast majority originated with fishing and was part of fishing gear. This included gillnets and fish pots. Longlines had also been reported to entangle whales. In essence, any passive net that was silent in the water column could lead to entanglement.
38. Mr Mattila further noted that entanglements were not limited to any one type of location, as reports of entanglements might come from breeding grounds, feeding grounds, and migratory routes. He also noted that reports over the past several years had shown entanglements in Fish Aggregating Devices (FADs). Entangled whales could drag them far away from where they were first released, e.g. from the Seychelle islands to South Africa. Whales also entangled in anchored coastal FADs, with the frequency of this phenomenon unknown.
39. Cetaceans could also be entangled in ghost gear, but it was difficult to know exactly what percentage of the problem this comprised. The IWC had set up a rescue network in Hawaii to examine fishing gear over a period of 10 years. It found that anywhere between 5-15% of materials removed from whales could be attributed to marine debris. Mr Mattila noted the challenge that whales might rip and tear the material they blundered into, and that certain materials could stay on them for years. Consequently, what could look like debris might have actually been active fishing gear.
40. The 2010 IWC workshop in Maui agreed that issues occurred whenever whales overlapped with passive gear and that the frequency of such encounters was widely and often severely under-estimated. Though it recommended effective prevention as the ultimate answer to the disentanglement issue, the problem could be mitigated locally and in the short-term by building capacity to respond to entanglement events until better data could be obtained to develop long-term prevention measures.
41. In 2011, the IWC organized a second workshop to develop best practices to respond to entangled whales. Since then, when the IWC received a request by civil society or government for capacity building, it would work with them to identify key hotspots and trainees and conduct a two-day training (one day in classroom, day two conducting practical exercises in the water). Top trainees would get the opportunity to train further in New England. Since 2012, the IWC had trained over 1200 trainees from 34 different countries. It had delivered trainings in Norway and Greenland, and had one planned for Iceland until plans were disrupted by COVID-19. Mr Mattila also noted an abundance of interest in training from Latin America. A training session

had been conducted in Tonga in 2014 thanks to SPREP and IFAW. Criteria for prioritizing training included human safety, conservation value, animal welfare, socio-economic impact, national support, and any added impact. Citing a training in Brazil, which saw 21 different parties band together, Mr Mattila suggested that broad community support was possible.

### 3.1.3. Fish Aggregating Devices - Extent and Management in the Region

42. Maurice Brownjohn (Invited Expert) spoke on behalf of the PNA (Parties to the Nauru Agreement), representing the fishing interests of the eight Melanesian countries whose EEZs totalling 14.3 million km<sup>2</sup> contained the great majority of the tuna stock of the Pacific Islands region. He noted that the Western Central Pacific delivered about 50 per cent of global catch of tropical tunas, and recalled that unlike other RFMOs, this region was not FAD (Fish Aggregating Device)-dependent.
43. PNA members managed fisheries through implementation arrangements and effort control. Declared catch or catch numbers were not used, in order to minimize incentives to mis-declare. All vessels fishing in PNA waters were on their registry, and the organization maintained full coverage for logbooks and VMS tracking. Pre-COVID, PNA retained 100 per cent third party observer coverage on board the vessels, as well as 100 per cent observation for in-port transshipment and minimum harmonized conditions for operating. A current initiative made mandatory new expanded FAD log sheets, FAD registration and tracking, and banned FAD discards in PNA waters.
44. The Fisheries Information Management System (FIMS) included the capacity to track and provide FAD proximity alerts for when FADs approached coastal waters and reefs, and when vessels and FADs came into close proximity. A range of PNA-driven conservation and management measures had been approved by the Western Central Pacific Fisheries Commission (WCPFC), including mitigation and safe release of incidental catch (see [CMS/PIC/MOS4/Inf.3.1.3a](#)).
45. While some man-made FADs were anchored near the shore, the great majority were deployed from fishing vessels to drift offshore. In the 1990s, FADs were tracked with VHF radio buoys, which meant that only a limited number could be managed due to the range limit. However, these had been progressively replaced with satellite/GPS buoys. The last decade had seen the emergence of sonar-capable satellite buoys, which enables the assessment of the size and composition of tuna schools underneath each buoy from thousands of kilometres away. This has allowed for 'cherry-picking', where a fleet might manage 300 FADs per boat (Commission limit), though previously up to 800 per boat had been reported.
46. Every FAD buoy had a unique ID. Very little was known about how FADs worked or their impact on the stocks of tuna and other species, ghost fishing, or Vulnerable Marine Ecosystems. Typically, buoys report to a satellite, which reports to the FIMS, which then goes to SPC for analysis and to PNA for management.
47. Mr Brownjohn stated that whale interactions in a purse seine fishery were typically recorded as the lowest of any gear type, lower than longlines, trawls, gillnets and trap fisheries. Globally, whale entanglement was relatively common with buoy lines on static gear such as inshore nets and traps. Based on decades of observer reports and SPC analysis, he concluded that whale interactions with drifting or anchored FADs in WCPFC/PNA waters were totally unknown. He stated that mortalities of cetaceans in purse seine net interactions (encirclement) were extremely rare in WCPFC. Targeting cetaceans and whale sharks was an offence in WCPFC, unlike in IATTC, where dolphin targeting was permitted.
48. Mr Brownjohn concluded that for Pacific people in the PNA sustainability was not an option, but a matter of survival. He was also of the view that there were far greater risks for marine migratory species in the Pacific Islands region than well-managed fishing, for example deep-sea mining.

### 3.1.4. Important Marine Mammal Areas (IMMAs)

49. Rochelle Constantine (IUCN SSC-SCPA Marine Mammal Protected Areas Task Force) introduced IMMAs as a global IUCN initiative that was established to delineate a discrete number of habitats which had the potential to be delineated and managed for conservation of marine mammals. Marine mammals had not been commonly included in MPA discussions in the past since many of them were migratory species that moved across large distances, and it was therefore hard to create MPAs for them. They were, however, important indicators to support the identification of areas important for marine mammals and the design of corresponding spatial protection measures. IMMAs could be useful in the design of conservation plans because umbrella species like cetaceans encompassed the whole ecosystem. They were also flagship species that can be powerful politically and publicly.
50. The Marine Mammal Task Force was a group of experts who convened workshops with local experts being given the opportunity to make a case for the designation of an IMMA, candidate IMMA or Aoi (area of interest). IMMAs were designed to inform governments and others in their management decisions around implementation of protection (e.g. regulation of activities, policy, future focused decisions). To date, eight IMMA workshops had taken place globally. SPREP hosted the second of these workshops in April 2017, to review possible IMMAs in the Pacific Islands region. There were four criteria for the proposal of an IMMA, only one of which was needed for a viable proposal: vulnerability, distribution and abundance, key life cycle activities, or special attributes. The importance of marine mammals for tourism and culture was acknowledged in this process.
51. Ms Constantine noted that the Pacific was a very complex, vast and species-rich region, with most areas containing 15+ known species. To date, there were 20 IMMAs, 4 candidate IMMAs and 20 Aois designated in the Pacific Islands region. Various action plans and agreements were in place or under development to ensure protection of such areas.
52. Ms Constantine further noted that IMMA proposals were to be reviewed every 10 years. She encouraged States and Territories to take account of this timeframe moving forward, and suggested that simple, publicly accessible data collection by Member States would go a long way to enhance cetacean conservation in the region.

### 3.1.5. Marine Tourism

53. Teisa Fifita (Tonga) stated that whale-watching was one of Tonga's key tourist attractions and dated back to the 1980s. It was currently an important contributor to the Tongan economy. She recalled that prior to the COVID outbreak, the Tongan Ministry of Tourism had submitted a policy paper to the Government to limit the number of licenses available for WW operators.
54. Given the importance of whale watching to the economy, conservation efforts were needed to ensure sustainable practices. To this end, the Ministry had issued a variety of rules which all whale watching operators must follow, which included, *inter alia*, a maximum of seven hours of watching and swimming activities per day, the submission of a full report at the end of the season, and a ban on whale activities falling outside of the 1 July – 30 November season.
55. The first-ever enforcement actions for whale activities commenced in 2017 in Vava'u and Tongatapu. In 2018, enforcement became mandatory and was extended to cover all island territories. Every morning at 6 am government officials took note of vessels, passenger headcount, skipper, and guides; there was also a sea patrol once or twice per week. This has resulted in a decline in non-compliance, and there are procedures for non-compliance. Ms Fifita noted that the Ministry of Tourism recognized the importance of capacity building activities. It hosted a Skipper and Whale Guide training in 2019. Training was carried out on all islands but was concentrated in Tongatapu.

56. Tonga was looking forward to finalizing two pieces of legislation related to whale-watching activities before the end of 2021. It also planned to submit a policy decision to limit the number of whale licence holders. Tonga was also looking forward to finalizing its own training materials, which were due to be launched in September 2021. In addition, Tonga had been looking to introduce a GIS/Vessel Monitoring System to all whale watching vessels, but this project was put on hold due to cost constraints. Cheaper options were being explored.
57. Recognising the importance of community involvement, Tonga was planning a 'Welcoming of the Whale' event or an annual whale event for awareness-raising at the local level. It would also work closely with the Ministry of Fisheries and Environment Department to secure a no-go zone in Vava'u waters, to provide a refuge area for mothers and calves.
58. Given the importance of maintaining a good working relationship with operators, Tonga aims to build a closer relationship through meetings and partnerships on events and promotions.

### 3.1.6. Strandings

#### Strandings of Oceania

59. Hannah Hendriks (SPREP) noted that strandings were a good opportunity to collect data, especially in remote and inaccessible locations, and particularly for rare species such as beaked whales that were mainly found offshore and were deep-diving, spending much of their lives submerged. Understanding causes of death for stranded whales would enhance understanding of the threats to cetacean species and populations.
60. In 2020, SPREP had worked with WildMe to transfer its old data from the apod strandings database to a modern platform called Flukebook. Though the website was designed for photo-identification catalogues rather than strandings data, the platform serves as a basic data record until a more purpose-built option can be developed.
61. Ms Hendriks pointed out that a stranding form providing guidance on recording stranding data in the field was available for download and printing from the [SPREP website](#). Data could be submitted via Flukebook with a login provided by SPREP. Alternatively, the data sheet could be sent directly to SPREP, who would add it to Flukebook on behalf of the submitter. She explained that data could be added in bulk, and that the Flukebook website was available in both French and English. Data could be viewed on Flukebook with a login. Alternatively, the data could be viewed on the Pacific Islands Protected Areas Portal of the [SPREP website](#).
62. Since 1991, 76 stranding events had been recorded. Most data currently originated from New Caledonia, though data from Samoa, Tonga, French Polynesia and Vanuatu was also available. Since Flukebook also provided simple data analyses, the data could be made more informative once more information had been put into the database.
63. She signalled SPREP's wish to complete the dataset and encouraged Signatory States to get in touch with SPREP to add to the database and help enhance understanding of strandings in the region.

#### IWC Strandings Initiative

64. Karen Stockin (Invited Expert) noted that in 2016, the IWC endorsed recommendations on strandings developed at the IWC Scientific Committee and the Whale Killing Methods and Welfare Issues Working Group. This was a result of considerations brought forward during two international IWC workshops in 2015 and 2016.
65. The [Strandings Initiative](#) (SI) was launched in 2016. It consisted of a governance body (Standing Working Group on Strandings), a Strandings Coordinator, and a Strandings Expert Panel with 23 members. The SI aimed to lead strategic development in strandings response

and investigation and to support capacity building in emergency response. Specifically, it also aimed to identify and develop advice on strandings response, improving current best practices on sampling and scientific investigations, and advertising funding opportunities. As a lot of the work would be front-facing, there was a need to make sure that those directly involved in the strandings response had direct access to relevant information.

66. Main activities of the SI included, inter alia, in-country trainings at the request of member governments, response to cetacean events as requested, standardization of protocols/procedures and for emergency responses, including the identification of best practices. A large proportion of time was invested in training and capacity building activities. Some activities had been undertaken across different international parties. For instance, the SI was working with the International Association for Aquatic Animal Medicine to look at in-person training for stranding response and diagnostic sampling in South Africa.
67. Some of the biggest ongoing work was about looking at big-picture dilemmas and regulations to be resolved in the context of understanding emerging disease and pathogens – for example, finding ways for developed countries to support pathological screening in small island developing states. IWC was also committed to strengthening international cooperation, including through the IUCN wildlife health specialist group and CITES, which was especially urgent due to the growing interconnected interest in strandings among many platforms and organisations. The IWC was one of the key leaders in the Global Stranding Network, which was part of the Barcelona declaration made at the 2019 World Marine Mammal Conference.
68. The IWC recognised that there is a need for good resources for different tiers and contexts of strandings, and there are a number of freely available shared resources available at IWC and Global Stranding Network, including training materials, e.g. [Harmonizing Global Stranding Response \(Gulland and Stockin 2020\)](#).

## Discussion

69. The Chair noted an offer from France to provide disentanglement training and capacity-building support to French Territories, and encouraged engagement with French counterparts if any Signatories wished to do so.
70. Karen Baird (SPREP) asked what the process for finding contacts and going through process of getting emergency help looked like. Ms Stockin explained that help could be requested directly from IWC through the Strandings Network and through the Chair of IWC's Strandings Initiative (Sandro Mazzariol). He was the point of contact, and request would filter down to the regional coordinators. There was a list of different contacts within each country on the IWC website, though to date the only Pacific country with a contact was New Caledonia. Ms Stockin invited any country present today at the meeting with further information to please engage with IWC.
71. Lindsay Porter (IWC Scientific Committee) said she and Ms Stockin were in time zones +10 UTC and +13 UTC, which meant that they tended to coordinate matters occurring in the Pacific Islands. Ms Porter requested that those interested in joining the Strandings Expert Panel reach out to her or Ms Stockin, as they were eager to increase representation from the Pacific Islands region.
72. Ms Baird recalled that necropsy training and the transport of specimens for analysis are areas of interest for countries, and asked how the distribution of samples could be facilitated. Ms Stockin responded that in the context of IWC, the Strandings Initiative always welcomed opportunities to support training activities. On the transboundary issue, IWC didn't necessarily have capacity to carry out often urgent diagnostic tests – this was an ongoing issue at the international level between IWC and many other international organisations.

73. Mr Donoghue said that current travel restrictions made it difficult for people from the PI to come to expert training in different places. Making information available in a virtual fashion was crucial. Additional challenges included reaching people in the countries not represented at the meeting, and streamlining sampling. Ms Stockin noted the IWC had had to move into a virtual space. IFAW, who was linked with a lot of the work IWC did on strandings, had an online training toolkit on how to conduct live and post-mortem examinations. There was a range of materials available, and Ms Stockin would be pleased to work with SPREP to facilitate full availability of tools and resources for the Pacific Islands.

### 3.1.7. Aquatic Wild Meat

74. Scott Baker (SPWRC) explained that his presentation focused on drive hunts, excluding live captures. He outlined the long history of traditional drive-hunting of dolphins in the Solomon Islands, particularly in Malaita, which had been driven by the use of dolphin teeth (for traditional currency, for example) and, more recently, the trading and selling of meat for human consumption. This was a tradition in which local community members cooperated, banging together large stones underwater to create a noise that drives the dolphins into shallow water, where they are captured and slaughtered. Dolphin hunts used to be widely spaced in time, but the scale of hunting increased dramatically in the 1960s. By the 1990s only the village of Fanalei appeared to be hunting on a regular basis. In 2010, a MOU was signed between some of the hunting villages and the NGO Earth Island Institute (EII). Hunting was stopped in exchange for a remittance.
75. As the SPWRC was preparing for its meeting in early 2013, a number of media reports on the resumption of hunting emerged, attributed to a breakdown in the MOU agreement. SPWRC's concern over the alarming number of reported hunts was related not only to the biological sustainability of the hunt but also to animal welfare issues. In response to the urgent need to document the hunt, Marc Oremus arranged to go to Fanalei in 2013 and confirmed the accuracy of media reports. Through molecular analysis of bones from captured dolphins, researchers were able to connect traditional names of dolphins to the species IDs. Past and present catch records indicated that the take in 2013 was higher than average but not exceptional.
76. Over the last 10 years, there had been a rapid increase in the value of each tooth. A tooth had only been worth between 0.5 and 1 Solomon Islands dollar(s) in 1964 and 2004 respectively, but the price had risen to almost 5 Solomon Islands dollars by 2013. One interpretation of this trend was that the moratorium created a shortage of this culturally valuable artifact.
77. Mr Baker reported that to the hunters, the agreement with EII represented a brief lapse in the history of hunting. According to the hunters, the resumption of hunting brought back peace to the community, as stopping it had created tensions in the village. Consequently, the communities were not receptive to the idea of introducing a hunting quota but saw the value of collecting scientific data to assess sustainability and thus increase the probability of continued hunts in the future.
78. Mr Baker pointed to an urgent need to improve the monitoring of catches, such as through systematic record-keeping and verification. Samples should be collected and archived to confirm species identification. Surveys of local waters were also needed to estimate dolphin abundance. He noted that these recommendations were consistent with the Whale and Dolphin Action Plan. However, he also recognized that these recommendations did not address animal and human welfare issues. Regardless, further reductions in catches might address both concerns by creating alternative value, such as dolphin-watching. Such programmes would take advantage of local knowledge and provide a more sustainable future not only for the dolphins but also for the hunters themselves.
79. Karen Baird (SPREP) asked whether Mr Baker or Mr Oremus noticed, in discussions with locals, any concerns about the sustainability of what they were doing, or whether they assumed

the continued abundance of dolphin populations. Mr Baker replied that it was clear that they were concerned about the long-term sustainability of the hunt, as they had experienced changes in practices due to loss of species in the past.

### 3.1.8. Deep Sea Mining

80. Simon Childerhouse (Invited Expert) said that Deep Sea Mining (DSM) was a relatively new technology, and hence one that was poorly understood, particularly in comparison to the volume of information available for similar activities on land. He noted that there were currently no recognised international best practice guidelines for DSM or for mitigating environmental impacts. Regulators, therefore, should apply the precautionary approach in the absence of any empirical data. The regulators made their decisions independently.
81. There were three main components in DSM: surface (where processing is done), midwater (where sub-surface material is pumped to the surface for processing and waste products returned), and seafloor (mining tools, crawler). This presentation focused on potential impacts associated with the midwater and seafloor components of DSM operations.
82. Mr Childerhouse outlined the potential effects of DSM. He noted a caveat, however, that it was difficult to generalize, because effects varied across areas and species subject to a variety of factors. The potential effects of DSM included:
- **Potential environmental effects:** physical destruction; injury or capture of marine mammals in equipment; sediment smothering; toxic effects from sedimentation (some materials discarded); loss or alteration of habitats; noise; light pollution (and how that might influence foraging and prey). In the water column: displacement and/or mortality of species (e.g. fish); the sediment plume could lead to reduced foraging success for visual predators; seabed toxins could accumulate in food waste; potential physiological and/or reproductive impacts; oxygen depletion; noise; entanglement risk.
  - **Potential ecological effects:** the impact may not be direct, but the influence of DSM could potentially be felt along the food chain. At present, there was a poor understanding of likely ecological effects of DSM; most studies to date had relied on general ecological theory rather than empirical data. Few locations would have sufficient data, as most potential mining sites were difficult to reach and expensive to undertake research in. In his experience, very little baseline data had been collected.
  - **Potential physiological effects:** marine mammals were normally good at biomagnifying toxins. Therefore, seabed toxins released from DSM might accumulate in food webs and negatively impact marine mammals. A worst-case scenario could include mortality and reduced reproductive performance, both of which were difficult to estimate and monitor and required baseline and long-term studies. That said, the level of DSM's effect was a direct function of the material discharged, which would vary depending on the location and on what minerals were being targeted. Radioactive compounds might also be released. These compounds were likely to be a by-product of many mining programmes, as they were not generally sorted and removed from collected deep-sea material.
  - **Potential noise effects:** mining in excess of 1000m required operators to have pumps and processing units, which likely rendered operations loud. The magnitude and nature of the operations would vary, but it would be important to understand what form of mining was employed to estimate the likely impacts of noise. Noise sources might include pumps, machinery, surface vessels and associated transport vessels. Impacts would vary by species, sex, behavioural state and even the time of the year; different frequencies would also affect species differently. Likely effects included displacement, and temporary or permanent hearing threshold shifts for animals that were too close to the operations.
83. Mr Childerhouse pointed out that one of the biggest issues relating to DSM was a range of significant knowledge gaps. The understanding of the real impacts of DSM was limited and primarily speculative. A range of mitigation strategies could be proposed, but their potential to



reduce impacts was hard to measure and estimate. In many locations, biological environments were poorly understood. Spatial and seasonal distribution and abundance were also poorly understood and would be hard to estimate/guess even the location of future operations were known. He noted the importance of location and behavioural state for the assessment of impacts (e.g. whether cetaceans are likely to be feeding, on breeding sites or migratory corridors).

84. Mr Childerhouse concluded that DSM was likely to result in environmental, ecological and physiological effects on cetaceans, though the long-term cumulative effects would be very difficult to assess. Whilst impacts were possible and likely, their severity could vary from negligible (e.g. site with no marine mammal presence) to significant.

## Discussion

85. Narelle Montgomery (Australia) noted that Australia has not had much DSM as of yet. She asked whether there were indications that DSM was increasing in the Pacific, or whether it already is something significant. Mr Childerhouse stated that he was aware that consents and interests had been increasing over time. Formal applications would be coming soon in his opinion, so there was a need to carefully consider how best to manage DSM.
86. Ms Montgomery wondered what DSM operations were targeting. Mr Childerhouse responded that manganese was a big target around the South Pacific area, but there was a range of materials that different groups were targeting.
87. Ms Constantine noted that a challenge posed by DSM for all nations, and the Pacific in particular, was that there were unsolicited approaches by companies to conduct operations. Dialogue was often dominated by a single side (the company). She wondered whether there was any place compiling and making available resources explaining what consequences were from a conservation standpoint. She also pointed out that this was a way IMMAs could be useful, since they allowed regulators to identify areas where impacts on cetaceans were likely to be significant.
88. Ms Baird noted that making such material readily accessible was a good suggestion. Seabed mining in international waters was managed by the International Seabed Authority (ISA), which had a website with lots of information, but much of it not publicly available. Accordingly, there was a real issue with regards to transparency, which PI countries might wish to flag. If they were going to open the oceans to DSM, there needed to be balanced information available for countries to make decisions on whether a project should go ahead. SPREP would be developing a knowledge resource in their virtual library, and she would investigate whether one that specifically relates to DSM could be included, so that countries could go there to access further information. She agreed with Mr Childerhouse that given the overall lack of knowledge, it was important that countries took a precautionary approach.
89. Mr Childerhouse added that the ISA had released draft standards and guidelines for DSM, which were currently open for comment. The general feeling was that they set quite low environmental standards. Since any operations would proceed under those standards and guidelines, once adopted, he urged countries of the region to engage with the consultation process and ensure adequate environmental provisions were included. New Zealand had considered two consent operations, both applications had been declined for mainly environmental and social reasons. This might provide some lessons as to how to evaluate pros and cons of an application.
90. Mr Donoghue noted that the ISA was finally accelerating their work. Every company that wanted to operate in international waters needed to have a contracting government partner. Nauru, Tonga, and Cook Islands were all SPREP contracting members who were partners to various proposals. Nauru had just called a two-year trigger, which essentially meant that baseline surveys had to be completed within two years because the provisions of the

agreements allow mining to start then. Mr Donoghue said there were several PI governments who supported DSM in principle and others who did not, so this was a divisive issue. The Nautilus Minerals prospect, Solwara-1, in the Bismark Sea in Papua New Guinea was an example of a DSM project that did not go ahead on the grounds of the area being a well-known sperm whale habitat, a species which as a deep-diver would be particularly vulnerable.

91. The other side of the argument was that a lot of targeted elements/materials were currently mined onshore, and the mining process could be very damaging. The target metals for DSM were used for electric car batteries, mobile phone batteries and other important things, some needed to address climate change. So it was tricky. Andrew Chin had recently published a comprehensive review paper (see [CMS/PIC/MOU4/Inf.3.1.8](#)). For more information, people could go to the companies themselves (such as Deep Green), but also to the DSCC (Deep Sea Conservation Coalition). Mr Donoghue said that it was a difficult ethical dilemma, but the bottom line was that the impacts on cetaceans were unknown, and he argued that studies of cetaceans needed to be detailed and long-term before any mining should occur.
92. Margi Prideaux (Wild Migration) echoed previous comments about developing a space where there are shared resources that countries were able to draw on when faced with DSM. One of those should be the *CMS Family Guidelines on Environmental Impact Assessments (EIA) for Marine Noise-generating Activities*, which had a section on mining activities (albeit not exclusively deep-sea), providing a good framework for a government official to push on the company to provide an appropriate EIA. Though only related to noise, it would at least be one part of the puzzle.
93. Mr Childerhouse summarized by saying that there were a range of views in the PI region, but one thing could agree on was to have a set of standards for EIA. This would provide a useful baseline for countries.

### 3.1.9. Climate Change

94. Viv Tulloch (Invited Expert) explained the use of ecosystem models (Model of Intermediate Complexity for Ecosystem Assessments – MICE) to assess the likely future impacts of climate change to cetaceans in the Pacific Islands region.
95. The model included historical whale catches to evaluate the impact of historical whaling on population numbers, and predicted scenarios for ocean warming and productivity, most importantly for krill, the primary food source for large baleen whales in the Pacific Islands. The model examined two separate seasonal time stamps and two spatial sectors (Atlantic/Indian Ocean and the Pacific Ocean). The model predicted that krill stocks would peak around the present day, followed by rapid declines in some latitudes, particularly 50 and 60 degrees South, because temperatures would increase beyond their threshold for survival.
96. Stronger impacts on whale populations were predicted in the Atlantic than the Pacific. Overall, the model predicted the biggest changes to blue whales and fin whales. Humpback populations were projected to decline in the Atlantic, but predictions did not show massive declines in the Pacific. There was no consistent recovery expected for southern right whales in the Pacific. Increases in sea surface temperatures in the Pacific were predicted to result in whale population declines in the 50–60-degree latitude band, affecting Southern right whales, humpback whales and fin whales feeding predominantly in mid-latitude bands in the Southern Hemisphere. In the Pacific, blue, fin, and southern right whales were most vulnerable.
97. Ms Tulloch reiterated that the strategic model could be used to inform management, as it linked how climate change would affect krill to how that would impact predators. She highlighted the need for an improved understanding of the responses of whales and their prey to climate change and other future stressors and hoped to work on this in the future. Future stressors might include a resumption of whaling, expanding krill fisheries to meet demand for krill oil, entanglements, and pollution. Ms Tulloch pointed to the need to keep expanding on these

models to make sure of dynamic representation of these changes, which could inform tactical and localized management.

## Discussion

98. Ms Baird noted that Antarctica seems to be a long way away from the Pacific Islands region, but baleen whales were migratory and came to this region to breed. The impact of krill loss in the Antarctic could be quite devastating for some species. She noted the potential impact of temperature changes and the potential for breeding whales to move to cooler climates to breed, so this could have potentially significant effects on whale biodiversity in the region. From her point of view, it was quite alarming, and she urged all to be aware of this when talking about climate change and fisheries in international forums. SPREP would be open to hearing suggestions about how to respond from the Pacific.
99. Ms Constantine said that a very helpful recent paper by Solène Derville<sup>4</sup> also predicted a shift in breeding grounds for humpback whales. The whales had a thermal maximum and could overheat. Regions like Samoa in particular might not be ideal habitats for humpback whales anymore; new areas, such as the Kermadec Islands, might become breeding grounds in the future. There would be an interesting mixture of effects, because numbers should increase due to absence of hunting, but whales were also being displaced from former habitats which could trigger a potential decrease. Climate change would impact the Pacific region in many ways.
100. Ms Constantine led a partnership project on the connectivity of humpback whales in the Southern Ocean region. They were completing an analysis of all the whale tracks from the entire Southern Ocean region, looking at differences in habitats/feeding grounds and analysing them against different climate change scenarios. She would make this available in due course.
101. Alfred Ralifo (WWF) highlighted that 2021 and 2022 were important years with regards to a number of international policies and agreements to be discussed at COPs for biodiversity (CBD) and climate change (UNFCCC). For Pacific Island countries, one of the most important things to consider as they prepared for negotiations was the bigger picture and connectivity (i.e. multiple threats in the ocean ecosystems). Mr Ralifo said that there was a need to ensure synergies going forward and to speak as one 'Pacific Voice'. WWF was willing to provide support and looked forward to working with PI countries on cetaceans and other important marine species.

### **3.2. Whale and Dolphin Action Plan 2022-2026**

102. In the beginning of Day 2 of the Meeting, the Chair welcomed participants back to the meeting. Melanie Virtue reported that there had been sixty attendees during Day One, which was the highest-ever number for a CMS PIC MOU meeting, and noted that virtual meetings had the advantage of encouraging more participants. She asked whether there were any objections to making recordings of the meeting available, and if not, the Secretariat would investigate how this could be done. No objections were raised, and the Chair asked SPREP to check with presenters whether they would be willing to have their presentations made available.
103. Ms Virtue explained that the Pacific Cetaceans MOU and the SPREP Whale and Dolphin Action Plan (WDAP) provided the general substantive framework for action within the MOU agreement area. Following the intent of the MOU as established in September 2006 and the directions of the First Meeting of Signatories in March 2007, it was appropriate to consider the adoption of the revised WDAP as the Action Plan for the PIC MOU (to be attached as Annex 2 to the PIC MOU). This revised Action Plan, which had been discussed in detail over the course of the SPREP workshops in the days prior to this meeting, would be presented to the

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<sup>4</sup> Derville, S., Torres, L.G., Albertson, R., Andrews, O., Baker, C.S., Carzon, P., Constantine, R., Donoghue, M., Dutheil, C., Gannier, A. and Oremus, M. (2019) 'Whales in warming water: Assessing breeding habitat diversity and adaptability in Oceania's changing climate'. *Global Change Biology*, 25(4), pp.1466-1481. <https://doi.org/10.1111/gcb.14563>

31<sup>st</sup> SPREP Meeting in 2022 for adoption. Then the Chair invited Karen Baird (SPREP) to present the Draft SPREP WDAP 2022-2026.

104. Ms Baird thanked the New Zealand Department of Conservation and in particular acknowledged the work by Hannah Hendriks in pulling the Action Plans together. She noted that like the other SPREP migratory marine species plans, the Whale and Dolphin Action Plan (WDAP) must be read in conjunction with the Overview, which applied to all five Action Plans in the Pacific Islands Regional Marine Species Programme 2022-2026 and had nine themes relevant to all migratory marine species in the Pacific Islands. SPREP would establish a knowledge resource to facilitate information sharing and strengthen links to help with implementation of the Action Plan.
105. Some of the issues that were relevant to the WDAP were common across all species Action Plans, e.g. fisheries bycatch, FADs, marine debris, ecotourism, and capacity-building. Ms Baird noted that there might be opportunities for scholarships to promote marine conservation initiatives through the University of Bergen, the Lui Bell Scholarship Fund and the Sue Tai Ocean Fellowship. She noted that cultural knowledge and understanding needed to be a central part of assessing any traditional hunting of cetaceans in the region.
106. Climate change was a new priority theme in the WDAP, while the other themes were similar to those in former Action Plans but had been modified in the light of recent information. All themes in the SPREP WDAP had actions and indicators. The Chair thanked Ms Baird for the report and invited questions.

### Discussion

107. Ms Montgomery thanked SPREP for their work on reviewing and developing new multi-species Action Plans and recalled that she had been fortunate to participate in all their species-specific sessions, where discussions had been informative, valuable, and facilitated the sharing of information between lots of interested parties in the region.
108. Australia expressed appreciation for the opportunity to provide additional written comments by 17 August 2021, and signalled its intention to take advantage of the opportunity and provide its feedback in writing. Ms Montgomery enquired as to the scope of the Action Plan, as Australia was a signatory to the MOU, yet the Action Plan seems to focus on Pacific Island countries, noting that Australia was listed in some maps and tables and not in others. Ms Baird clarified that the Action Plan was indeed directed at Pacific Island countries and territories, with New Zealand and Australia included in some tables because most of the species discussed were migratory, so they might breed in these two countries and migrate to other places. It was important for both Pacific Island countries and Australia and New Zealand to understand this Pacific linkage. The intention, however, was that this plan would not be for Australia and New Zealand to implement but their assistance and support would be much appreciated.
109. Ms Montgomery further enquired as to whether the outlined actions were sufficiently detailed or targeted enough for PIC Signatories to the MOU to define their priority actions within a certain time frame (e.g. 12 months/2 years). She cited previous experience using programmes of work to prioritise actions, and acknowledged that the time frames currently outlined in the Plan might give an indication of what to prioritise. She would like to hear from other Signatories whether they wanted to have a clearer prioritization, a point echoed by Ms Baird.
110. The Chair acknowledged this valid point to take on board as the Action Plan was finalised, especially since the Action Plan could be used as a tool to leverage funding. Partners should be able to see what Signatory priorities were in order to align their own priorities for actions.
111. Dave Lundquist (New Zealand) noted that New Zealand had some of the same questions and hoped to provide some written comments over the next few weeks, which might be useful for other Signatories in terms of considering priorities. He acknowledged the efforts that went into

developing the current Action Plan and signalled their intention to support the adoption of the Action Plan as the Action Plan for the PIC MOU once it was finalized.

112. As successful implementation depended on local capacity-building, New Zealand welcomed the Plan's focus on capacity building and collaboration. In this regard, New Zealand could share information from its existing work programmes (e.g. strandings, disentanglement, bycatch mitigation) and encouraged other Signatories to make similar resources available. New Zealand had been pleased to support this work through the secondment of Hannah Hendriks from the Department of Conservation, who had been central to developing this Plan and the other marine species action plans.
113. Margi Prideaux (Wild Migration) provided some historical context, explaining that the intent of having the SPREP WDAP Action Plan apply to the PIC MOU was that the sentiment from the Pacific region was that the Pacific Islands particularly wanted the Action Plan to resonate with Pacific Island visions. At the first MOS, Australia and New Zealand had agreed with that as the direction of the MOU, and therefore agreed with the adoption of the Whale and Dolphin Action Plan into the MOU. The intention was that it would not apply to Australia's and New Zealand's domestic priorities, but rather fell within the scope of the Pacific Islands region, the EEZ, and some high seas initiatives that were relevant for the region. She noted that the question of prioritization had also been addressed in previous meetings. The Technical Advisory Group (TAG) had then been tasked with creating prioritization. Signatories would be drivers of priorities moving forward.
114. Olive Andrews (Conservation International) congratulated SPREP for their work on the Plan and welcomed capacity building elements of the Plan and advised that the University of Auckland, Institute of Marine Science, had partnered with Conservation International to develop a new Master's degree in marine conservation which launched last year. Acknowledging that a Master's degree is a time commitment, Ms Andrews noted that remote short courses of five days covering key points could also be offered. This might complement some options for capacity-building that had already been identified. The Chair acknowledged this great opportunity provided by the University of Auckland and was looking forward to receiving more information about it in due course.
115. Alfred Ralifo (WWF) congratulated SPREP and CMS Secretariats for their work. He noted that WWF would be submitting comments within the next few days. He further indicated that WWF would consider widening its engagement beyond the tourist industry by consulting with other stakeholders (e.g. industry and tuna fisheries). He further noted that the South Pacific Tourism Organisation was also doing work on sustainable tourism, and could potentially be encouraged to become engaged. By working directly with communities, WWF was also considering other species found in fishing grounds and trying to integrate them in community and national resource management plans. The Chair thanked all speakers for their contributions.
116. Ms Baird explained that MOU Signatories, in their capacity as SPREP Members, had full opportunity to comment on and provide input to the draft Regional Marine Species Programme. It was expected that the final documents would become available well in advance of the 31<sup>st</sup> SPREP Meeting in 2022, where they would be proposed for adoption. In line with previous practice, it was agreed that the Multi-Species and Whale and Dolphin Action Plans of the Pacific Islands Regional Marine Species Programme 2022-2026 would then be adopted also for the MOU. Ms Virtue said that in line with the requirement in the MOU text that for any amendment, which the update of the WDAP technically was, consensus of all Signatories was necessary, the CMS Secretariat would inform all Signatories in writing and then, if no objections were received, prepare and circulate the customary amendment protocol.

## 4. Institutional Issues

### 4.1. National Reporting

117. Ms Virtue recalled that the PIC MOU has provisions for national reporting. Those who had been present at previous meetings would remember that they had gone through a long process of developing reporting formats and helping countries complete reports, but never really reached a successful conclusion on what a good reporting method was, without creating too much burden. She noted that in preparation for this MOS4 meeting, CMS and SPREP thought about what tools SPREP had that may be useful in helping us avoid developing a whole separate system for the MOU.
118. Lagi Reupena (SPREP) reported on the [SPREP Indicator Reporting Tool](#), which was part of the INFORM Project for systematic reporting and management of environmental data by SPREP Members. Its objective was to establish a network of national and regional databases for monitoring, evaluating, and analysing environmental information across the region to support environmental planning, forecasting, and reporting requirements at all levels. Making effective use of such planning tools faced several common challenges across the region regarding data storage and information sharing. As a response to these challenges, SPREP members had agreed on the INFORM project.
119. The Pacific Environment Portal (PER) contained all information from the region, and could be accessed through the [SPREP website](#). Under the PER, SPREP linked all the national environment data portals managed by countries. Data could also be shared between ministries.
120. The reporting tool was designed to alleviate the reporting burden by simplifying the reporting process and enabling indicators to be mapped across multiple reporting requirements. Its different functions included clearly defining an indicator, managing different reporting obligations, updating the status of each indicator and using that information to provide either indicator-based reports or summaries tailored to reporting obligations. An [online INFORM E-Learning course](#) was now available.

### Discussion

121. Ms Prideaux noted that the Pacific is uniquely burdened by many reporting requirements across different MEAs. She argued that this was a big problem given the limited departmental capacity available. She recalled that initially, the TAG provided additional backup to help with MOU reporting, but this had not worked particularly well for many reasons, primarily because it hadn't helped to alleviate pressure in terms of staff time required. Accordingly, she considered the idea to facilitate MOU reporting through existing SPREP mechanisms wise. She suggested that the CMS Secretariat work closely with SPREP to make sure the report that comes out would be useful to the CMS process and protocols. Recalling that the PIC MOU was part of the larger Convention, Margi Prideaux pointed to the importance of continued visibility of the PIC MOU in the Convention context. The Pacific was very active across all ocean issues, the only problem was that these activities were not necessarily visible.
122. Ms Montgomery agreed that reporting could be a huge burden, noting that Australia also struggled to report to a lot of forums it had signed up to. She concurred that using existing mechanisms was a good way forward. However, with regards to the Portal, she stated that Australia would probably not want to start inputting data into another system. An important question to consider was what exactly it was hoped to get out of the reporting. She recalled Australia's experience with some other instruments, where their national reports went above and beyond what was needed to manage its many layers of governments and different bureaucracies involved. She explained that Australia coordinated a roundtable to get all interested stakeholders/agencies together once a year to share experiences and recent work, highlighting any examples and best practices, and raised this format for consideration.

123. Alexandra Macdonald (New Zealand) agreed with Australia's comments and reiterated that workshops or roundtables could be a useful way to gather information. New Zealand wanted to ensure that any reporting had a clear purpose and was as focused as possible. Data from CMS, IWC, CITES and WCPFC should all be able to be simply included.

#### 4.2. Technical Advisory Group

124. Heidrun Frisch-Nwakanma (CMS Secretariat) presented CMS/PIC/MOS4/Doc.4 [Options for the Provision of Technical Advice](#) and recalled that the original idea had been to have a specific Technical Advisory Group (TAG) for the PIC MOU. In 2010, a call for nominations for the TAG had been issued, which saw nine nominations being presented to Signatories. In the end, the arrangements did not work out well, as nobody had been able to commit the necessary time to coordinate the TAG. Some activities had taken place but stopped when staff time became unavailable.
125. Since the need for technical advice to be provided to Signatories, the Secretariat had been considering options and was seeking the feedback of the Signatory States as to what would best serve their needs as outlined in the document, there were two basic options for a TAG. One was the re-establishment of a TAG specific for the PIC MOU as originally conceived. This would mean that the nine nominated members should be contacted to see if they were still available, and a chair would have to be nominated to coordinate this work. The second option was to consider making use of the Aquatic Mammals Working Group (AMWG) that currently existed as a subsidiary Working Group of the CMS Scientific Council. The AMWG was the biggest Working Group at CMS and had around 75 members from across the world. More members with specific regional expertise could be added upon request.

#### Discussion

126. Ms Prideaux urged Signatories, if they considered choosing the second option, to give thought as to how to create connections between the Pacific and the AMWG. As the AMWG had not necessarily been formed with Pacific expertise in mind, it might be necessary to ask the AMWG to recruit additional people with a Pacific viewpoint or knowledge base. It would be important to have a connection between that body and this meeting structure (e.g. via SPREP). She noted that the challenge for CMS would be to ensure that the TAG's Programme of Work finds its way into the Aquatic Mammal Programme of Work.
127. Ms Macdonald said that on balance, she thought it worth creating a separate Group for the PIC MOU. She noted that it would be beneficial to have members of the AMWG included as part of this TAG. She suggested that it would be useful to hear from those involved with the TAG in the past in order to learn more about its workings.
128. Ms Montgomery supported the comments from New Zealand. As the AMWG was a large body under CMS, they might provide useful expertise, but it was unclear how much expertise they had within the Pacific region. She enquired as to the amount of advice being asked from TAG, and asked for more details on its role and past work. She further said that the task of prioritizing actions within the Whale and Dolphin Action Plan should not be handled by the TAG but should be left to the Signatories, who were the ones on the ground with local/specialized knowledge.
129. Ms Frisch-Nwakanma explained that the TAG's report to the last MOS indicated it had mostly reacted to information requests from Signatories. PIC MOU Signatories could address their questions to the TAG in the future no matter which options would be chosen. The report on status of cetaceans in Pacific Island was also originally done in the context of the TAG. She pointed out that the TAG can be whatever Signatories need it to be.
130. Regarding the regional focus of the AMWG, Ms Frisch-Nwakanma reiterated that in case Signatories would choose to entrust the TAG function to the AMWG, it would be possible to



review membership and invite people with relevant expertise to join the WG. One of the TAG's roles was to create a linkage with the AMWG. A number of its activities also related to information transfer between CMS and the PIC MOU. Regardless of which option was chosen, the CMS Secretariat needed to understand from Signatories what they required in terms of technical support in order to then try to facilitate this.

131. Ms Prideaux explained that the TAG also worked closely with Signatories on the prioritization of the SPREP WDAP for the specific needs of the MOU, thereby performing an early prioritization function. There had been lots of bilateral discussion between Ms Miller, the TAG Coordinator at the time, and Signatories.
132. Ms Montgomery thanked both for providing useful context on the matter. She noted that since setting up a new TAG would require work in seeking nominations, she suggested that an option could be to try out whether the AMWG was able to respond to requests for advice once their membership had been reviewed to potentially capture a more regional focus. If this was not adequate, then we could go down the route of setting up again the PIC MOUs own TAG. She noted the comments on the past work of TAG in prioritizing, but thought it was something that Signatories could do together intersessionally, without having to set up a TAG to assist with this.
133. Ms Baird, referring to the issue of addressing the prioritization of WDAP, enquired as to whether this was something that could be asked of the CMS expert group. Ms Frisch-Nwakanma responded that if this was seen as a Signatory role, in which case getting information was mostly a coordination task, the AMWG or any other purely scientific group would probably not be best placed for this task.
134. Mr Donoghue suggested writing to all previously-nominated TAG members and ask if they are still interested. In addition, one could call for additional nominations, and invite some participation from AMWG in order to strengthen the relationship between Pacific and the broader CMS community.
135. Ms Prideaux clarified that the TAG wasn't strictly limited to science, noting that it was scientific and technical advisory body which meant that the pool of candidates were not only scientists but also policy and legal experts tasked with assisting with implementation, legislative support etc. This aligned with the desires expressed by Signatories, and any decision made now would also need to reflect their current needs.
136. Ms Virtue requested to hear from Signatories other than Australia and New Zealand, as Pacific Island Signatories would be the main beneficiaries of having the TAG.
137. Mr Ralifo also hoped that Pacific governments would make a contribution to discussions. As was the decade of ocean science, it would be a good opportunity to look at some ongoing scientific work. WWF saw some synergies between that and the work of TAG.
138. The Cook Islands expressed a preference for a separate TAG to ensure that there was a focus on regional solutions.
139. The Chair suggested an options paper be sent to Signatories that are not able to comment at this stage and asked the Secretariat to facilitate follow-up consultations, especially considering connection difficulties.

### 4.3 Funding

140. Jenny Renell (CMS Secretariat) presented a document on funding opportunities ([CMS/PIC/MOS/Doc.4.3/Rev.1](#)). She noted that essentially the document served as a guidance for funding opportunities in the Pacific Islands region, and listed various potential funding sources and detailed eligible countries. It also provided a short overview of

crowdfunding resources, such as donation platforms, and online marketing tools that countries might find useful in the fundraising or awareness-raising process. The document also included some online directories containing lists of funds to look through.

141. The document listed 17 governmental grant opportunities, 5 intergovernmental grant opportunities and 25 private grant opportunities. Ms Renell explained that the most up-to-date information on each upcoming funding opportunities could be found directly on the websites of the funding organizations, which were listed in the document. Crowdfunding and online marketing resources included information on different donation platforms, social marketing resources, technology options, and other resources.
142. Narelle Montgomery (Australia) thanked the Secretariat for providing this resource. She recalled that Australia had been able to give a voluntary contribution to CMS for implementation under the PIC MOU, relating directly to Australia's interest in getting prioritized actions.

## 5. The Way Forward

143. Ms Baird presented an overview of the key issues from the day 1 presentations that SPREP and the CMS Secretariat had compiled overnight. She encouraged participants to suggest any recommendations or actions arising from the presentation.

### Review of Pacific Cetacean Threats:

144. Although the Review was still in draft form, it suggested that the most pressing issue is bycatch. Significant gaps in knowledge had been identified, especially the significance of cetacean bycatch in longline and gillnet fisheries. Supporting the development of an IMMA and a management plan for the Kikori Delta would be a constructive way to address the dolphin entanglement problem.
145. Mr Ralifo said that despite the fact that WWF did not have funding related specifically to cetaceans, it has been able to integrate bycatch issues into its seafood work. WWF had been working with the Fijian longline fleet, had many resource materials to share, including a bycatch handbook that had been distributed through the Fiji Maritime College's training programme, in which WWF was involved.
146. Regarding the Kikori Delta, Ms Montgomery highlighted the urgent need to raise awareness within the communities undertaking the fishing activity, because they might not be aware of the implications of current levels of bycatch. Whilst IMMAs were a great concept and framework, they were not legally binding. Therefore, she wondered what effects an IMMA management plan would have for the actual communities in that region. She argued that, given the remote location, education and awareness raising would be more effective on the ground. Additionally, she expressed her hesitation to agree to any recommendations coming from this meeting without the chance to see and consider them in writing.
147. Ms Baird clarified that these were only suggestions for recommendations. In relation to the Kikori Delta, BIEM was working in the region and looking to support research into bycatch levels by students at the University of Papua New Guinea (UPNG). There was also ongoing work with the community to examine the community-fisheries relationship. Because dried swim-bladder was so valuable, she expressed scepticism as to whether a public awareness programme for the community would be adequate. She argued that a holistic approach would be needed, including both government and community. A management plan would bring all responsibilities together in a process to assess and mitigate impacts on dolphins and on the tradition of fishing, as well as to map a way forward.

148. Mr Donoghue recalled that trade in swim-bladders was largely illegal, and suggested that it might be worth approaching CITES regarding this issue, and noted the need to liaise with the PNG and Indonesian governments to see what they could do to reduce fishing pressures.
149. Nina Young (US) drew attention to the bycatch issue, stating that there had been lots of discussions about bycatch in tuna fisheries, which were heavily regulated through tuna fisheries management organisations. She acknowledged that there was enough information from observer coverage for the Meeting to consider steps forward in conservation and management measures, at least for the safe handling and release of marine mammals in longline fisheries. Guidelines were currently being produced, as the US was working with both the Scientific Committee and Commission of WCPFC and others. She noted that the biggest concern was the lack of data surrounding small-scale fisheries and associated bycatch. She proposed a recommendation to encourage the Signatories to adopt mandatory self-reporting of marine mammal bycatch in their commercial fishing enterprises. The CMS Secretariat drew the attention of participants to a new funding opportunity to support testing of bycatch reduction devices and techniques in the fisheries of developing countries<sup>5</sup>.

#### Disentanglement:

150. Ms Baird recalled that in one of breakout groups from WDAP, some Pacific Island countries put their hands up to indicate a need for training (PNG, Vanuatu, FP and NC). She also recalled that France had expressed an interest on day one of the meeting in coordinating training for French territories.

#### Fish Aggregating Devices:

151. Ms Baird recalled the high density of FADs and noted that one online report produced by Mr Brownjohn and PNA colleagues had shown that only 9% of the FADs deployed by fishing vessels were subsequently retrieved. This was also noted by France.
152. Ms Montgomery suggested that FADs might be a priority area for further investigations. She suggested that given that there was a WG set up under WCPFC working on FAD management in the region, a recommendation could be to try to work with WCPFC in the WG to ensure that issues of entanglement of marine mammals in FADs were adequately considered. Ms Baird agreed that this would be useful, especially if Signatories who were also members of WCPFC took this into account and use it in discussions around the issues of entanglement.

#### Important Marine Mammal Areas:

153. Ms Baird recalled that Ms Constantine's presentation mentioned that the region's IMMAs need to be reviewed in 2026. A further suggested recommendation was to therefore ask the Oceania IMMA Steering Group to advise Signatories on the information needed in candidate areas for 2026 review.

#### Strandings:

154. Ms Baird reiterated her call to Signatories to submit all their available data on strandings by logging in to the new SPREP database hosted on Flukebook. She also recalled that Fiji, Samoa, Vanuatu, and Papua New Guinea had indicated a desire for training in strandings management. She reiterated that the members of the IWC Strandings Expert Working Group were available any time for advice on emergency response procedures. SPREP would be willing to coordinate online stranding trainings, but she reminded Signatories that funding would be needed to provide suitable equipment for safely conducting necropsies. She stressed that further investigations need to be made into CITES rules for moving samples across

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<sup>5</sup> [www.bycatch.org/news/global-fund-marine-mammal-by-catch-solutions](http://www.bycatch.org/news/global-fund-marine-mammal-by-catch-solutions)

borders for analysis and undertook to investigate whether there are any exemptions to streamline the exchange of samples within the Pacific Islands region.

155. Ms Stockin again called for expressions of interest from Pacific Islands experts to be nominated for inclusion in the IWC Expert Working Group (EWG). If the names, emails and contact details were provided to her, she would present them to the EWG chair, Sandro Mazzariol. She also advised that Massey University conducted toxicological studies and would welcome the opportunity to involve Pacific Islanders.

#### Aquatic Wild Meat:

156. Ms Baird (SPREP) recalled discussions on approaches needed to focus on the issue of human-dolphin relationship in Malaita, Solomon Islands. Paying the community to stop hunting had been a failure, probably due to insufficient understanding of traditional cultural approaches. She suggested that it was timely to consider a study that had two components, namely a biological study, based on researching the surveys and genetic identification, in parallel with a socio-cultural study. She thought that there was potential for a PhD student from the Solomon Islands to get funding for studying this human/dolphin relationship.

#### Deep Sea Mining:

157. Ms Baird recalled that governments were divided on this issue, and that there was considerable uncertainty about the potential impacts and how they might be mitigated. She was especially concerned about the lack of information on cetaceans in the current Areas of Interest for DSM. She suggested that SPREP could coordinate comments from the region on the draft standards under development by the International Seabed Authority and EIA standards/guidelines. Signatories could ask CMS to coordinate global guidelines, and she suggested the inclusion of provisions regarding appropriate EIAs in ABNJ negotiations. She noted that Signatories could potentially support long term studies on cetaceans as a pre-condition before any mining activities were considered. DSM was on the agenda for the SPREP meeting coming up next month, and also a topic for the Environment Minister's high level Talanoa.
158. Ms Prideaux again recalled that the *CMS Family Guidelines on Environmental Impact Assessments for Marine Noise-generating Activities* contained sections relevant for mining activities as they related to noise pollution. They had already been published and could be used as an immediate resource for Signatories.
159. Rebecca Haughey (Australia) noted that Australia had just started developing a national survey guideline which would incorporate best practice survey monitoring for many species. They would be happy to share this once finalized.

#### Climate Change:

160. Ms Baird suggested some actions in response to Ms Tulloch's dire warnings on the impacts of a warming ocean on krill abundance and whale populations. These included taking up Ms Constantine's offer to share the results of her meta-analysis of humpback whale migratory routes, supporting MOU Signatories to continue to work towards a united Pacific Voice on whale conservation, and supporting surveys to estimate abundance and population trends of large whales, especially humpbacks, in coastal waters of Pacific Islands.
161. Mr Donoghue highlighted that there was no better method than regular abundance surveys, especially since the techniques involved were not very difficult and were available to researchers through training and support from dedicated labs from both Australia and New Zealand. He noted that this was also a good opportunity to use citizen science, from whale watchers but also from others, particularly for humpback whales, and stressed the need to support survey work.

### Other matters:

162. Ms Macdonald highlighted the importance of raising awareness of the PIC MOU at the national level and in other non-Signatory Range States. She expressed the hope that this meeting would catalyse further collaboration on conservation and encouraged Signatories to use the participants list for information sharing. She reiterated that it was important for MOU Signatories to draw connections to other international instruments relevant to cetaceans, e.g. WCPFC. She particularly expressed New Zealand's support for strong engagement between IWC and SPREP.
163. The Chair indicated that based on these discussions, the Secretariat would put together a list of recommendations for Signatories to consider (see Annex 1).

## **6. Any Other Business**

164. Nothing was raised.

## **7. Date and Venue of the Fifth Meeting of the Signatories**

165. Ms Virtue noted that Meetings of Signatories of the PIC MOU had been not as regular as the CMS Secretariat would have liked due to capacity issues. The CMS Secretariat would welcome feedback from Signatories about whether they would like to have more regular meetings, or whether any Signatories would offer to host meetings in the future.
166. Ms Montgomery noted that most MOUs tried to meet every few years. While face-to-face meetings were valuable, it would be prudent to look at the benefits of having more frequent virtual meetings. She thought that the sharing of information and different management approaches and the overview of threats discussed over the past two days had been particularly useful and suggested conducting more informal meetings in a virtual setting every 2 years. Ms Virtue welcomed the suggestion to hold informal sessions, noting that webinar-type meetings would be easier to organize. France, New Zealand and Samoa also expressed agreement.
167. Ms Prideaux felt that if the will was to go ahead with virtual meetings, it could be considered to have them every twelve months to maintain momentum and create more connection with the TAG.
168. Mr Donoghue suggested that the timing of meetings should take into account the SPREP meetings to ensure that a report from the meeting can be made available.
169. The Chair concluded that informal meetings every two years were preferred, with formal MOU meetings taking place less frequently.

## **8. Closure of the Meeting**

170. After the customary expressions of thanks, the Chair declared the meeting closed on 6 August 2021 at 15:20 WST.

## Annex 1:

### Recommendations and Action Points

#### from the 4<sup>th</sup> Meeting of Signatories to the CMS Memorandum of Understanding for the Conservation of Cetaceans and Their Habitats in the Pacific Islands Region

#### Review of Pacific Cetaceans and Threats Report

1. Signatories encouraged to support the development of a management plan for the Kikori Delta, which has been identified as an IMMA.
2. Signatories encouraged to adopt the mandatory self-reporting of marine mammal bycatch in their commercial fisheries.

#### Disentanglement

3. France to coordinate cetacean disentanglement training for French territories.

#### Fish Aggregating Devices

4. Signatories to support mandatory use of non-entangling and biodegradable FADs.
5. Signatories to investigate and support FAD retrieval requirements as part of FAD management.
6. Signatories encouraged to work with the Western and Central Pacific Fisheries Commission (WCPFC) to ensure that marine mammal entanglement issues are given adequate consideration in its work on FAD management in the region.

#### Important Marine Mammal Areas

7. Oceania IMMA coordinators to advise Signatories on information needs in candidate areas for 2026 review.

#### Strandings

8. Signatories, Range States and Territories to identify local experts to serve on the IWC strandings expert panel.
9. SPREP to include links for emergency stranding contacts and information on their website and in the Action Plan.
10. SPREP to liaise with the IWC and IFAW regarding possibilities for regional online training on strandings and future hands-on training when possible.
11. SPREP to liaise with New Zealand to organise a contact and a place for necropsy samples from the region to be sent for analysis. SPREP also to provide information on its website on how to manage strandings, including a link to IWC strandings initiative.
12. SPREP to facilitate further discussions with CITES Secretariat and the New Zealand government to facilitate movement of samples to NZ for analysis.

## Deep Sea Mining

13. It was agreed that there was a need to develop a comprehensive Environmental Impact Assessment (EIA) guidance, which considers the effects of deep-sea mining on cetaceans. CMS to consider raising the issue in global fora.
14. Signatories encouraged to follow the relevant guidance contained in the *CMS Family Guidelines on Environmental Impact Assessment for Marine Noise-generating Activities (Annex 1 of CMS Resolution 12.14 Adverse Impacts of Anthropogenic Noise on Cetaceans and Other Migratory Species)*.
15. Signatories encouraged to use the BBNJ negotiations to raise awareness of the potential impacts of deep-sea mining and call for support to long-term studies.
16. Signatories to support SPREP in summarising issues relating to deep-sea mining and cetaceans as background for the SPREP meeting.

## Climate Change

17. Rochelle Constantine (IUCN SSC-SCPA Marine Mammal Protected Areas Task Force) to provide results of her analysis of habitat use changes of humpback whales, when available, to the CMS Secretariat for circulation to Signatories.
18. Signatories to continue to work towards united Pacific voices in international negotiations and consider synergies with related issues, e.g. plastics and climate change.

## National Reporting

19. For the time being, reporting on the implementation of the MOU will rely on the 5-year reporting process being developed for the SPREP WDAP.
20. CMS Secretariat and SPREP to look into the possibility of intersessional informal calls to discuss progress and issues and potentially to feed in to the annual SPREP meeting.

## Technical Advisory Group

21. CMS Secretariat to outline pros and cons and details of both options presented in [CMS/PIC/MOS4/Doc.4.2](#) and consult Signatories on them. It will also reach out to the historical TAG members to see who wishes to remain involved.

## Funding Opportunities

22. CMS Secretariat to update the *Funding Opportunities and Fundraising Resources for the Conservation of Cetaceans in the Pacific Islands Region* document ([CMS/PIC/MOS4/Doc.4.3/Rev.1](#)) and make it available separately on the PIC MOU website so that it is readily available and can be further updated as new information becomes available.



**Annex 2:**  
**List of Participants**

**SIGNATORIES**

<b>Name</b>	<b>Affiliation</b>	<b>Email</b>
<b>Australia</b>		
Belinda HARDING	Department of Agriculture, Water, and the Environment	Belinda.Harding@environment.gov.au
Rebecca HAUGHEY	Department of Agriculture, Water, and the Environment	rebecca.haughey@environment.gov.au
Narelle MONTGOMERY	Department of Agriculture, Water, and the Environment	narelle.montgomery@environment.gov.au
<b>Cook Islands</b>		
Kerrie ROBERTSON	Ministry of Marine Resources	k.robertson@mmr.gov.ck
Alexis WOLFGRAMM	Ministry of Marine Resources	a.wolfgramm@mmr.gov.ck
<b>Fiji</b>		
Saras SHARMA	Ministry of Fisheries	saras.sharma0205@gmail.com
Senivasa WAQAIRAMASI	Ministry of Environment	senivasa.waqairamasi@govnet.gov.fj
<b>France</b>		
Christine FORT	Direction du service d'Etat de l'Agriculture, de la Forêt et de l'Environnement (DAFE) en Nouvelle-Calédonie	christine.fort@agriculture.gouv.fr
Florian LE BAIL	Service Territorial de l'Environnement de Wallis et Futuna	florian.le-bail@environnement.wf
<b>New Zealand</b>		
Anton van HELDEN	New Zealand Department of Conservation	avanhelden@doc.govt.nz
Jan HENDERSON	New Zealand Ministry of Foreign Affairs and Trade	jan.henderson@mfat.govt.nz
Dave LUNDQUIST	New Zealand Department of Conservation	dlundquist@doc.govt.nz
Alexandra MACDONALD	New Zealand Department of Conservation	almacdonald@doc.govt.nz
Jonathan MARTIN	New Zealand Ministry of Foreign Affairs and Trade	jonathan.martin@mfat.govt.nz
Andrea STEWART	New Zealand Department of Conservation	aestewart@doc.govt.nz
<b>Samoa</b>		
Maria SATOA	Ministry of Natural Resources and Environment	maria.satoa@mnre.gov.ws

Name	Affiliation	Email
<b>Tonga</b>		
Teisa TUPOU	Ministry of Tourism	teisa.fifita@gmail.com
<b>United States</b>		
Ann GARRETT	US Department of Commerce, National Marine Fisheries Services	ann.garrett@noaa.gov
Krista GRAHAM	NOAA Fisheries Pacific Islands Regional Office Protected Resources Division	krista.graham@noaa.gov
Anita HARRINGTON	US Fish and Wildlife Service	anita_harrington@fws.gov
Diana KRAMER	U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service	diana.kramer@noaa.gov
Nina YOUNG	NOAA Fisheries Office of International Affairs and Seafood Inspection	nina.young@noaa.gov

**INTERGOVERNMENTAL ORGANISATIONS**

<b>International Whaling Commission (IWC)</b>		
David MATTILA	IWC	David.Mattila@iwc.int
Lindsay PORTER	IWC	lindsay.jp@gmail.com
<b>Western and Central Pacific Fisheries Commission (WCPFC)</b>		
Lara MANARANGI-TROTT	WCPFC	lara.manarangi-trott@wcpfc.int
Eidre SHARP	WCPFC	eidre.sharp@wcpfc.int

**COLLABORATING ORGANIZATIONS**

<b>International Fund for Animal Welfare (IFAW)</b>		
Olive ANDREWS	IFAW	olive.andrews@asoc.org
Rebecca KEEBLE	IFAW	rkeeble@ifaw.org
<b>South Pacific Whale Research Consortium (SPWRS)</b>		
Charles Scott BAKER	SPWRS	scott.baker@oregonstate.edu
<b>Whale and Dolphin Conservation (WDC)</b>		
Philippa BRAKES	WDC and Chair of the CMS Expert Working Group on Animal Culture	philippa.brakes@whales.org
<b>World Wide Fund for Nature (WWF Pacific)</b>		
Alfred RALIFO	WWF Pacific	aralifo@wwfpacific.org

**INVITED EXPERTS**

Name	Affiliation	Email
Maurice BROWNJOHN	Parties to the Nauru Agreement	maurice@pnatuna.com
Simon CHILDERHOUSE	Cawthron Institute New Zealand	simon.childerhouse@gmail.com
Rochelle CONSTANTINE	IUCN SSC-SCPA Marine Mammal Protected Areas Task Force	r.constantine@auckland.ac.nz
Cara MILLER	University of New England	caramasere@gmail.com
Karen STOCKIN	Massey University and IWC Strandings Initiative Expert Panel	K.A.Stockin@massey.ac.nz

**OBSERVERS**

Catherine DOREY	Australian Marine Conservation Society	catdorey@amcs.org.au
Francis HICKEY	Vanuatu National Museum	francishi@vanuatu.com.vu
Sara KOPHAMEL	James Cook University	sara.kophamel@my.jcu.edu.au
Kate O'CONNELL	Animal Welfare Institute	kate.oconnell@balaena.org
Beth PEARSALL	Colville Harbour Care	bethpearsallpeters@gmail.com
Margi PRIDEAUX	Wild Migration	margi@wildmigration.org

**SECRETARIAT**

<b>Convention on Migratory Species (CMS)</b>		
Melanie VIRTUE	Head of Aquatic Species Team	melanie.virtue@un.org
Heidrun FRISCH-NWAKANMA	Programme Management Officer	heidrun.frisch-nwakanma@un.org
Jenny RENELL	Associate Coordination Officer	jenny.renell@un.org
Helene TAO	Intern	helene.tao@cms.int
<b>Secretariat of the Pacific Regional Environment Program (SPREP)</b>		
Karen BAIRD	Threatened and Migratory Species Advisor	karenB@sprep.org
Michael DONOGHUE	Te Tiaki Moana Associates	michael.donoghue@xtra.co.nz
Hannah HENDRIKS	Migratory Marine Species Conservation Officer	hannahh.ext@sprep.org
Unity ROEBECK	Turtle Database and Conservation Officer	unityr@sprep.org
Juney WARD	Ecosystem and Biodiversity Officer	juneyw@sprep.org
Amanda WHEATLEY	Biodiversity Advisor	amandaw@sprep.org

### **Annex 3:**

#### **Welcoming Remarks from Kosi Latu, Director-General of SPREP**

Welcome to the 4<sup>th</sup> Meeting of the Signatories to the MOU on Pacific Island Cetaceans. Thank you all for making the time to attend this meeting and special thank you also to the CMS Secretariat and SPREP staff who have been working for months to organise it.

Here in the Pacific, we live in difficult times, faced with a range of threats to both ourselves and our environment. The same is true for our marine wildlife, and SPREP is committed to supporting all its members who want to protect whales and dolphins. Cetaceans are amongst the most iconic and culturally important animals in the Pacific, and feature widely in the art and folklore of SPREP members.

In 2016/17, SPREP celebrated the Year of the Whale, focussing on many of the issues that you will be discussing over the next two days. Our job over the next two days will be to chart a way forward, guided by a new draft Action Plan and our discussion today, to ensure the conservation of whales and dolphins in our region.

The CMS framework and the Pacific Islands Cetacean MOU in particular is a key mechanism for achieving this goal, facilitating us to agree on priorities for these migratory species. Here in the Pacific Islands, which covers over 10% of the planet's oceans, we must then take responsibility for ensuring implementation of the Action Plan. Many of the problems faced by our whales and dolphins are seen all over the world, but our approach to them is uniquely Pacific.

The CMS Convention encourages international cooperation to protect migratory species and is well suited to the Pacific Islands. I welcome the representatives of governments, those who are signatories to the Convention or the MoU, and those who are Range States. I also welcome the Collaborating Organisations to the MOU, and other NGOs and stakeholders.

Many of you will also have attended the Regional Marine Species Action Plan meetings over the last 2 weeks, culminating in the Whale and Dolphin Action Plan meeting which was held on Tuesday this week. This meeting heard some of the presentations that we will hear today and discussed some of the key issues facing our whales and dolphins. It was very clear that our Pacific Island governments are keen to protect both resident and migratory cetaceans within their waters, although they need assistance and training in survey techniques and to better deal with stranded and entangled animals.

Key threats facing our cetaceans in the region are fisheries bycatch in both industrial and local fisheries including from interactions with discarded fishing gear, as well as direct take and pollution, including the unknown potential future impacts from Deep Sea Mining. Our migratory whales also now face increasing threats from climate change particularly to their krill food supply in Antarctica, which could have far-reaching consequences for their recovery from whaling.

I am looking forward to two days of well-informed debate, and discussion on the way forward to address these issues.

Our grateful thanks to the many contributors and presenters – the sharing of your expert knowledge will help us all to identify the best way forward in a post-Covid world. Our aim is to devote some time towards the end of the second day to discuss this.