



CONVENTION ON MIGRATORY SPECIES



ANNEX 2 TO THE MEMORANDUM OF UNDERSTANDING FOR THE CONSERVATION OF CETACEANS AND THEIR HABITATS IN THE PACIFIC ISLANDS REGION

WHALE AND DOLPHIN ACTION PLAN 2013 - 2017

GOAL: To conserve whales and dolphins and their habitats for the people of the Pacific Islands region

Introduction

1. Whales and dolphins (cetaceans) are an important component of the marine biological diversity of the Pacific Islands region. Over half the world's known species of whales and dolphins are found in this region, and for some species, such as humpback whales, the region is a vital breeding area. Whales and dolphins are widely regarded as flagship species for Pacific marine ecosystems, and feature prominently in promotional tourism material. Many Pacific Island cultures have legends about whales and dolphins, and the people have traditional uses for them. These species are generally long-lived and have low reproductive rates. For many species of large whales, commercial whaling during the nineteenth and twentieth centuries, largely by countries from outside the region, has reduced the breeding populations of South Pacific whales to extremely low levels, possibly to local extinction for some species. Recently, many Pacific Island countries and territories have declared whale sanctuaries or marine sanctuaries for marine animals including whales and dolphins.

Species Distribution

2. Based on largely opportunistic records, at least 30 different whale and dolphin species are known to migrate or reside (on either an occasional or year-round basis) within the Economic Exclusive Zones (EEZs) of the 22 Pacific Island Countries and Territories (PICTs). Species include the largest of all marine mammals, the blue whale, as well as numerous other baleen whale species' including minke, fin, sei and humpback are present in the Pacific Islands Region (PIR). In addition, toothed cetaceans of all sizes including false killer whales, short-finned pilot whales and many dolphin species such as pan-tropical spotted, striped and Risso's occur in the waters of many PICTs.

3. Given the current state of information the most commonly reported species across the region include the sperm whale, short-finned pilot whale and spinner dolphin. Most current and comprehensive distribution and abundance information is available for humpback whales. Rarely sighted species include snubfin dolphin, Indo-Pacific humpbacked dolphin, and some of the beaked whale species. However, the limited research efforts in the PIR, coupled with the very large expanse of marine area, make it plausible that there may also be many unreported species that inhabit these waters. A comprehensive understanding of whale and dolphin diversity and distribution in the Pacific Islands Region is considered to be incomplete as there are many locations that have not been surveyed. On a relative basis however New Caledonia, French Polynesia, Northern Marianas Islands, Papua New Guinea and Samoa have documented a comparatively higher number of species in their waters than other PICTs. Relatively few records have been documented from other PICTs including Wallis and Futuna, Tokelau, and Pitcairn Islands due mainly to the absence sampling effort and current work undertaken.

4. Table 1 provides a checklist of species presence as noted from either a peer-reviewed or verified record within the waters of given PICTs. However, these records or inferences regarding relative diversity should be viewed as preliminary as not all records are of equal reliability or from a recent survey or observation (additional details on record quality as well as additional tentative records can be found in Miller, 2009). Furthermore, there has been unevenness in effort and documentation in terms of both locations and species' focus across the PIR.

Table 1: Presence of cetacean species in Pacific Island Countries and Territories
(Source: Miller, 2012).

Cetacean species	Pacific Island Country or Territory										
	AS	CI	FSM	Fi	FP	Gu	Ki	MI	Na	NC	Ni
Minke whales	x	x		x	x			x		x	x
Sei shale		x				x				x	x
Bryde's-like whales		x	x	x					x	x	
Blue whales		x		x			x	x		x	
Fin whale				x				x		x	
Humpback whale	x	x		x	x	x		x		x	x
Common dolphins		x						x		x	
Pygmy killer whale					x					x	
Short-finned pilot whale	x	x	x	x	x	x	x	x		x	x
Risso's dolphin					x	x				x	
Fraser's dolphin		x	x		x		x		x		
Snubfin dolphin											
Orca	x	x	x	x	x		x	x		x	x
Melon-headed whale		x	x		x	x		x	x	x	
False killer whale	x			x	x	x				x	x
Indo-Pacific humpback dolphin											
Pantropical spotted dolphin	x	x	x	x	x		x	x		x	
Striped dolphin	x		x			x		x			
Spinner dolphin	x	x	x	x	x	x	x	x		x	x
Rough-toothed dolphin	x				x		x			x	
Bottlenose dolphins	x		x	x	x		x	x		x	
Diminutive sperm whale	x			x	x	x				x	
Sperm whale	x	x	x	x	x	x	x		x	x	x
Blainville's beaked whale		x		x	x		x			x	
Gingko-toothed whale			x				x				
Cuvier's beaked whale	x	x			x	x				x	

Table 1: (continued). Presence of cetacean species in Pacific Island Countries and Territories

Cetacean species	Pacific Island Country or Territory										
	NMI	Pa	PNG	PI	Sa	SI	Tok	Ton	Tu	Va	WF
Minke whales	x				x			x	x		
Sei shale	x		x					x			
Bryde's-like whales	x	x	x		x	x				x	
Blue whales						x					
Fin whale											
Humpback whale	x		x	x	x			x		x	x
Common dolphins											
Pygmy killer whale	x	x	x					x			
Short-finned pilot whale	x		x	x	x	x		x		x	
Risso's dolphin	x		x		x	x		x			
Fraser's dolphin			x		x	x					
Snubfin dolphin			x			x					
Orca		x	x		x	x		x	x	x	
Melon-headed whale	x	x	x		x	x		x		x	
False killer whale	x		x		x	x		x			
Indo-Pacific humpback dolphin			x								
Pantropical spotted dolphin	x		x			x		x	x	x	

Cetacean species	Pacific Island Country or Territory										
	NMI	Pa	PNG	PI	Sa	SI	Tok	Ton	Tu	Va	WF
Striped dolphin	x	x			x	x					
Spinner dolphin	x	x	x		x	x		x	x	x	
Rough-toothed dolphin	x				x	x					
Bottlenose dolphins			x		x	x		x	x	x	
Diminutive sperm whale	x		x		x				x		
Sperm whale	x	x	x	x	x	x	x	x	x	x	x
Blainville's beaked whale					x						
Gingko-toothed whale											
Cuvier's beaked whale	x		x		x						

Note: "Diminutive sperm whale" is Kogia species, either dwarf sperm whale or pygmy sperm whale.

Species Status

5. Cetacean species present in the PIR vary in conservation status according to the IUCN system of species classification (IUCN, 2001). Endangered species present in the PIR include the Sei whale, blue whale, fin whale and the Oceania subpopulations of the humpback whale. Near Threatened species include the snubfin dolphin and the Indo-Pacific humpback dolphin, and the sperm whale is listed as Vulnerable. Some species are also listed as "Least Concern", however, the majority of cetacean species are listed as Data Deficient (DD). Such a designation infers that there is "inadequate information to make a direct, or indirect, assessment of its risk of extinction based on its distribution and/or population status" (IUCN, 2001). This lack of information provides a difficult starting point for conservation efforts as it has been noted that DD species should not be treated as non-threatened, and in fact "it may be appropriate to give them the same degree of attention as threatened taxa, at least until their status can be assessed" (IUCN, 2001).

6. PICT cetacean species listed on CMS Appendix I are Sei, blue, fin, humpback and sperm whales. A number of PICT cetacean species are also listed on CMS Appendix II including orca, snubfin dolphin, and Bryde's whale. Some of the CMS listings are population specific yet still may encompass some of the PIR within the given range.

Traditional Knowledge and Customs

7. Whales and dolphins are important to the cultures, legends, traditions and heritage of many Pacific Island peoples. In Fiji, sperm whale teeth have particular cultural significance. Whales and dolphins are associated with identity, lifestyle and wellbeing. Migrations of whales are used as an environmental cue on some islands, and ceremonies and ritual surround cetaceans across the region. In some traditions, they are viewed as incarnations of humans.

Income Generating Opportunities through Eco-Tourism

8. Whale and dolphin watching tourism is conducted in 119 countries globally generating USD 2.1 Billion dollars per year (Hoyt, 2008). A regional review of the status of marine mammal tourism activities commissioned by the International Fund for Animal Welfare (IFAW) in collaboration with SPREP, SPWRC and the South Pacific Tourism Organisation (SPTO), showed that whale watching is becoming an important component of tourism development in the region with a total estimated direct economic value of USD \$7.5 million and USD \$21 million in total value in 2005.

9. The climate and opportunities available for marine mammal tourism in the Pacific region are world class. Furthermore, the growth potential and economic benefits of cetacean-based tourism has

proved an effective argument against the killing of whales. However, the industry grew at 45% per year in the period 1998 – 2005 which is raising questions about the sustainability of the activity. Issues related to the growth of the industry include the potential impacts on marine mammal populations and the need for management measures.

10. There is growing concern from the international scientific community that the cumulative effects of marine mammal tourism may threaten the recovery and survival of target species. Several management tools exist in the region to assist the sustainable development of the industry and aim to reduce impacts and increase the educational values of the activity: The Pacific Regional Guidelines for Whale and Dolphin Watching (SPREP, 2008), and the Whales Alive Whale Watching Operator and Guide Training Program.

Threats

11. Key threats to cetaceans in the Pacific Islands Region include:

- scientific whaling (in Antarctic feeding grounds);
- pollution;
- habitat degradation;
- noise;
- ship strikes;
- climate change;
- drive hunts;
- captures for captivity;
- fisheries by-catch;
- ecotourism; and
- lack of scientific information.

12. Key species involved, geographic location of the coverage of the threats, and the time of year (or regularity) of different threats varies across the region.

Themes and Objectives

Theme	Objectives
1. Information, Awareness/Education and Communication	1.1: Develop communication strategies, training programmes and protocols for key issues within the Whale and Dolphin Action Plan.
	1.2: Increase awareness and understanding of whales and dolphins in the region.
2. Capacity Building	2.1: Increase in-country expertise and capacity.
3. Threat Reduction	3.1: Minimize the impacts of the major (five) hazards listed below on whale and dolphin populations in the Pacific Islands region: <ul style="list-style-type: none"> • Fisheries interactions. • Climate change. • Coastal development. • Pollution/pathogens. • Direct take.

Theme	Objectives
4. Ecosystem and habitat Protection	4.1: Support and encourage the designation (establishment) of national whale/ marine sanctuaries, marine park, MPAs in SPREP members.
	4.2: Support the management of whale / marine sanctuaries, MPAs and marine parks.
	4.3: Identify and protect critical habitat and migratory pathways.
5. Legislation, Policy and Management/ Recovery Plans	5.1: Develop country level legal, policy and institutional framework to support the effective implementation of the whales and dolphins action plan.
	5.2: Develop and support implementation of regional/ national whale and dolphin species management and recovery plans.
6. Cultural Significance and Value	6.1: Document the range of cultural practices, values and knowledge associated with whales and dolphins and encourages a more cohesive approach in policies and legislation.
	6.2: Preserve and protect the traditional knowledge and values associated with whales and dolphins.
	6.3: Ensure appropriate cultural knowledge, practices, and values inform and underpin management measures.
7. Research and Monitoring	7.1: Establish abundance/distribution of all cetaceans in the Pacific Islands region. 7.2: Estimate key demographic parameters to help diagnose trends. 7.3: Undertake research and monitoring to identify hazards and develop hazard mitigation strategies. 7.4: Improve data collection and database management systems. 7.5: Undertake comprehensive habitat mapping. 7.6: Improve information received on stranding events in the Pacific Island Region.
8. Whale and Dolphin based Tourism	8.1: Ensure the development of whale and dolphin tourism is sustainable throughout the Pacific Islands Region. 8.2: Ensure best practice management of whales and dolphins tourism in the PIR. 8.3: Whale and dolphin based tourism watching is conducted responsibly with minimum impact and maximum education and economic values.
9. National, Regional and International collaboration and Cooperation	9.1: Promote and enhance national, regional and international coordination, collaboration and partnership for whale and dolphin conservation in the Pacific Islands Region.

Themes, Objectives and Actions

Theme 1: Information, Awareness/Education and Communication		
Objective 1: Develop communication strategies, training programmes and protocols for key issues within the Whale and Dolphin Action Plan		
Actions	Lead	Priority
1.1: Identify key issues for each member and support development of appropriate education strategies and programmes (e.g. known threats; species ID; status).	Members/ Partners	High
1.2: Develop appropriate education and awareness tools incorporating scientific and traditional knowledge for different target audiences at a regional and national level.	All	High
1.3: Integrate traditional knowledge, stories and customs into education and awareness tools and materials.	Members/ Partners	Medium
1.4: Capacity building of Government agencies and community trainers to facilitate stewardship, and to develop and deliver outreach programmes.	Partners	Medium
Indicators:		
<ul style="list-style-type: none"> • Community and school education programmes implemented. • Regionally relevant factsheets to inform governments and industries on key issues are produced e.g. fisheries interaction, cultural practices, regulation, biology, natural history, species ID etc). • Training programmes carried out in country for key government agencies and identified local community stewards. 		
Objective 2: Increase awareness and understanding of whales and dolphins in the region		
Actions	Lead	Priority
1.5: Implement educational and awareness tools in schools and/or communities using relevant networks and methods.	Members/ Partners	High
1.6: Provide materials and information to mass media in-country to inform public.	All	High
1.7: Disseminate educational materials targeted at recreational / private boaters to ensure minimum impact.	Members/ Partners	Medium
1.8: Declare 2014 as the Pacific year of the whale and support the planning, development, and implementation of in-country and regional conservation campaigns (in support of international effort by SORP).	SPREP/ Partners/ Members	High
1.9: Take advantage of freely available educational materials from organizations such as the U.S. National Oceanic and Atmospheric Administration (NOAA), and games for children (e.g. http://www.environment.gov.au/coasts/publications/whales-kids-interactive/index.html , developed by the Australian Government) to increase understanding of the importance of cetaceans.	All	Medium
Indicators:		
<ul style="list-style-type: none"> • Presentations on whales and dolphins carried out in schools, village halls and annual festivities. • Whales and dolphins are profiled through documentaries, interviews and regular spots in local media. 		

- ID guides, factsheets and guidelines / brochures are distributed to boaters, mariners, yacht clubs, through government agencies and NGOs.
- Educational programmes implemented in schools, education centres and museums.
- Informal/ traditional methods of education are employed at community level.
- 2014 celebrated as the Year of the Whales.

Theme 2: Capacity Building

Objective 1: Increase in-country expertise and capacity.

Actions	Lead	Priority
2.1: Identify and address training needs and support proposal writing to implement WDAP at country and regional level, using existing processes such as National Capacity Self Assessment (NCSA).	Members/ Partners	High
2.2: Develop training packages on common priorities (e.g. stranding, data recording, legislation, communication, etc.) based on regional priorities and convene workshops based on identified needs.	SPREP/ Partners	High
2.3: Support internship training on whales and dolphins in existing research centers.	SPREP/ Partners	Medium
2.4: Build in-country capacity to prepare relevant regulation, legislation and policy.	Partners/ SPREP	High
2.5: Conduct national and/or (sub) regional training workshops on necropsy, including collection and storage of tissues, skeletal remains and analysis.	Partners/ SPREP	Medium
2.6: Conduct sub-regional training and verification of whale and dolphin sightings, reporting, abundance estimation techniques.	Partners/ SPREP	Medium
2.7: Develop database complementary to that under the Marine Turtle Action Plan.	SPREP/ Partners	High
2.8: Develop surveillance and enforcement capacity for implementation of national protection measures including whale and dolphin watching tourism operations.	Members/ Partners	High
2.9: Conduct industry training and certification programmes for whale / dolphin watching operators and guides, which should be required to attain a whale and dolphin watching permit / license where applicable.	Partners	Medium
2.10: Develop capacity to negotiate and advocate for regional policies and positions.	Partners/ SPREP	Medium
Indicators: <ul style="list-style-type: none"> • Training needs identified and addressed. • Training packages prepared and made available. • Increase technical capacity to obtain information and assist in conservation of whales and dolphins in the region. • Improved capacity to develop and implement policies and legislation. • Whale/dolphin operator training and certification programs are implemented in SPREP nations. • Number of countries/territories providing information for the database. 		

Theme 3: Threat Reduction		
Objective 1: Minimize the impacts of the major hazards listed below on whale and dolphin populations in the Pacific Islands region: <ul style="list-style-type: none"> • Fisheries interactions. • Climate change. • Coastal development. • Pollution/pathogens. • Direct take. 		
Actions	Lead	Priority
(i) <u>Fisheries Interactions</u>		
3.1: Collaborate to improve data and share information on fisheries / cetaceans interactions, and successful and unsuccessful tactics for mitigation.	All	High
3.2: Foster industry / research institution / government partnership to develop and test mitigation techniques to reduce bycatch and depredation.	All	High
Indicators: <ul style="list-style-type: none"> • Improved catch reporting systems. • System of collecting data from fishing operators on by-catch and depredation developed and used. • Properly tested depredation / mitigation techniques. • Increased adoption of mitigation techniques by fisheries. 		
(ii) <u>Direct take</u>		
3.3: Take actions to ensure a favourable conservation status of affected whale and dolphin species.	Members/	High
3.4: Ensure compliance with all relevant international regulations and conventions/agreements.	Partners/	High
Indicators: <ul style="list-style-type: none"> • Improved reporting and recording of direct take data/information. • Management system in place, e.g. management plans, policies, regulations etc that ensure sustainability of species stocks. • Adoption of international regulations/agreements applied to capture activities. 		
(iii) <u>Climate Change</u>		
3.5: Facilitate the collation and dissemination of current knowledge of the impacts of climate change on cetaceans and their habitats.	SPREP/ Partners	Medium
3.6: Build links into international fora addressing climate change.	SPREP/ Partners	Medium
3.7: Analyze information/impacts of climate change.	Partners	Medium
Indicators: <ul style="list-style-type: none"> • Document/presentation on climate change impacts to whales and dolphins provided to Members. • Links to international fora addressing climate change established. 		

(iv) <u>Pollution and Pathogens</u>			
3.8:	Encourage improved waste management at community and national levels (including fishing operations) to reduce plastics and other debris in the marine environment.	All	High
3.9:	Reduce amount of discarded fishing gear in the ocean.	Partners/ Members	High
3.10:	Disseminate waste management guidelines to relevant Departments/Agencies for promotion.	Partners	High
3.11:	Consider and reduce impacts of underwater noise pollution from any source that could affect whales and dolphins.	Members/ Partners	High
Indicators:			
<ul style="list-style-type: none"> • Better information on the impacts of plastics and other debris to whales and dolphins. • Waste management guidelines promoted at all levels. • Impacts of underwater noise pollution to whales and dolphins considered and reduced for any undertaking in the sea. 			
(v) <u>Coastal Development and Tourism</u>			
3.12:	Implement appropriate recommendations resulting from assessments of the impacts of whale and dolphin watching and swim-with activities.	Members/ Partners	High
3.13:	Encourage consultation/consideration of impacts on whales and Dolphins in national legislative and environmental impact assessment (EIA) processes and ensure proponents consider impacts to cetaceans through EIA processes.	Members/ Partners	High
3.14:	Identify particular localized areas and populations that are currently subject to negative impacts from coastal development and tourism activities, and develop appropriate monitoring and mitigation of any significant impacts.	Partners/ Members	High
3.15:	Develop management and mitigation strategies to reduce identified Impacts/localized effects from coastal development and tourism activities on whales and dolphins.	Members/ Partners	High
Indicators:			
<ul style="list-style-type: none"> • Consideration of impacts on whales and dolphins incorporated into processes such as EIA, and potential impact information made available. • Monitoring on identified localized populations. • Strategies to reduce impacts from coastal development developed and implemented. 			

Theme 4: Ecosystem and Habitat Protection		
Objective 1: Support and encourage the designation (establishment) of national whale/marine sanctuaries, marine park, MPAs in SPREP member countries and territories		
Actions	Lead	Priority
4.1: Support effort to declare/establish EEZ wide / national whale/marine sanctuaries, large MPAs and marine parks with technical/policy advice.	SPREP/ Partners	High

Indicators		
<ul style="list-style-type: none"> Additional SPREP members formally designate/establish national EEZ-wide sanctuaries and other marine protected areas that protect cetaceans. 		
Objective 2: Support the management of whale / marine sanctuaries, MPAs and marine parks		
Actions	Lead	Priority
4.2: Support the development and implementation of management plans and strategies for sanctuaries/MPAs/Marine Parks.	SPREP/ Partners	High
4.3: Harmonize local and national MPAs for the protection and management of cetaceans where possible.	Members	Medium
Indicators:		
<ul style="list-style-type: none"> Management Plans and strategies for all established sanctuaries/MPAs/Marine Parks developed and implemented. Local and national MPAs etc linked properly in terms of management and implementation. 		
Objective 3: Identify and protect critical habitat and migratory pathways		
Actions	Lead	Priority
4.4: Identify (through research etc. including the use of satellite tagging) and protect critical cetacean habitat and migratory pathways.	Partners/ Members	High
4.5: Link with and utilize existing large scale marine habitat programs regionally and nationally to share information.	Members/ Partners	Medium
Indicators:		
<ul style="list-style-type: none"> Critical habitat and migratory pathways are identified, mapped and protected. 		

Theme 5: Legislation, Policy and Management/Recovery Plans		
Objective 1: Develop country level legal, policy and institutional framework to support the effective implementation of the whales and dolphins action plan		
Actions	Lead	Priority
5.1: Update legislative and policy review for SPREP member countries and territories and disseminate the final report. The review will include: <ul style="list-style-type: none"> identifying legislative inconsistencies and gaps; habitat and species protection measures including sanctuary declaration, MPAs, MPs and associated management plans; regulation of distant water and local fleets, including observer programme coverage to document commercial fishing impact and interaction with whales and dolphins. 	Members/ SPREP/ Partners	High
5.2: Based on review, strengthen or amend existing policies and legislation, develop new ones where necessary, for the effective conservation management of whales and dolphins, including measures to mitigate threat and ensure habitat protection.	Members	High
5.3: Identify and respond to country / territory legal and policy needs.	Partners/ SPREP	Medium

5.4:	Utilise the processes and outcomes used for NCSA and other related biodiversity mechanism, to address legal and policy needs for whale and dolphin conservation needs.	Members/	Medium
Indicators:			
<ul style="list-style-type: none"> Regional legislative/management review completed and widely disseminated. Harmonisation of in country/territory policy and legal instruments. 			
Objective 2: Develop and support implementation of regional/national whale and dolphin species management and recovery plans			
Action		Lead	Priority
5.5:	Actively seek resources to ensure the Oceania Humpback Whale Recovery Plan is sufficiently supported for successful implementation.	Partners (SPWRC/ SPREP)/ Members	High
5.6:	Develop and implement national whale and dolphin action plans, including recovery plans, where necessary, based on the regional action plan, to promote and guide national whale and dolphin conservation programmes and initiatives.	Members/ SPREP/ Members	High
5.7:	Ensure to develop management plans for established/declared marine sanctuaries, MPAs and other ecosystem-based protection mechanisms that include whales and dolphins.	Members/ SPREP	High
Indicators:			
<ul style="list-style-type: none"> Implementation of the Oceania Humpback Whale recovery Plan sufficiently supported/ funded. National whale and dolphin management/recovery plans developed and implemented. Management plans for marine sanctuaries etc that include whales and dolphins developed. 			

Theme 6: Cultural Significance and Value			
Objective 1: Document the range of cultural practices, values and knowledge associated with whales and dolphins and encourage a more cohesive approach in policies and legislation			
Actions		Lead	Priority
6.1:	Undertake a review of customary practice and knowledge related to the conservation and management of whales and dolphins.	Members/ Partners	Medium
6.2:	Promote the adoption and integration of customary practices related to the conservation and management of whales and dolphins, where appropriate.	Members	Medium
6.3:	Review and identify gaps and conflicts in relevant policies and legislation to support the protection and promotion of traditional resource management (TRM), traditional knowledge (TK), intellectual property rights (IPR), access and benefit sharing (ABS), and customary marine tenure (CMT).	Members/ Partners	High
6.4:	Address gaps and conflicts found in the review where required, in consultation with local communities and relevant stakeholders.	Members	Medium

6.5:	Support and promote the introduction of appropriate formal protection of IPR, TK and ABS at a national, regional and international level.	Members	High
6.6:	Support the documentation of traditional knowledge, practices, heritage and values, using existing networks.	Partners	Medium
Indicators:			
<ul style="list-style-type: none"> TK and other customary practices and values documented and incorporated where relevant. Review on gaps carried out and report published and disseminated. Artifacts and narratives (oral histories) documented and conserved in local museums. 			
Objective 2: Preserve and protect the traditional knowledge and values associated with whales and dolphins			
Actions		Lead	Priority
6.7:	Identify and empower appropriate in-country authorities to hold, maintain and promote traditional knowledge.	Members	High
6.8:	Establish documentation protocols and agreed partnerships with cultural groups / chiefly bodies and individual knowledge holders regarding appropriate use and dissemination of information.	Members	Medium
Indicators:			
<ul style="list-style-type: none"> Each country has identified appropriate authority to house and promote cultural information. Ongoing promoting and support for TK, ABS in national, regional and international fora. 			
Objective 3: Ensure appropriate cultural knowledge, practices, and values inform and underpin management measures			
Actions		Lead	Priority
6.9:	Assess the sustainability of cultural practices involving whales and dolphins that may represent a threat to whales and dolphins (e.g. Solomon Islands dolphin drive).	Partners/ Members	High
6.10:	Ensure traditional protocols and knowledge are respected in The design and implementation of biological surveys	Partners/ Members	High
6.11:	Ensure national and local policies and management respect and draw upon traditional knowledge.	Members	High
6.12:	Support development of community (based) management plans to include conservations of whales and dolphins.	Members	High
Indicators:			
<ul style="list-style-type: none"> Case studies supported on sustainability of cultural practices in countries interested in supporting sustainability assessments. Relevant whale and dolphin traditional knowledge and cultural values are used and acknowledged in scientific surveys design and execution and formulation of national management policies. 			

Theme 7: Research and Monitoring		
This Action Plan promotes only non-lethal techniques for research		
Objective 1: Establish abundance/distribution of all cetaceans in the Pacific Islands region Prioritization to be given to those species or populations known to be subject to direct or indirect threats, and/or have a data deficient or unfavourable conservation status.		
Actions	Lead	Priority
7.1: Develop and maintain a web-accessible whale and dolphin sighting database.	Partners	High
7.2: Improve understanding of species diversity in all PICTs.	Partners/ Members	High
7.3: Establish distribution, range and habitat information of PIR cetacean species through the conduct of dedicated surveys.	Partners/ Members	High
7.4: Develop a training manual that encompasses abundance survey methodologies using a variety of techniques including platforms of opportunity and methodologies commonly available and accessible in the Pacific Islands region.	Partners	High
7.5: Undertake training workshops to target delivery of training on abundance estimate techniques.	Partners/ SPREP	High
7.6: Disseminate species identification and related information resources to all PICTs (e.g. IFAW and SPC identification kit for observer programme).	SPREP/ Partners	High
7.7: Increase use of remote sensing device, especially acoustic.	Partners	Medium
Indicators:		
<ul style="list-style-type: none"> • Online regional sighting database established and operational. • Up-to-date whale and dolphin species diversity lists for all PICTs. • Abundance estimates manual completed and training workshops undertaken. • Improved estimates of distribution, abundance and habitat for PIR whale and dolphin species. • At least one remote sensing device deployed in the region for at least six months. 		
Objective 2: Estimate key demographic parameters to help diagnose trends Prioritization to be given to those species or populations known to be subject to direct or indirect threats, and/or have a data deficient or unfavourable conservation status.		
Actions:	Lead	Priority
7.8: Estimate the following parameters of PIR cetacean populations: <ul style="list-style-type: none"> • annual survival rate; • annual growth rate; • annual birth rate and birth interval; • annual migration and immigration rates. 	Partners/ Members	Medium
Indicators:		
<ul style="list-style-type: none"> • Key demographic parameters established for PIR cetacean populations. 		

Objective 3: Undertake research and monitoring to identify hazards and develop hazard mitigation strategies		
Actions	Lead	Priority
7.9: Collate all available information on the scale of depredation, by-catch and fisheries interaction in order to better assess level of priority and possible mitigation actions.	Partners/ SPREP/ Members	High
7.10: Promote increased reporting of cetacean related information (sightings, fisheries entanglements or by-catch, depredation etc.) from all fishing vessels.	Members/ Partners	High
7.11: Include assessments of impacts in researches on abundance, structure, distribution, trends of humpback, minke, fin and sperm whales	Partners/ Members	High
7.12: Include assessments of harvest impacts in researches on abundance, structure, distribution, trends for whale and dolphin species targeted.	Partners/ Members	High
7.13: Identify locations and circumstances in which pollution (including noise, fishing gear, plastics etc.) and pathogens may be introduced into the PIR marine environment.	Partners/ Members	Medium
7.14: Assess whether identified pollutants and pathogens (Action 7:13) sources might adversely affect cetaceans in the PIR.	Partners	Medium
7.15: Collect information on the potential impact of plastics and fishing gear on whales and dolphins, including from stranding networks.	Partners/ Members	High
7.16: Review impacts of seabed mining on cetacean populations in the PIR.	Partners	Medium
7.17: Encourage reporting of ship-strikes.	Partners/ Members	Medium
7.18: Document the number of animals, species, location and date of any take (hunting, captivity purposes, research etc.).	Members/ Partners	High
7.19: Assess the impacts of climate change on PIR cetacean species.	Partners/ Members	Medium
7.20: Develop a threat assessment for each PIR cetacean species (with reference to populations if necessary).	Partners/ SPREP/ Members	High
7.21: Identify potential for significant impact / localized effects from tourism activities on whales and dolphins.	Partners/ Members	Medium
7.22: Assess the potential impacts of whale and dolphin watching and swim with activities on the animals.	Partners	High
Indicators:		
<ul style="list-style-type: none"> • Scale of depredation and by-catch from fishing operations assessed. • Non-lethal research carried out on abundance of whales and dolphin species that are targeted in whaling hunt and live capture. • Improved record keeping on cetacean take e.g. hunts, captivity etc. • Assessment of pollutants, pathogens, sea bed mining and climate change made. • Information on impacts of plastics and fishing gear compiled. • Impacts of tourism related activities assessed. 		

Objective 4: Improve data collection and database management systems		
Actions	Lead	Priority
7.23: Maintain regional species inventory database including directed research and monitoring as well as anecdotal and opportunistic records.	WDCS/	High
7.24: Promote the reporting of as much information as possible from any anecdotal or opportunistic sightings including ship strikes and fisheries Interactions, as well as sighting reports from the community, boating/dive community records, ferries etc.	Members/ Partners	High
7.25: Promote the development of national sighting and stranding networks, inclusive of all relevant stakeholders.	SPREP/ Partners/ Members	High
7.26: Facilitate the process by which sighting and stranding records are reported to the national network. In addition, provide effective feedback and updates to the network – and from the network to regional databases.	All	High
7.27: Undertake training sessions and workshops on species identification for relevant stakeholders	Partners/ Members	Medium
7.28: Produce a regional booklet / stranding manual with species identification, forms & instructions in English, Pidgin & French	SPREP/ Partners	High
Indicators:		
<ul style="list-style-type: none"> • Regional databases operational and current. • National networks include all relevant stakeholders and contain opportunistic and anecdotal reports as well as directed survey information. • All stranding events are well documented. • Species identification and responses to stranding events improved. 		
Objective 5: Undertake comprehensive habitat mapping		
Prioritization should be given to those species or populations known to be subject to direct or indirect threats, and/or have a data deficient or unfavourable conservation status.		
Actions	Lead	Priority
7.29: Collate a listing of key habitat characteristics for as many PIR cetacean species as possible.	Partners/ Members	High
7.30: Undertake habitat mapping of relevant environmental variables on species identified in Action 7.29.	Partners/ Members	High
7.31: Ground truth proposed distribution of cetacean species as per habitat maps through research surveys.	Partners/ Members	High
Indicators:		
<ul style="list-style-type: none"> • Increased understanding of habitat preferences and use by PIR cetacean species. • Maps of cetacean species distribution in the PIR based on habitat and environmental characteristics. 		
Objective 6: Improve information received on stranding events in the Pacific Island Region		
Actions	Lead	Priority
7.32: Encourage as much information as possible to be collected at a stranding event. If possible, full necropsies should be undertaken, including examination for plastic ingestion.	Members/ Partners	High

7.33:	Develop a website to improve the documentation of whale and dolphin strandings in the Pacific Islands region (referred to as ' <i>A Pattern of Strandings</i> ').	SPREP/ SPWRC	High
7.34:	Collect community records and knowledge on whales and dolphins and incorporate into the regional stranding database.	Members/ Partners	Medium
7.35:	Produce a regional booklet / stranding manual with species identification, forms and instructions in English, Pidgin and French.	SPREP/ Partners	High
7.36:	Encourage a MoU between the University of Auckland and SPREP for processing and storage of tissue samples for genetic work.	SPREP	High
7.37:	Provide basic stranding kits (including for genetic samples) to members.	SPREP/ Partners	High
7.38:	Assist in funding for experts to attend national workshops in the region.	SPREP/ Partners/ Members	Medium
Indicators:			
<ul style="list-style-type: none"> • Stranding Database and network established and operational. • Stranding manual produced in three languages and distributed. • Tissue archive and protocols for deposition and access established. • Kits for genetic sampling distributed and used. 			

Theme 8: Whale and Dolphin Based Tourism		
Objective 1: Ensure the development of whale and dolphin tourism is sustainable throughout the Pacific Islands Region		
Actions	Lead	Priority
8.1: Document and share lessons learnt from countries/territories with established whale and dolphin watching industries.	Partners/ Members	High
8.2: Maintain a regional database to document the growth and economics of whale and dolphin tourism.	Partners/ SPREP	High
8.3: Assess carrying capacity of target population of whales and dolphins to manage size of the industry.	Partners	High
8.4: Encourage diversification from a single species (e.g. humpback whales) industry, where available, to minimize impacts.	Members/ Partners	Medium
Indicators:		
<ul style="list-style-type: none"> • A regional database is established to assess growth of the industry. • Industries, governments and stakeholders (NGOs, SPREP) meet in-country as required to discuss issues and actions. • Baseline research on target populations is conducted as a basis for recommendations regarding the carrying capacity of populations to sustain numbers of tourism interactions. 		
Objective 2: Ensure best practice management of whales and dolphins tourism in the PIR		
Actions	Lead	Priority
8.5: Review and distribute Pacific Islands Guidelines for Whale and Dolphin Watching (PIRGWDW) as necessary.	Partners/ SPREP	High

8.6:	Encourage annual stakeholder meetings (Govt, industry, scientists, NGOs) to assess management of the whale watch industry and use as a basis for industry review and reporting.	Members/ Partners	High
8.7:	Encourage licensing and limiting of licenses or permits as a tool for management.	Members/ Partners	High
8.8:	Encourage/support countries to review/develop national guidelines/regulations in line with the SPREP endorsed PIGWDW.	SPREP/ Partners	High
8.9:	Develop and conduct a regional programme for national compliance and enforcement training workshops.	Partners/ SPREP	High
8.10:	Support countries to legislate cetacean watching guidelines into law.	Partners/ SPREP	High

Indicators:

- Stakeholders meetings conducted and reports developed.
- Guidelines reviewed and distributed.
- Licenses limited for management of the industry.
- National guidelines developed based on the regional guidelines and made into national regulations.
- Workshop conducted for national compliance and enforcement of guidelines/regulations.

Objective 3: Whale and dolphin based tourism watching is conducted responsibly with minimum impact and maximum education and economic values.

Actions	Lead	Priority
8.11: Develop a regional programme to conduct national whale watching training for operators and guides/stakeholders.	Partners	High
8.12: Develop measures to reduce contact time with pregnant Females and cow-calf pairs including closed areas.	Members/ Partners	High
8.13: Develop whale watching operator reporting programme to collect useful data (tourists and animal numbers).	Members/ Partners	High
8.14: Support countries to develop an education kit for onboard operations.	Partners	Medium
8.15: Ensure socio-economic benefits of whale and dolphin watching stays or are shared with communities.	Members/ Partners	High
8.16: Assist whale and dolphin watching feasibility studies to explore potential for whale watching tourism in countries.	Partners	High

Indicators:

- Regional programme to conduct national whale watching training for operators and guides/stakeholders established.
- Programme for whale watching operators to collect useful data developed and implemented.
- Educational kit available on board whale watching boats.
- Increased share of communities on from whale and dolphin watching.
- Whale and dolphin watching feasibility studies undertaken in additional members.

Theme 9: National, Regional and International Collaboration and Cooperation		
Objective 1: Promote and enhance national, regional and international coordination, collaboration and partnership for whale and dolphin conservation in the Pacific Islands Region		
Actions	Lead	Priority
9.1: Promote understanding by facilitating effective information sharing mechanisms (e.g. networks) to assist in addressing cross sectoral issues and migratory species conservation.	SPREP/ Members	High
9.2: Encourage and support PICTs in removing internal cross sectoral barriers in order to effectively implement the WDAP at the local and national Government levels.	SPREP/ Members/ Partners	High
9.3: Facilitate PICTs involvement and participation in relevant international and regional meetings and initiatives for whales and dolphins conservation, noting that members are responsible for selecting appropriate representatives to these meetings.	SPREP/ Partners/ Members	Medium
9.4: Promote cooperation and highlight achievements and lessons learned in whale and dolphin conservation at national regional and international fora.	All	High
9.5: Develop linkages and relationships with relevant regional organisations and processes, such as RFMOs (e.g. MoUs, information exchange and cross-sectoral integration).	SPREP/ Partners/ Members	Medium
9.6: Develop partnerships/relationships, e.g. through MoUs, with relevant private sector organisations to reduce threats to whales and dolphins such as by-catch, depredation and marine debris (such as fishing and tourism industries, NGOs).	Members/SP REP/ Partners	Medium
9.7: Ensure integration of whale and dolphin conservation into national, regional and international initiatives including: NBSAPs; National Sustainable Development Strategies; Pacific Islands Regional Oceans Policy; Action Strategy for Nature Conservation, CROP Marine Sector Working Group; RFMOs; NBSAP Working Group). CTI, Micronesian challenge, Oceanscape, Funding opportunities e.g. GEF.	Members	High
9.8: Coordinate and facilitate the compilation of PICTs position for relevant international processes and MEAs on whales and dolphin.	SPREP/ Members/ Partners	High
9.9: Assess members capacity to implement the WDAP, CMS Cetacean MoU, CITES and CBD where relevant, using, e.g. the NCSA process already in place in countries.	Members/SP REP/ Partners	High
Indicators:		
<ul style="list-style-type: none"> • Number of national, regional and international organisations, processes and frameworks incorporating PIR whale and dolphin conservation needs. • Number of national, regional and international partnerships created to support WDAP implementation. • Number of NBSAPs or equivalent strategies integrating WDAP action. • Capacity strengthened to draft, manage and enforce legislation and policy in country / territory. 		