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Regional Workshop of Experts on the
Development of the Marine Mammal Action
Plan for the Wider Caribbean Region

Bridgetown, Barbados, 18 – 21 July 2005

REPORT OF THE WORKSHOP

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INTRODUCTION

1. In keeping with Decisions Nos. 2 and 7 of the Third Meeting of the Contracting Parties (COP) to the Specially Protected Areas and Wildlife (SPA) Protocol (Montego Bay, 27 September 2004) the secretariat in collaboration with the Regional Activity Centre for SPA (SPA/RAC) and with the financial support of the Governments of USA and France and the International Fund for Animal Welfare (IFAW) convened the Regional Workshop of Experts on the Development of the Marine Mammal Action Plan for the Wider Caribbean Region in Bridgetown, Barbados, from 18 to 21 July 2005.
2. The draft Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region (MMA), prepared under the coordination of UNEP-CAR/RCU by an electronic group of experts, was discussed and further developed by the Workshop, for subsequent action by the Third Meeting of the Scientific and Technical Advisory Committee (STAC3) in Caracas, Venezuela, 4-8 October 2005.
3. The Workshop had the following objectives:
 - a) to review and further develop the draft MMA;
 - b) to collect information to update the previous background marine mammal reports developed under SPA:
 - ▣ Elements for the Development of a Marine Mammal Action Plan for the Wider Caribbean: A Review of Marine Mammal Distribution (UNEP(DEC)/CAR IG.20/INF.3); and
 - ▣ Marine Mammals of the Wider Caribbean Region: A Review of their Conservation Status (UNEP (WATER)/CAR WG.22/INF.7)
 - c) to provide a framework for activities, which require regional or global cooperation, while respecting the sovereign rights of participating governments;
 - d) to establish regional cooperation programmes to increase scientific, technical and educational exchange among relevant national, regional and international organizations; and
 - e) to assist governments in the region in their efforts to develop and improve marine mammal conservation policies and practices.
4. The twelve Contracting Parties to the SPA Protocol were invited to nominate experts to participate in the Workshop. Governments which are non-parties to SPA were also invited to attend, as well as regional and international relevant organizations and experts. Annex I includes the list of participants at the Workshop.

AGENDA ITEM 1: OPENING ADDRESS, WELCOME AND PRESENTATION OF PARTICIPANTS

5. The Opening Ceremony and welcome address took place at 11:00 a.m. on Monday, 18 July 2005, at the Conference Room of the United Nations House, in Bridgetown, Barbados. Welcoming remarks were extended by Mrs. Alessandra Vanzella-Khoury, Programme Officer

of the SPAW Programme, Caribbean Environment Programme of the United Nations Environment Programme (UNEP-CEP) who officially declared the Workshop opened. She welcomed the participants and thanked the International Fund for Animal Welfare, and the Governments of United States of America and France for the funds and support provided to make the Workshop possible, as well as the United Nations Development Programme (UNDP) in Barbados, for their logistical support. In her opening remarks she highlighted the seriousness of the issues at hand, reminding the Workshop that when governments in 1991 developed the list of species to be protected under the SPAW Protocol, they agreed to include as an entire group all species of marine mammals present in the Wider Caribbean Region. She noted that the SPAW Protocol was developed by and for the countries of the region and remains the only regional legal agreement on biodiversity conservation for the Wider Caribbean Region. She further highlighted that, as the Regions economical dependence on its natural resources is high, and with the still untapped economic potential of its biodiversity, conservation and sustainable use of those resources should be at the forefront of the national agendas. To conclude, she invited the participants to take full advantage of this unique opportunity of the first regional exchange and dialogue on the conservation of marine mammals, to openly and constructively discuss all the relevant issues in order to develop a plan of action that will not only lead the region to the maintenance and enjoyment of marine mammals for generations to come, but also ensure that the marine mammals of the region will not share a fate similar to that of the extinct Caribbean monk seal.

AGENDA ITEM 2: REVIEW AND APPROVAL OF AGENDA

6. The Workshop was invited to review the agenda of the Workshop as contained in document UNEP(DEC)/CAR WG.27/1. The agenda was adopted as reflected in Annex II to this Report.

AGENDA ITEM 3: ELECTION OF OFFICERS

7. The Workshop elected the bureau of the STAC as the officers of the Workshop:

Chairman:	Mr. Paul Hoetjes	Netherlands Antilles
Vice-Chair:	Mr. Stephen Willoughby	Barbados
Rapporteur:	Mrs. Nadra Nathai-Gyan	Trinidad and Tobago

As the Chairman, Mr. Paul Hoetjes was unable to arrive the day the Workshop begun, Dr. Michael Payne of the U.S. Department of Commerce, Chairman of the COP of the SPAW Protocol chaired for the first day of the Workshop.

AGENDA ITEM 4: INTRODUCTION, BACKGROUND AND CONTEXT

8. The Chairman invited the secretariat to provide a brief overview on the decisions, recommendations and process leading to the development of the “Draft Marine Mammal Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region” (UNEP(DEC)/CAR WG.27/2). Ms. Alessandra Vanzella-Khoury, SPAW Programme Officer provided a general overview of the SPAW Protocol and reminded the Workshop that Articles 11 and 21 of the SPAW Protocol call for the development and implementation of cooperation programmes for protected species, as well as guidelines and criteria for the management of protected species, including migratory species. Annex II of the SPAW Protocol lists all species of marine mammals of the Wider Caribbean as threatened and endangered. In this context, governments have agreed on the need to develop a regional plan for the conservation of marine mammals, through Decisions IV (2) and 2 of the First and Second Meetings of the Contracting Parties of the SPAW Protocol (Havana, Cuba, 27-29 September 2001 and Montego Bay, Jamaica, 6 May 2002, respectively); Decision 1 of the Tenth Intergovernmental Meeting of the Caribbean Environment Programme and the Seventh Meeting of the Contracting Parties of the Cartagena Convention, 7-11 May 2002; and the results of the informal consultation summarized by the Regional Activity Centre for SPAW (SPAW/RAC) in UNEP(DEC)/CAR WG.25/CRP.2 and presented to the Second Meeting of the Scientific and Technical Advisory Committee (STAC 2) in Curaçao in 2003 (Appendix II in UNEP(DEC)/CAR WG.27/2).
9. She highlighted that the two background documents on conservation status, Marine Mammals of the Wider Caribbean Region: A review of Their Conservation Status (UNEP(DEC)/CAR WG.22/INF.7), and Elements for the Development of a Marine Mammal Action Plan for the Wider Caribbean: A Review of Marine Mammal Distribution (UNEP(DEC)/CAR IF.20/INF.3) served as guiding references for the development of the MMAP. The secretariat with the SPAW/RAC and an electronic steering committee coordinated the process taking into account various initiatives and documents (e.g., Mediterranean and SE Pacific Action Plan), Manatee Management Plan for the Wider Caribbean (CEP Technical Report 35), sea turtle recovery Action Plans of WIDECAS, the IUCN Action Plan for Conservation of Marine Mammals and several other reference documents.
10. The objectives of the MMAP were summarized as to: assist governments with efforts on marine mammal conservation practices and policies; provide a framework for activities at national and regional levels; conservation and recovery of all marine mammal species and their habitats; and, establishment of regional cooperation programmes to increase scientific, technical and educational exchanges.
11. She noted that the following areas are being targeted in the MMAP: increase of scientific knowledge; enhance public understanding; development of protective measures; development of marine mammal policy; improvement of law and its application. It was also noted that the broad aims of the MMAP included management of human interactions and use (i.e., assess and mitigate threats, address strandings, taking and captivity issues etc.), and species protection (i.e., improve scientific knowledge, maintain or restore abundance, protect habitats etc).

12. It was emphasized that the MMAP had been developed following the precautionary approach within the context and principles of sustainable development. She outlined the general structure/sections divided into *Issue-Led Actions* and *Species-Led Actions*, as well as sections covering systems and administrative structures and reporting and monitoring. Each section included key objectives; previous conservation actions, including legislation (*to be identified at the Workshop*); actions needed (e.g., *planning, science, community, management and resources and capacity*); and prioritisation, definitions and timetable for actions to be determined at the Workshop.
13. She urged the participants to bear in mind the principles and objectives of the SPAW Protocol, and to remember that this was a first draft of a work in progress. She noted that the Workshop should consider practical implementation and ways to monitor progress and updating, and set priorities for short-term action. With the assistance of the Workshop experts, an Action Plan that is realistic and that will ensure marine mammal conservation in the Wider Caribbean Region (WCR) can be achieved.
14. The participants welcomed the comprehensive preliminary draft of the MMAP and agreed to provide detailed comments under the relevant agenda item. Inquiries were made regarding the existing regional manatee management plan and the context in which it would be taken into account for the MMAP document. The secretariat noted that since the regional plan for the West Indian manatee had been developed over 10 years ago, it was probably necessary to review its progress at this point and consider further action in the context of the MMAP.

AGENDA ITEM 5: BACKGROUND PRESENTATIONS

15. The Chairman invited Dr. Randall R. Reeves to present the document “Distribution and Status of Marine Mammals of the Wider Caribbean Region: An Update of UNEP Documents (UNEP(DEC)/CAR WG.27/INF.3). The purpose of this paper was to update the two background documents: on conservation status (UNEP(DEC)/CAR WG.22/INF.7) and elements for the MMAP (UNEP(DEC)/CAR IG.20/INF.3). He started by noting that although little is known about marine mammals in the WCR, some broad generalizations and working hypotheses to assist the conservation planning process were suggested. It was proposed by the presenter that the region’s marine mammal populations should be ranked in some way to reflect their significance to global and regional biodiversity conservation. By developing a matrix that allows multiple criteria to be taken into account, this could help establish priorities for conservation actions. The approach could be pursued at two levels or in two separate contexts: one of global biodiversity, and the other at a regional scale. On a global scale, the criteria could include: endemism residency (e.g. does the population remain year-round in WCR waters, and if not, how critical is the WCR, as a migratory destination, to the population’s persistence); status (e.g. what is the officially recognized status of the species or population according to global listing schemes; and *scientific importance* (i.e. potential for contributing to scientific understanding relevant to conservation at a global or a regional level).
16. At the regional level a set of criteria could be developed to include the following types of evaluation: socio-economic importance (e.g. tourism, live capture, food source); national biodiversity conservation policy (e.g. does a legal framework exist that obligates authorities

to take management action?); known or suspected threats, whether in the past, ongoing, or anticipated for the near-term future (e.g. deliberate exploitation (killing or live-capture)), offshore military or industrial activity, fisheries operating in the area (especially gillnets or trawls); and, degree of uncertainty regarding the status of the species. Following such a ranking scheme, it is likely that the manatee, the humpback whale, possibly the Bryde's whale, the common bottlenose dolphin, the short-finned pilot whale, and the sperm whale would rank relatively high based on current understanding. Several others, such as some beaked whales, the killer whale, the clymene dolphin (*Stenella clymene*), and the marine tucuxi (*Sotalia fluviatilis guianensis*), would also likely rank high according to at least some of the criteria.

17. General information on manatee conservation in the Wider Caribbean, was presented by Dr. John Reynolds, Chairman, U.S. Marine Mammal Commission and Co-Chair, IUCN Sirenian Specialist Group. The distribution and status of the West Indian manatee is Caribbean wide (22 countries), but very discontinuous. Florida subspecies of *Tm. latirostris* is over 3000 individuals, with four regional subpopulations, two growing, but the larger two stable or possibly in decline. The West Indian or Antillean subspecies *Tm. manatus* is most abundant (perhaps 1000+ individuals) in Belize & SE Mexico with over 100 individuals in another ten countries. They are rare, disappearing, or even extinct in some parts of the range, and probably not increasing anywhere in the range. Florida manatees are among the world's best studied marine mammals with major threats being: habitat destruction/modification (especially warm-water loss, watercraft collisions); harmful algal blooms (possibly contaminants and disease); and, some entanglement. The status of the Antillean manatee is extremely variable among countries and it is relatively poorly studied. Major threats include hunting, habitat destruction, contaminants, and incidental taking by fisheries. Positive aspects for conservation of manatees include dedicated individuals, high visibility of this charismatic megafauna, protective legislation, centers of excellence for research, education, strandings and rehabilitation. He noted that there is a general lack of knowledge about specific regions, lack of a precautionary approach and relative values, and recommended approaches to address these issues. Dr. Reynolds recommended key areas of work to concentrate on: scientific research, abundance/ habitat-use surveys of index areas repeated over time utilizing the cost effective ways that exist; analysis/screening for key contaminants in key locations; and combine this information with general assessments of health and reproductive status as well as to assess and reduce human related mortality and optimize information from stranding networks. Vital is also education and awareness about the value of sirenians, protected areas, enforcement and local support through the involvement of local people as much as possible at every step. He noted that recommendations from the UNEP Technical Report No 35 (1995) also outline priorities, or long-term work.
18. "Major Threats to Marine Mammals in the Wider Caribbean Region: A Summary Report" (UNEP(DEC)/CAR WG.27/INF.4) was presented by Ms. Monica Borobia. Fisheries interactions through bycatch was considered the most immediate and well-documented threat to cetaceans. Key concerns were raised regarding gillnets, however trawls, seines, and longline posed a significant impact on populations as well. She highlighted the lack of systematic monitoring in the WCR that, despite certain efforts in the Gulf of Mexico, continued to be a major problem for the protection of marine mammals in the region. A number of technological programmes with e.g. acoustic deterrent devices (pingers) have been implemented, however these technological options require funds and training, as well as political and public support to be successful. Cooperation with fishery bodies in the region

such as FAO-WECAFC, and continuation of existing observer programmes could assist in enhancing knowledge and raising dialogue.

19. Direct exploitation of cetaceans in the WCR poses another threat given the uncertain knowledge on population numbers, status, lack of life history parameters and abundance estimates. The WCR with its 32 million visitors per year is a major tourism area with concentrations of tourists interested in whale watching in Dominica for sperm whales, and Dominican Republic for humpback whales. Concerns arise when intensive and unmonitored boat traffic occur in areas of reproduction, feeding and socializing of cetaceans increasing the risk of adverse effects to them. However tourism has also contributed to the increasing number of dolphin captivity facilities, which impact populations and increases mortality in captivity as well as during the capture. Live captures is reported of bottlenose dolphins in Cuba, Bahamas and Mexico. This require thorough population assessment and monitoring with involvement of the private sector. Key pollution threats to marine mammals are chemical and oil pollution, disease and biotoxins, and marine debris in the form of derelict fishing nets and ingestion of foreign matter. There is a need need to assess and monitor contaminant exposure and impacts and integrate marine mammal conservation into on-going pollution research/programmes. Habitat degradation due to coastal development, overexploitation of fish, land-based (e.g., agriculture, tourism) and marine sources (e.g., sewage, ballast discharges and dumping), climate change (e.g., sea level rise, hurricanes) were further identified as a major threat, as was noise pollution. Given the limited efforts in addressing ocean noise in the WCR and its transboundary nature, regional cooperation is crucial, especially in terms of raising awareness of the issues as well as adoption and consideration of its effects into management/regulatory instruments and legal frameworks, as appropriate.
20. With the widespread vessel movements in the Caribbean and the risk of collisions with marine mammals, careful analysis of floating and beached carcasses may prove helpful in assessing the occurrence and potential magnitude of marine mammal injuries/mortality from ship strikes, as well as regulatory requirements for the WCR. Final thoughts and challenges presented were on the importance to build ownership of the MMAP within Governments and communities and to avoid a static document. Further, provisions should be included for monitoring with regular reporting and review of progress at SPAW & international meetings, and maximise the integration of marine mammals into existing structures, programmes, and initiatives, regional and national dealing with biodiversity, marine protected areas, tourism and economics. Building new forms of partnership with private sector (e.g. tourism operators, regional bodies—CTO, ACS, CAST) would further assist this process.
21. Following these presentations, the Chair invited comments from participants to query or comment. The delegate from Saint Lucia informed the Workshop that there were indications that the humpback whales of Saint Lucia, could be part of the larger Atlantic stock. The delegates from Saint Lucia and Saint Vincent and the Grenadines further requested that the first paragraph in the document under issues concerning direct hunts stating “*Limited data are available for cetacean fisheries where all catches may not be systematically reported in the Caribbean. Concern about direct takes applies particularly to small and medium –cetaceans, when compared to large whales, which is the responsibility of the IWC*” be clarified as well as the *International Whaling Commission (IWC)* quota figures for 2006/07. Since Saint Lucia and Saint Vincent are the two countries in the Caribbean that have established cetacean fisheries and therefore this statement is referring to the data collection for those two countries. The representatives from Saint Lucia and Saint Vincent stated that data is collected on

cetaceans and in the case of Saint Lucia; there is an established data collection system to collect fisheries data on all fisheries including the cetacean fishery. The representative from IFAW called for caution with regard to the issue of “scientific whaling” as well as direct whaling with nets under the pretence of “by catch”. Attention was also drawn by the Workshop to the direct and indirect impact of cruiseships on marine mammals, as well as the need to address the lack of data on marine mammals in the region.

22. The document “Socio-Economic Assessment of Marine Mammal Utilization in the Wider Caribbean Region: Captivity, Viewing and Hunting” (UNEP(DEC)/CAR WG.27/INF.6) was presented by Ms. Courtney S. Vail of the Whale and Dolphin Conservation Society (WDCS). The paper reviewed three aspects of marine mammal utilization and management in the Wider Caribbean Region: swimming with dolphins and other interactive and captive programs; whale, dolphin and manatee viewing; and hunting. Ms. Vail noted that one of the most rapidly expanding markets for the commercial public display of dolphins is in the Caribbean. She reviewed the welfare concerns associated with captivity, including capture and transport, sources of stress such as restricted space and poor water quality which can lead to reduced longevity. Because most of the dolphins in Caribbean facilities were and are captured from the wild, the issue of marine mammal captivity encompasses not only welfare concerns, but also conservation concerns for the species involved. Increasing numbers of facilities feature public interaction with the animals, which poses a risk to the animals and humans involved in these programmes. Apart from physical injury, the potential for disease transmission exists. The environmental impacts of these programmes need to be evaluated. Studies have shown that dolphin sea pens can damage to nearby coral reefs, and dredging and other environmental alterations can affect the water quality and drainage of nearby areas. Overall, the scientific, economic, educational and environmental costs and benefits of marine mammal captive programs needs to be honestly evaluated within the Region. Furthermore, the demand for live dolphins to supply these programs can be a conservation threat to populations inside and outside of the Region as dolphins continue to be captured from the wild for these programmes.
23. It was noted that when well managed, whale watching has the potential to attract foreign tourists and exchange as well as to encourage the development of an extensive suite of benefits and services. In addition, in many places, whale watching provides valuable, sometimes crucial, income to a community, with the creation of new jobs and businesses. The true value of whale watching can extend far beyond tourist expenditure and include financial, recreational, scientific, educational, cultural, heritage, social, aesthetic, spiritual/psychological, political, environmental quality, ecological services and other values. The presenter further noted that in 1998, an estimated 88,900 people went whale watching in the Wider Caribbean. Total revenues were more than \$10 million USD. Based on the numbers of whale watchers, the average annual increase between 1994 and 1998 was over 87%, many times higher than the world growth rate for whale watching for the 1990s.
24. The presenter noted that by 1999, there were 14 countries in the Caribbean involved in whale watching. In 1999, the most valuable whale watch industry in the Caribbean in terms of total expenditures was in the Dominican Republic (\$5.2 million USD) followed by the Bahamas (\$2.97 million USD). However she clarified that marine mammal tourism, through intensive, persistent and unregulated vessel traffic that focuses on animals while they are resting, feeding, nursing their young, or socializing can disrupt those activities, and have a long-term impact on the populations they target. Many operators are from overseas and it is not always

clear how programs based overseas benefit the local economy or regional conservation efforts.

25. With regard to hunting, the presenter noted that only a few countries in the region currently conduct some form of 'whaling' operation where cetaceans are killed for their meat for consumption. Saint Vincent is granted an 'Aboriginal Subsistence' by the International Whaling Commission (IWC) that allows them to take up to five humpbacks a year when certain conditions are met, and also hunts small cetaceans, mainly black fish (pilot whales). Saint Lucia similarly maintains a hunt for a variety of small cetaceans including blackfish species (pilot pygmy and false killer whales), and dolphins (bottlenose, Atlantic spotted, Fraser's and common dolphins). Dominica continues to opportunistically hunt for a variety of small cetaceans including pilot whales, spotted and spinner dolphins. The representative from St. Vincent and the Grenadines stated that the figure given for the aboriginal subsistence annual quota for humpback whales was incorrect and that the quota set by the IWC is 4 humpbacks per year.
26. To conclude, the presenter recommended that the MMAP address the issues of captive marine mammal programmes, whale and other marine mammal watching, and marine mammal hunting.
27. Following the presentation the Cuban delegation informed the Workshop that reports have been received about the introduction of *Zalophus californianus* in the Wider Caribbean, one of which was through the escape of a specimen from the National Aquarium in Cuba. This animal was recaptured 72 hours later, but later died on 31 August 2001, pathology reports indicated aging as the cause, after having been in the institution for 27 years (average estimated age 29-30 years). She also informed the Workshop that there are no captivity programmes in Cuba and that capture of live dolphins in their country is done according to national legislation and systematically recorded. The delegate offered to make all this data available to the secretariat for the purposes of the MMAP. She noted that with regard to captivity, the management and treatment of the animals was a key issue and this was of concern to her government, in particular for animals they had captured and sold to other countries. The delegates from St. Lucia and St. Vincent and the Grenadines also informed the Workshop that data is collected on all fisheries and Saint Lucia has a comprehensive data collection system for its fisheries and that it was impossible for any country to have 100% reporting for any fishery. Data is available particularly for large cetaceans in the case of St. Vincent. They noted that hunting of certain species could be compatible with conservation if managed in a regulated manner. The St. Vincent and Grenadines delegate also indicated that by-catch data is reported to the IWC and therefore there is the need to source the data. Other comments made by the participants included the need for research and monitoring to assess with certainty the impacts of captivity programmes, to assess implementation of the exemptions under Article 11(2) of the SPAW Protocol, and the need for assistance with tagging of marine mammals to facilitate research and monitoring. It was agreed by the participants that the MMAP must include actions to ensure the welfare of the animals as a primary concern.
28. "Insights on Marine Mammals of the WCR (including the Gulf of Mexico) Derived from Whaling History Documents" (UNEP(DEC)/CAR WG.27/INF.8) was presented by Dr. Randall Reeves. He noted that American commercial whalers began visiting the WCR in about 1760 and hunted humpback whales around the West Indies and along the Spanish

Main, and sperm whales and blackfish (pilot whales) in these and many other parts of the region, for a period of nearly 150 years. Voyage logbooks and other period documents provide a unique window into historical animal distribution and relative abundance. These types of records have been intensively examined previously for data on humpback whales, but not for insights on other marine mammal species in the Caribbean and Gulf of Mexico. The presenter summarized some aspects of the history of humpback and sperm whaling and suggested ways of improving baseline knowledge of the region's marine mammal fauna through logbook studies. He highlighted that insights gained could be relevant to: (1) the ongoing present-day fisheries for toothed whales in St. Vincent, St. Lucia and other islands, which are direct outgrowths of the early American open-boat fishery; (2) impact studies that are underway, particularly in the northern Gulf of Mexico, out of concern about the potential environmental effects of offshore oil and gas development; and (3) the possibilities of 'scientific whaling' (e.g. for resident Bryde's whales). He continued by mentioning that in addition to information on humpback, sperm, and pilot whales, logbooks can provide data on distribution and relative abundance of non-target species including 'finback' whales (as the Bryde's whale and other *Balaenoptera* spp. were called by the early whalers) and "cowfish" (as bottlenose dolphins were called). The delegate from Saint Lucia stated in response to Dr. Reeves assertion that there was no proposal for scientific whaling in the Caribbean from the Japanese or otherwise and that this was probably a misinterpretation. The islands of the OECS are presently conducting a project under the FAO- The Lesser Antilles Pelagic Ecosystem project (LAPE) which is looking at the pelagic marine ecosystems and interactions of top predators with these systems which include cetaceans. Part of this project is a diet study which is looking into the diet of cetaceans and large fish like tunas and marlins and that the cetaceans being studied were cetaceans caught in the fishery and it was this project that was being discussed in Trinidad. Mr Paul Fanning, Project Manager for the LAPE project also went on to state that the project did not encourage the capture of small cetaceans for this study and that all samples obtained were from cetaceans caught in the fishery.

29. The representative from Colombia, gave a presentation on behalf of the National Programmes of Management and Conservation of Manatees in Colombia. Although references exist about the presence, status and distribution of the manatee in the country, the information is fragmented, local, barely published and mostly restricted for the scientific and localized community. The information indicates that there is a possible reduction in the genetic variability, which could make the manatee the aquatic mammal in greatest danger of extinction in the Caribbean. A number of publications have been produced under the National Programme, including a management plan. The Plan includes: general information on the manatee, *Trichechus manatus manatus* and *Trichechus ininguis*; diagnostics on the situation of the two species of manatees present in Colombia; listing of animals in captivity and semicaptivity; main threats and causes of mortality of the manatees in Colombia; management and conservation programme. The aim of the programme is to accomplish the conservation and the sustainable management of the manatee by 2020, with the active participation of the national, local environmental authorities, the NGOs, the private as well as the public sector, based on scientific and traditional knowledge, for the benefit of the communities that live in the river basins where the Antillean manatee and the Amazon manatee are distributed. Partners and donors in this effort include e.g. CITES, Ramsar, SPAW, CBD and IUCN, as well as national NGOs, regional environmental agencies, research institutions and universities. In closing he informed the Workshop of the national stranding network and the work and progress, which includes capacity building, involving key

stakeholders. To close he also outlined the main elements of the multilateral initiative in the South East Pacific for the conservation of humpback whales, in which Colombia is an active participant.

30. One of the delegates from Cuba, Ms. Nirka López León presented the marine mammal research activities coordinated by the National Aquarium in their country. She highlighted that marine mammal research up to the first half of the XX Century was characterized by scarce confident information, species identification problems, and no ecological studies. More comprehensive steps in 1983-1996 included morphometric characterization of the species in the Sabana -Camagüey Archipelago (ASC), records of stranded and observed species along the Cuban coasts, health assessment of natural populations in the ASC from clinical and microbiological studies, and preliminary identification of genetic stocks in ASC and Guacanayabo Gulf. Further steps in 1996-2004 included the creation of an archival of sightings in coastal communities at Sabana-Camagüey Archipelago, distribution and abundance of dolphins *Tursiops truncatus* in Key Coco and adjacent areas, distribution and abundance of dolphins *Tursiops truncatus* at Matanzas North Coast, and monitoring of dolphins *Tursiops truncatus* population at Matanzas North Coast. Studies of distribution of the West Indian manatee *Trichechus manatus manatus* in North Western and South eastern shores of Cuba were further implemented to increase the knowledge on the status, distribution and threats of the species to contribute to their conservation and to evaluate potential areas for future research and environmental education activities. Illegal hunt, purse seine and pollution were identified as the main threats to manatees. She also informed the Workshop that a marine mammal necropsy Workshop was convened in Havana, 17-20 January 2005, which trained several specialists at the National Aquarium.
31. The presenter also outlined present and future steps, including: life quality evaluation of the bottlenose dolphins *Tursiops truncatus* in captivity and semi-captivity conditions in Cuba; population and social structure of the species in the Cuban Archipelago, using new molecular markers; abundance and distribution of the species in ASC using radio tracking and aerial surveys, and improvement of the Management Plan for the species in Cuba from an integrated perspective. The presenter summarized the legal framework for marine mammal protection. She also noted that limitations for research in Cuba are primarily due to lack of financial support, limited expertise training, difficulties to access new technologies, lack of updated bibliography (until 1998), and few modern diagnosis aids. Among the most successful activities presented were those on education and public awareness in coastal communities, for children and the third age, such as the scientific forums for kids; an educational television series “Conozcamos el Mar”; the Programme “University for all” course: “The sea and its resources”; an environmental education Handbook for coastal communities, as well as various leaflets and hand-out documents which were distributed at the Workshop. The Workshop thanked the representatives from Colombia and Cuba for their presentations and congratulated them on their efforts. Participants also welcomed the offer made by the representative from Cuba to share the information and data of their studies and monitoring activities, including those on live captures.
32. The representative from the Convention on Migratory Species (CMS), gave a presentation outlining the objectives and the organizational structure of the Convention. The Convention on the Conservation of Migratory Species of Wild Animals (also known as CMS or Bonn Convention) aims to conserve six (6) primary species groups: migratory birds, terrestrial mammals, marine mammals, marine turtles, fish and insects. throughout their range. It is an

intergovernmental treaty under the United Nations Environment Programme, concerned with the conservation of wildlife and habitats on a global scale. Migratory species threatened with extinction are listed on Appendix I of the Convention, and migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention. For this reason, the Convention encourages states to conclude global or regional Agreements, and acts in this respect as a framework Convention. The Agreements can range from agreements which are legally binding treaties to less formal instruments, such as Memoranda of Understanding, and can be adapted to the requirements of particular regions. Three Agreements regarding marine mammals exist namely Cetaceans of the Mediterranean Sea, Black Sea and Contiguous Atlantic Area (ACCOBAMS), Small cetaceans of the Baltic and North Seas (ASCOBANS), and Seals in the Wadden Sea. ASCOBANS covers all species, subspecies or populations of small cetaceans in the Baltic Sea and North Sea, with the exception of the Sperm whale (*Physeter macrocephalus*). ACCOBAMS was concluded in 1996 and entered into force on 1 June 2001. It is the first Agreement of its kind to bind the countries of these two sub-regions to work together on an environmental problem of common concern. The secretariat is located in Monaco and the agreement covers large and small cetaceans. It applies to all cetaceans that have a range that lies entirely or partly within the Agreement area or that accidentally or occasionally frequent the Agreement area. Species covered include the Sperm whale (*Physeter macrocephalus*), Fin whale (*Balaenoptera physalus*) and the Long-finned pilot whale (*Globicephala melas*). The presenter concluded by noting the absence of Parties to the CMS in the WCR and highlighting the wish to explore cooperation with the SPAW Protocol, through the development of a Memoranda of Cooperation.

33. The representative of the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), presented "Progressive steps forward to protect whales and dolphins in the Mediterranean Sea, Black Sea and contiguous Atlantic Area". He noted that with 82 cetacean species known throughout the world, the Mediterranean and Black Seas can be considered highly diversified with regard to the Cetacean population, with 21 of these species having been spotted at least once. These populations are however under high pressure from fishing through incidental capture, overexploitation of the fishing stock, chemical pollution, persistent synthetic materials, the intensification of maritime traffic and the development of 'whale-watching'. Therefore countries in those regions considered it essential to identify priority actions to protect these species. The purpose of the ACCOBAMS Agreement is to reduce the threat to cetaceans in Mediterranean and Black Sea waters and improve the knowledge on these animals. It is the first agreement binding the countries in these two subregions, enabling them to work together on an issue of general interest. The agreement requires the States to implement a detailed conservation plan for Cetaceans, based first on respect of legislation banning the deliberate capture of cetaceans in fishing zones by their flag vessels or those subject to their jurisdiction, on measures for minimizing incidental capture and, finally, on the creation of protected zones, important for the feeding, breeding and birth of Cetaceans. This approach combines both the protection of threatened species and the institution of reinforced geographic protection. Governments are also undertaking to assess and manage the interactions between humans and Cetaceans, conducting research and continuous monitoring, developing programmes to inform, train and educate the public and setting up emergency response measures.
34. He also provided information regarding the Pelagos Sanctuary for Mediterranean Marine Mammals, which is a vast marine protected area extending over 87,500 km² of sea surface in

a portion of the north-western Mediterranean Sea comprised between south-eastern France, Monaco, north-western Italy and northern Sardinia, and encompassing Corsica and the Tuscan Archipelago. The Sanctuary waters include the Ligurian Sea and parts of the Corsican and Tyrrhenian Seas, and contain the internal maritime and territorial waters of France, Monaco and Italy, as well as the adjacent high seas (53%). Compared to the rest of the Mediterranean, this marine area is characterised by very high levels of offshore primary productivity, caused by a permanent frontal system, and consequently up-wellings of deep, nutrient-rich waters. The primary production supports a highly diversified zooplankton fauna, including gelatinous macrozooplankton and swarming euphausiid crustaceans (krill), *Meganyctiphanes norvegica*, which in turn attracts to the area various levels of predators, including mammals. The Sanctuary contains habitat suitable for the breeding and feeding needs of the entire complement of cetacean species regularly found in the Mediterranean Sea. Obstacles to the implementation of conservation measures are that most of the habitats of the marine mammals rest in international waters, beyond 12 n.m. from the coast, and as Exclusive Economic Zones (up to 20 n.m. from the coast) have not been created, management and conservation of high sea resources are problematic. He concluded by offering the experiences from the Mediterranean as the MMAP for the Wider Caribbean is further developed and implemented and proposing cooperation and collaboration between ACCOBAMS and the MMAP.

AGENDA ITEM 6: PRESENTATION OF THE DRAFT MARINE MAMMAL ACTION PLAN (MMAP) AND PROCESS FOLLOWED FOR ITS DEVELOPMENT

35. The Chairman invited Dr. Nathalie Ward, consultant of the UNEP-CAR/RCU secretariat to present the “Draft Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region” (UNEP(DEC)/CAR WG.27/2). In her presentation, Dr. Ward explained outlined the main components of the document and highlighted the areas that required further input from the Workshop participants. The Workshop welcomed the draft MMAP as an important effort to initiate discussions and commended the secretariat for the comprehensive nature of the draft. The participants held a general discussion on the MMAP, as well as on the mechanisms and structures for its implementation. It was agreed that the issue-led rather than species-led actions should be chosen for the MMAP.
36. In order to maximize the input from the participants, it was agreed to work in three working group sessions, each one focusing on a different set of topics. Clear guidelines for the Working Groups were developed to ensure harmonization. Each Working Group appointed a Chair and a Rapporteur and was asked to also work on a prioritization of actions, including a spreadsheet on issues linked to species and to define timelines with a clear outline of responsibilities. The three themes for the Working Groups were: 1) issue-led actions, 2) systems and administrations, and 3) structure and reporting.
37. Group 1 addressed a) strandings and fisheries removal (direct take, hunting, indirect take, live captures), vessel strikes; b) tourism and captivity; c) pollution and marine mammal health, research, acoustic disturbance-underwater noise, climate change; and, d) coastal development and habitat degradation, and marine protected areas.

38. Group 2 addressed a) national legal-governance, internal structures and systems; b) institutional and technical capacity, compliance and law enforcement; c) information management, partnerships, public relations and education; and d) regional and global issues and linkages.
39. Group 3 addressed a) implementation (networking, structure), and reporting and monitoring; and b) operational definitions (to develop list of definitions required within the MMAP) and development of criteria to assess recovery.
40. The Chairman directed that focus should be on recommendations for dealing with priority issues. Three (3) starting points were proposed dealing with status of species of greatest vulnerability which are not known, impact on species (well coordinated network can help), and need for external group to design study to determine relative abundance. It was also noted that there is a need to collect data on fisheries catch in the WCR through inventory of large vessels. The need for a compatible database to ensure standardization was proposed and it was noted that the Specially Protected Areas RAC in the Mediterranean's electronic database could be adapted.
41. It was also agreed that a draft ranking of threats and species should be developed by the Working Groups and presented to the plenary for discussion.

AGENDA ITEM 7: RECOMMENDATIONS AND FOLLOW-UP ACTIONS

42. The revised Draft Marine Mammal Action Plan (UNEP(DEC)/CAR WG.27/2/Rev.1) with the inputs and agreed amendments provided by the Working Groups, as well as issues requiring further discussion incorporated with the assistance of the drafting group were presented to the Workshop for final review and adoption. The revised Action Plan as agreed by the Workshop is contained in UNEP(DEC)/CAR WG.27/2/Rev.3 and it was agreed that it should be presented for finalization to the upcoming Third Meeting of the Scientific and Technical Advisory Committee to the SPAW Protocol planned for 4-8 October 2005 in Caracas, Venezuela.
43. The Workshop also provided recommendations on the follow-up actions and process required for the development of the revised draft MMAP. The Recommendations of the Workshop as agreed are appended as Annex IV to this Report. It was agreed that the electronic Working Group would continue working on the issues requiring further discussion, and that participants of the Workshop not already included in the Working Group can request the SPAW/RAC to be included in the electronic Working Group.
44. The Draft marine mammal ranking was presented for comments to the Workshop. It was noted that it needs to be refined and additional criteria included. However, it can provide a useful regional overview and countries can then use as a prototype to establish national priorities.
45. The Workshop agreed that the Rapporteur and the secretariat circulate to the participants for review the draft report of the Workshop within the next few weeks and that comments are provided for its subsequent finalization no later than September, 2005.

AGENDA ITEM 8: CLOSING REMARKS

46. In his closing remarks, the Chairman of the Workshop, thanked all participants for their inputs, dedicated work during the Workshop and valuable contributions to the Workshop and the MMAP.
47. On behalf of the Coordinator Mr. Nelson Andrade Colmenares, the secretariat thanked IFAW and the Governments of the United States of America and France for their financial support which made possible the convening of the Workshop. The secretariat further thanked the Chair for his guidance during the deliberations, the Rapporteur, and all the participants for their work prior and during the Workshop, and encouraged them to continue to be active in the process of development of the MMAP. She also thanked resource people and presenters for the very useful information and expertise provided to the Workshop, as well as the team of the SPAW/RAC for their continued support, and the interpreters.
48. The Workshop was closed at 5.30 pm, on Thursday 21 July 2005, by the Chairman.

ANNEX 1

LIST OF PARTICIPANTS

SPA W CONTRACTING PARTIES/PARTES CONTRATANTES DE SPA W

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ANNEX II**AGENDA****Monday, 18 July 2005**

- 8:30-9:30 AM ▪ Registration (continues for late arrivals)
- 9:30-10:30 AM ▪ Opening address, welcome, and presentation of participants (**Agenda Item 1**)
- Review and approval of agenda (**Agenda Item 2**)
- Election of officers (**Agenda Item 3**)
- Introduction, background and context (**Agenda Item 4**)
- 10:30-11:00 AM COFFEE BREAK**
- 11:00-12:30 PM Background presentations (**Agenda Item 5**)
- Distribution and status of marine mammals
- Regional Manatee Management Plan, *Sirenia*
- 12:30-2:00 PM LUNCH**
- 2:00- 3:30 PM Background presentations (**Agenda Item 5**) (continued)
- Major threats to marine mammals
- Fishery interactions
- 3:30-4:00 PM COFFEE BREAK**
- 4:00- 5:00 PM ▪ Socio-economic aspects
- Legal issues and institutional capacity
- 5:00–6:30 PM ▪ Presentation of the Draft Marine Mammal Action Plan (MMAP) and process followed for its development (**Agenda Item 6**)
- Discussion (working groups if necessary)
- 7:30 PM ▪ Cocktail Reception at the Amaryllis Beach Resort**

Tuesday, 19 July 2005

- 9:00 -10:30 AM ▪ Discussion of the draft MMAP (in working groups, if necessary) (**Agenda Item 6** continues)

10:30-11:00 AM COFFEE BREAK

- 11:00-12:30 PM ▪ Discussion of the draft MMAP (in working groups, if necessary) (**Agenda Item 6** continues)

12:30-2:00 PM LUNCH

- 2:00- 5:30 PM ▪ Discussion of the draft MMAP (in working groups, if necessary) (**Agenda Item 6** continues)

Wednesday, 20 July 2005

- 9:00-10:30 AM ▪ Discussion of the draft MMAP (in working groups, if necessary) (**Agenda Item 6** continues) and/or preparation of working group reports

10:30-11:00 AM COFFEE BREAK

- 11:00-12:30 PM ▪ Summary of the discussions on the draft MMAP (presentation of the documents and/or recommendations developed by the working groups) (**Agenda Item 6**)

12:30-2:00 PM LUNCH

- 2:00- 5:30 PM ▪ Preparation and discussion of the final draft documents (draft MMAP and others if necessary) (**Agenda Item 6**)

Thursday, 21 July 2005

- 9:00-10:30 AM ▪ Presentation and discussion of the final draft documents (**Agenda Item 6**)
COFFEE BREAK

10:30-11:00 AM

- Approval of draft MMAP

11:00-12:30 PM

LUNCH

12:30-2:00 PM

- 2:00- 4:30 PM ▪ Recommendations, follow-up actions (**Agenda Item 7**)
▪ Closing remarks (**Agenda Item 8**)

ANNEX III

LIST OF DOCUMENTS

Working Documents

UNEP(DEC)/CAR WG.27/1

Provisional Agenda

UNEP(DEC)/CAR WG.27/2

Draft Action Plan (MMAP) for the Conservation of Marine Mammals in the Wider Caribbean Region

UNEP(DEC)/CAR WG.27/3

Draft Recommendations of the Meeting (*to be prepared during the Meeting*)

Information Documents

UNEP(DEC)/CAR WG.27/INF.1

Provisional List of Documents

UNEP(DEC)/CAR WG.27/INF.2

Provisional List of Participants (*to be prepared during the meeting*)

UNEP(DEC)/CAR WG.27/INF.3

Distribution and Status of Marine Mammals of the Wider Caribbean Region: An Update of UNEP Documents

UNEP(DEC)/CAR WG.27/INF.4

Major Threats to Marine Mammals in the Wider Caribbean Region: A Summary Report

UNEP(DEC)/CAR WG.27/INF.5

A Review of Fisheries By-Catch of Marine Mammals In The Wider Caribbean Region

UNEP(DEC)/CAR WG.27/INF.6

Socio-Economic Assessment of Marine Mammal Utilization in the Wider Caribbean Region: Captivity, Viewing and Hunting

UNEP(DEC)/CAR WG.27/INF.8

Insights on Marine Mammals of the Wider Caribbean Sea Region (including the Gulf of Mexico). Derived from Whaling History Documents

Reference Documents

UNEP(DEC)/CAR WG.27/REF.1

Marine Mammals and Noise

UNEP(DEC)/CAR WG.27/REF.2

Caribbean Stranding Network: Status

UNEP(DEC)/CAR WG.27/REF.3

Marine Mammals and Health

UNEP(DEC)/CAR WG.27/REF.4

Fisheries as Food Base for Marine Mammals

UNEP(DEC)/CAR WG.27/REF.5

Summary of Non-Lethal Techniques for the Study of Cetacean

UNEP(DEC)/CAR WG.27/REF.6

IFAW Non-Lethal Techniques References

UNEP(DEC)/CAR WG.27/REF.7

Synthesis of Cetaceans off the Island of Martinique, French West Indies

UNEP(DEC)/CAR WG.27/REF.8

Sperm Whales in Dominica: A Case Study

UNEP(DEC)/CAR WG.27/REF.9

The Conservation Value of Investigating Marine Mammal Strandings

UNEP(DEC)/CAR WG.27/REF.10	El Santuario de Mamíferos de la República Dominicana: Garantía de Conservación para las Ballenas Jorobadas en el Caribe (Spanish only)
UNEP(DEC)/CAR WG.27/REF.11	Case Study Illustrating socio-economics and sustainable utilization of marine mammal resources
IUCN, PGCS No. 2, 2004	The Precautionary Principle in Biodiversity Conservation and Natural Resource Management
RCEP, Cm6392, 2004	Turning the Tide: Addressing the Impact of Fisheries on the Marine Environment (25 th Report, Royal Commission on Environmental Pollution, Environmental Effects of Marine Fisheries)
ACCOBAMS, Nov. 2004a	Guidelines for the Development of National Networks of Cetacean Strandings Monitoring
ACCOBAMS, Nov. 2004b	Guidelines for Commercial Cetacean-Watching Activities in the Black Sea, the Mediterranean Sea and Contiguous Atlantic Area
ACCOBAMS 2001	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area. Presentation and official texts Ed. ACCOBAMS Secretariat, Monaco 124pp.
UNEP-MAP RAC/SPA, 1992	Action Plan for the Conservation of Cetaceans in the Mediterranean Sea. Ed. RAC/SPA Tunis. 24 pp
UNEP-MAP RAC/SPA, MedNature 2 CIC, Venezuela, 2005	Cetacean Strandings in the Mediterranean Sea Informe Técnico de varamientos de cetáceos en el estado Nueva Esparta, Venezuela, 2000-2004. Informe Técnico del Centro de Investigación de Cetáceos (CIC). (Spanish only)
CIC, Venezuela, 2003a	Atención de varamientos de cetáceos vivos en el Estado Nueva Esparta 1995-2002. Informe Técnico del Centro de Investigación de Cetáceos (CIC). (Spanish only)
CIC, Venezuela, 2003b	Primer registro de ballena cabeza de melón en el Parque Nacional Archipiélago de los Roques (segundo registro de la especie en costas venezolanas). Informe Técnico del Centro de Investigación de Cetáceos (CIC). (Spanish only)
Venezuela, 1996	Un caso de malformaciones óseas en delfín estuarino (<i>Sotalia fluviatilis</i>) en el estado Zulia (Spanish only)
LAS/Eccea/CBI.03EDD	Sanctuaire pour les mammifères marins dans les eaux territoriales françaises de la Caraïbe (French only)
UNEP/CEP, 1993	Illustrations of Legislative Language for Nationals Implementation of the SPAW Protocol in the Wider Caribbean
UNEP(DEC)/CAR WG.25/CRP.2	Proposed Activities for Consideration in the Development of the SPAW Marine Mammal Action Plan
UNEP(WATER)/CAR WG.22/INF.7	Marine Mammals of the Wider Caribbean Region: A Review of Their Conservation Status

UNEP(DEC)/CAR IG.20/INF.3	Elements for the Development of a Marine Mammal Action Plan for the Wider Caribbean: A Review of Marine Mammal Distribution
UNEP(OCA)CAR WG.13/4	Assessment of the SPAW Protocol for the Development of Relevant National Legislation
UNEP(DEC)/CAR WG.25/6	Report of the Second Meeting of the Scientific and Technical Advisory Committee (STAC) to the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region (Curaçao, Netherlands Antilles, 3–6 June 2003)
UNEP(DEC)/CAR IG.21/INF.3	Report of the Second Meeting of the Contracting Parties (COP) to the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region. (Montego Bay, Jamaica, 6 May 2002)
UNEP(DEC)/CAR IG.23/4	Report of the Third Meeting of the Contracting Parties (COP) to the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region (Montego Bay, Jamaica, 27 September 2004)
UNEP(DEC)/CAR IG.20/7	Report of the First Meeting of the Contracting Parties (COP) to the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region (Havana, Cuba, 24-25 September 2001)
UNEP(DEC)/CAR WG.23/6	Report of the First Meeting of the Scientific and Technical Advisory Committee (STAC) to the Protocol Concerning Specially Protected Areas and Wildlife (SPAW) in the Wider Caribbean Region (Havana, Cuba, 27 – 29 September 2001)
UNEP, 1995	Regional Management Plan for the West Indian Manatee, <i>Trichechus manatus</i> (CEP Technical Report No. 35)
UNEP, 1983	Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention) and Protocols

ANNEX IV

RECOMMENDATIONS OF THE WORKSHOP

Having convened the Regional Workshop of Experts on the Development of the Marine Mammal Action Plan (MMAP) for the Conservation of Marine Mammals in the Wider Caribbean Region (Bridgetown, Barbados 18-21 July 2005);

Having reviewed the Draft Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region (UNEP(DEC)/CAR WG.27/2);

Taking into consideration with appreciation the information and reference documents available for the Workshop as listed in UNEP(DEC) WG.27/INF.1;

Recognizing that many of the countries in the region are developing countries with limited resources and institutional capacity;

The Workshop recommends that:

1. The draft MMAP as revised by the Workshop be presented to the Third Meeting of the Scientific and Technical Advisory Committee of the SPAW Protocol (STAC 3), 4-8 October 2005, for consideration and finalization;
2. The current electronic Working Group be expanded to include other interested experts and continues working in collaboration with the SPAW/RAC and the secretariat for any further refinement and progress which could be required by the STAC for MMAP development;
3. In light of the need to address a number of priority issues regarding marine mammal conservation in the WCR, the following actions be implemented as soon as possible and not wait until the adoption of the MMAP:
 - a. The SPAW/RAC in collaboration with Governments and relevant organizations compile and make available the following:
 - i. Bibliography of relevant marine mammal literature in the WCR;
 - ii. Relevant conservation, education and public awareness materials;
 - iii. Guidelines and criteria associated with captivity;
 - iv. Protocols and techniques for responding to strandings; and
 - v. Research protocolsnoting that this process is ever-evolving.
 - b. The SPAW/RAC and the secretariat in collaboration with governments and relevant organizations develop and make available a compilation of capacities, capabilities of countries, and institutional support using *inter alia* the results of the questionnaire (which should also be submitted to non-Parties to complete as possible), and other relevant material;

- c. The secretariat develops a training programme focused on strengthening the national capacities to address marine mammal issues, in particular strandings, and research, following the model of the MPA Training of Trainers Programme under SPAW;
 - d. Conservation actions for the West Indian manatee should remain a priority and the progress of the current management plan of 1995 be reviewed and considered as an integral part of the MMAP;
 - e. The SPAW/RAC and secretariat develop stronger linkages with relevant institutions (e.g. fisheries bodies, academia, NGOs, etc.) with a view to develop a comprehensive database in the region with regard to marine mammal status and distribution, in particular on the abundance of species of greatest vulnerability and the impact on these species, including catch statistics (direct and bycatch), live capture data, inventory of captive marine mammals, and fishing type and effort;
 - f. Parties develop a national and the secretariat promotes a regional stranding network taking into consideration relevant regional and national efforts in this regard in the Wider Caribbean Region and with a view to strengthen them where appropriate.
4. The secretariat and the STAC address the following topics as the MMAP is further developed:
- a. To include a preamble to clarify that actions within the MMAP will be implemented by countries within the context of their national priorities and capabilities;
 - b. Given the expense of studies on health/contaminants, these should only be initiated after careful and cost-effective planning and solid experimental design (work in important index areas and then carefully extrapolating as appropriate will be useful);
 - c. Recognizing that there are indirect and direct effects of ship traffic generally on marine mammals e.g. vessel strikes, discharges, noise pollution and habitat degradation, particular attention should be given to the potential effects of cruise ships, which have not generally been characterized or addressed to date;
 - d. Wherever guidelines are to be developed they should take into account existing national, international and regional programmes and initiatives for the transfer of experiences and best practices relevant to the WCR;
 - e. Explore the possibility of adapting the existing Mediterranean database format on strandings (MEDACES) of SPA RAC (Barcelona Convention – UNEP-MAP) to be utilized in the implementation of the MMAP;
 - f. In formulating the definitions of the terms identified by the Workshop, terminology as presented in existing MEAs and other fora be used as much as possible;
 - g. The MMAP be generally ambitious but specific goals and actions be realistic, practical and useful in terms of addressing specific conservation needs, as it should be considered as a dynamic and evolving process.

- h. Encourage Parties to establish where appropriate additional transboundary marine protected areas devoted to marine mammal conservation.
5. With regard to implementation of the MMAP, a dedicated officer (contract or secondment) within the secretariat or the SPAW/RAC or at an alternative sponsored host location, be put in place to provide leadership and coordination for the continued development and implementation of the MMAP;
6. The implementation structure of the MMAP should consider and benefit from the experiences of the WIDECAST network;
7. The secretariat in collaboration with the SPAW/RAC, and with support from the governments and relevant organizations, actively fundraise to assist with the implementation of the identified priorities and further development and long-term implementation of the MMAP;
8. In their fundraising efforts both the secretariat and governments, explore possibilities with the private sector as appropriate, as well as through existing national and regional projects and initiatives which could be relevant to the objectives of the MMAP and interested in establishing partnerships (e.g. the FAO regional projects on reducing by catch on shrimp trawling and on the ecosystem approach to managing pelagic fisheries, national or regional GEF projects, etc.)
9. To highlight funding priorities, countries are encouraged to submit 1-page proposals for pilot marine mammal projects, for consideration at the upcoming STAC meeting, with a view to get some results and establish a track record which will then be positively viewed by funding agencies e.g. GEF. In some cases, it may be appropriate to incorporate other species or systems into marine mammal-focused proposals;
10. When seeking funding for MMAP implementation, care must be taken by the secretariat and governments that donors do not influence the process;
11. The secretariat establish close collaboration with the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) and other relevant organizations given the experiences and resources that could be made available for the development and implementation of the MMAP;
12. The secretariat explore the possibility of a Memorandum of Cooperation between the Convention of Migratory Species (CMS) and the SPAW Protocol, with a view to furthering the development of the MMAP;
13. If the UNEP Global Marine Mammal Action Plan is revitalized, the MMAP of the WCR develops synergies with this global initiative with a view to strengthen and harmonize regional approaches;
14. All background and reference documents of the Workshop be updated or revised as appropriate, and made available through the CEP website before the upcoming STAC3 Meeting.

15. With regard to the prioritization of species-led actions:

- the regional marine mammal ranking developed, takes into account additional criteria available to be incorporated into Section 3 of the MMAP, and be used as a guide for action on priority species; and
- This matrix, with appropriate annotations, be used by countries to do the ranking within their national context and could be used for reporting within the context of the MMAP, and this national ranking be considered when developing the regional ranking.