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# **Report of the Nineteenth Meeting of the Committee for Environmental Protection (CEP XIX)**

**Santiago, Chile, May 23 – 27, 2016**

- (1) Pursuant to Article 11 of the Protocol on Environmental Protection to the Antarctic Treaty, Representatives of the Parties to the Protocol (Argentina, Australia, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, China, the Czech Republic, Ecuador, Finland, France, Germany, India, Italy, Japan, the Netherlands, New Zealand, Norway, Monaco, Peru, Poland, Portugal, the Republic of Korea, Romania, the Russian Federation, South Africa, Spain, Sweden, Ukraine, the United Kingdom, the United States, Uruguay, and Venezuela) met in Santiago, Chile, from 23 to 27 May 2016, for the purpose of providing advice and formulating recommendations to the Parties in connection with the implementation of the Protocol.
- (2) In accordance with Rule 4 of the CEP Rules of Procedure, the meeting was also attended by representatives of the following Observers:
  - Contracting Parties to the Antarctic Treaty which are not a Party to the Protocol: Colombia, Malaysia, Switzerland and Turkey;
  - the Scientific Committee on Antarctic Research (SCAR), the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR), and the Council of Managers of National Antarctic Programs (COMNAP); and
  - scientific, environmental and technical organisations: the Antarctic and Southern Ocean Coalition (ASOC), the International Association of Antarctica Tour Operators (IAATO), the International Hydrographic Organization (IHO), and the World Meteorological Organization (WMO).

## **Item 1: Opening of the Meeting**

- (3) The CEP Chair, Mr Ewan McIvor (Australia), opened the meeting on Monday 23 May 2016 and thanked Chile for arranging and hosting the meeting in Santiago.
- (4) The CEP Chair noted that the meeting was taking place during the year that marks the 25<sup>th</sup> anniversary of the adoption of the Protocol on Environmental Protection to Antarctic Treaty, on 4 October 1991. He highlighted the important

role of the CEP in supporting the Parties to continue to achieve their shared objective of comprehensively protecting the Antarctic environment, and thanked Members and Observers for their ongoing efforts in this regard.

- (5) The Chair summarised the work undertaken during the intersessional period, noting that all the actions arising from CEP XVIII with outcomes anticipated for CEP XIX had been addressed (IP 115).

## **Item 2: Adoption of the Agenda**

- (6) The Committee adopted the following agenda and confirmed the allocation of 38 Working Papers (WP), 51 Information Papers (IP), 4 Secretariat Papers (SP) and 4 Background Papers (BP) to the agenda items:
1. Opening of the Meeting
  2. Adoption of the Agenda
  3. Strategic Discussions on the Future Work of the CEP
  4. Operation of the CEP
  5. Cooperation with other Organisations
  6. Repair and Remediation of Environment Damage
  7. Climate Change Implications for the Environment
    - a. Strategic approach
    - b. Implementation and Review of the Climate Change Response Work Programme
  8. Environmental Impact Assessment (EIA)
    - a. Draft Comprehensive Environmental Evaluations
    - b. Other EIA Matters
  9. Area Protection and Management Plans
    - a. Management Plans
    - b. Historic Sites and Monuments
    - c. Site Guidelines
    - d. Marine Spatial Protection and Management
    - e. Other Annex V Matters
  10. Conservation of Antarctic Flora and Fauna
    - a. Quarantine and Non-native Species
    - b. Specially Protected Species

c. Other Annex II Matters

11. Environmental Monitoring and Reporting
12. Inspection Reports
13. General Matters
14. Election of Officers
15. Preparation for Next Meeting
16. Adoption of the Report
17. Closing of the Meeting

**Item 3: Strategic Discussions on the Future Work of the CEP**

- (7) Argentina introduced WP 46 rev. 1 *Report of the Intersessional Contact Group on the Development of a Publication on the Occasion of the 25<sup>th</sup> Anniversary of the Madrid Protocol*. The ICG was created at CEP XVIII and tasked with: 1) establishing a small Author Group to develop the writing process for the publication; 2) developing a neutral, brief, concise and web-based publication including visual and dynamic tools; 3) identifying the different means of outreach for the publication; and 4) submitting the draft publication to CEP XIX for consideration and approval. The ICG recommended that the Committee:
- consider the draft publication and generate a consultation mechanism between the Members, in order to complete its drafting in advance of the 25<sup>th</sup> anniversary of the signing of the Protocol;
  - analyse the different ways of dissemination that arose from Term of Reference 3;
  - suggest that the Members and related non-governmental organisations implement those forms of dissemination in which voluntary action was required;
  - approve those forms of dissemination in which the general agreement of the Members was required; and
  - start spreading the publication at the time of the anniversary of the signing of the Environment Protocol, on 4 October 2016.
- (8) Argentina warmly thanked the individuals involved in preparing the draft publication during the intersessional period, including: former CEP Chairs, Prof. Olav Orheim of Norway, Dr Tony Press of Australia, Dr Neil Gilbert of New Zealand and Dr Yves Frenot of France; current CEP Chair, Mr Ewan McIvor; as well as Mr Rodolfo Sánchez of Argentina.

- (9) The Committee thanked Argentina and participants in the ICG for the excellent draft publication, especially the work of the ICG convener, Ms Patricia Ortúzar, and the authors of the publication. Following the incorporation of minor amendments suggested during the meeting, the Committee endorsed the publication.
- (10) The Committee recognised the importance of communicating the values of the Antarctic Treaty and Environment Protocol to a general audience, and supported the options identified by the ICG for disseminating the publication. Some Members offered to contribute to the dissemination of the publication through, for example, the translation of the material into non-Treaty Party languages, and adapting the publication for particular audiences including children, those involved in Antarctic operations and scientists. The Committee thanked IAATO for its intention to incorporate the publication into its outreach activities. The Committee also supported the idea of holding an event to spread the publication on 4 October 2016.

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**CEP advice to the ATCM on a publication on the occasion of the 25<sup>th</sup> Anniversary of the Protocol on Environmental Protection to the Antarctic Treaty**

- (11) The Committee endorsed the publication on the occasion of the 25<sup>th</sup> Anniversary of the Protocol on Environmental Protection to the Antarctic Treaty and agreed to forward it to the ATCM for consideration.
- (12) The Committee recommended that the publication be launched on 4 October 2016, on the occasion of the actual anniversary of the signing of the Protocol, making use of the dissemination mechanisms identified during the ICG and any other mechanisms that emerge following the CEP discussions.

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***CEP Five-year Work Plan***

- (13) The Committee considered the Five-year Work Plan adopted at CEP XVIII (SP 2) and, in keeping with its agreement at CEP XV (2012), briefly considered the work plan at the end of each agenda item.
- (14) The Committee revised and updated its Five-year Work Plan (Appendix 1). The major changes included updates to reflect actions agreed during the Meeting, including actions arising from the Climate Change Response Work Programme (CCRWP) and the second joint workshop of the CEP and the Scientific Committee for the Conservation of Antarctic Marine Living Resources (SC-CAMLR).

- (15) To assist with updating the Five-year Work Plan at future meetings, the Committee encouraged Members to identify clear links between meeting papers and actions identified in the Plan and, where appropriate for proposals suggesting future work, to provide suitable text for inclusion in the Plan.

#### **Item 4: Operation of the CEP**

- (16) New Zealand introduced WP 10 *Antarctic Environments Portal*, jointly prepared with Australia, Japan, Norway, SCAR, Spain, and the United States. The paper recorded the benefits of the Portal and reviewed progress made since CEP XVIII, noting that the management of the Portal had been transferred to the University of Canterbury, Christchurch, New Zealand and that the Tinker Foundation had provided three years of external funding to support the Portal.
- (17) New Zealand noted that several new articles had been published on the Portal since CEP XVIII including on: the vulnerability of marine habitats to climate change (relevant to CEP Item 9d); the Ross Seal (relevant to CEP Item 10b); changes in penguin distribution over the Antarctic Peninsula and Scotia Arc (relevant to CEP Items 10c and 11) and prediction of Antarctic climate (relevant to CEP Item 7).
- (18) The Committee congratulated the proponents on progress made on the Environments Portal since CEP XVIII. It also thanked the Tinker Foundation and the University of Canterbury for their support.
- (19) The Committee thanked France for its generous support with the translation of Portal content, and also thanked other CEP Members for their participation in the Editorial Group.
- (20) The Committee reaffirmed the importance of the development of the Portal as a reliable information source that was apolitical and high quality, and of maximising, on a voluntary basis, the use of the information contained in the Antarctic Environments Portal to support the Committee's discussions.
- (21) New Zealand responded to questions raised on: how to avoid duplication of information; how the quality and neutrality of the information would be maintained; how the proponents would ensure appropriate geographical balance in the authorship of content in the Antarctic Environments Portal; what challenges were being faced by the Antarctic Environments Portal; and to what extent the Antarctic Environments Portal was being used already. New Zealand reiterated that the Portal was unique and fulfilled a need not

currently being met by other sources. It stressed that the Portal provided peer reviewed summaries of the current state of knowledge in the peer reviewed literature and that the published articles did not express opinions, nor make recommendations. New Zealand reported that the Portal was being used widely, with 5,000 visits in the last 12 months. It remarked that attempts to ensure wide geographical representation would be ongoing, but that the voluntary nature of the contributions made this a continuing challenge.

- (22) SCAR reminded the Committee that the quality of the articles published in the Portal was safeguarded through a rigorous editorial process involving a two-stage review by scientific experts as well as the Editorial Group.
- (23) The Committee agreed that it would be helpful to encourage broader participation by scientists in the Antarctic Environments Portal, including ensuring appropriate geographical balance in authorship. The Committee noted a number of existing and planned summaries were of relevance to matters under discussion by the Committee. Germany suggested that information summaries be prepared on the environmental impacts of unmanned aerial vehicles (UAVs) and underwater noise.
- (24) The Committee encouraged further consideration of options for the future management of the Antarctic Environments Portal, including considering whether the Antarctic Treaty Secretariat could host the Portal.
- (25) The Committee supported the recommendations in WP 10 and agreed to:
  - reaffirm the importance of the development of the Portal as a reliable information source that was apolitical and high quality;
  - maximise, on a voluntary basis, the use of the information contained in the Portal to support the Committee's discussions;
  - advise the Editorial Group on information summaries that it wished to see prepared for publication in the Portal (eg, through the Five-year Work Plan or CCRWP);
  - continue to encourage scientists to work with SCAR in the preparation of articles for publication in the Portal;
  - consider and make recommendations to the ATCM on options for the future management of the Portal in accordance with Resolution 3 (2015); and
  - give thought as to how to identify representatives to serve on the Editorial Group.



- (26) Australia introduced WP 17 *Report of the intersessional contact group established to review information exchange requirements*. The ICG was tasked to review the items of information currently required to be exchanged and to formulate recommendations on: whether there was continued value for Parties in exchanging information on these items; whether some of them needed to be modified, updated, differently described, made mandatory (where currently described as optional) or removed; the timing of information exchange for these items; how each item would best fit into the category of pre-season, annual and permanent information; and whether the information could be better exchanged through other mechanisms.
- (27) Australia recommended that the Committee: 1) consider the report of the ICG with reference to the exchange of information relating to environmental matters; 2) formulate advice to the ATCM on any recommended changes; 3) identify any further work arising from the report of the ICG; and 4) give consideration to how that work might be advanced.
- (28) The Committee thanked Australia for convening the ICG and welcomed the ICG report.
- (29) Members raised concerns regarding the complexity and level of detail of information exchanged, and noted the need for critical examination of how the information exchange was evolving. They noted that it could be relevant to get a better feel of how actively Members use the EIES tool as an information source, considering questions such as what information Members search for, who uses the information and whether the degree of detail required at present is necessary. In highlighting inconsistency within the current EIES, some Members also stressed the importance of establishing a common standard of information exchange for all Parties and relevant organisations.
- (30) The Committee considered the items of information relating to environmental matters, and concluded that:
- With regard to information exchange on 'Contingency plans for oil spills and other emergencies', the CEP agreed to recommend changes to: make clear that this requirement relates to environmental incidents; accommodate a description of the scope or coverage of the plan; ensure that provision of a link to a plan is optional; and to remove the item 'implementation report'. The CEP further noted that information can also be exchanged via an established COMNAP communication mechanism, for reporting on incidents and possible implementation of contingency plans (for National Antarctic Programme (NAP))

incidents), and that the option is available of case-by-case reporting to the CEP where a contingency plan has been invoked in responding to a non-NAP incident.

- With regard to information exchanged on Initial Environmental Evaluations (IEEs) and Comprehensive Environmental Evaluations (CEEs), the CEP agreed to recommend changes to include an additional optional item of information for indicating 'the period/length of the activity'; and to modify the timing for the provision of information on IEEs and CEEs to encourage provision 'as soon as domestic processes are concluded, while maintaining the existing deadline for Parties to submit the information'. The CEP further noted that in some cases an IEE for an activity is amended, updated or otherwise modified by the Competent Authority, and that the information exchange requirements currently do not include sharing of information about such updates.
- The CEP noted that the current information exchange requirements for 'flora and fauna: taking and harmful interference', while meeting the Protocol requirement, will continue to result in data that cannot readily be collated across species, location, and years, due to the domestic permit arrangements in place for some Parties that relate to single species across multiple locations and *vice versa*.
- With regard to information exchange requirements for waste management plans, the CEP noted that further discussion of what information would be useful to the CEP, and what details might therefore be required, would best occur in the context of any future CEP consideration of waste management issues.
- With regard to information exchange on 'Waste disposal and waste management – inventory of past activities', the CEP noted that further discussion of this requirement would best occur in the context of any future CEP discussion of inventory of past activities.
- With regard to information exchange on 'Area protection and management – Visits to Specially Protected Areas (permit information)', the CEP noted that the ICG had considered the possibility of including copies of ASPA post-visit reports in the information exchange requirements, but that ASPA post-visit reports, required under management plans, will not always be in an official Treaty language. The CEP noted that further discussion of this issue in the CEP may be warranted, and encouraged interested Members to consider this issue and bring forward proposals as appropriate.

- With regard to the item 'change or damage to an ASPA, ASMA or HSM', the CEP noted that the option exists for a Party to provide information on an as-needed basis, on any reports of change or damage to an ASMA or ASPA.

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**CEP advice to the ATCM on the exchange of information on environmental matters**

- (31) The CEP recommended changes to the items of information exchange on contingency plans for oil spills and other emergencies as follows:
- modifying the description of the item to add underlined text as follows: 'oil spills and other environmental emergencies';
  - adding an optional item to describe 'scope/coverage of the plan (eg, ship oil spill, station oil spill, station chemical incident, etc.)', in case this is not indicated in the title;
  - retaining the item 'link', but making it 'optional'; and
  - removing the item 'implementation report'.
- (32) The CEP recommended changes to the items of information exchange on IEEs and CEEs as follows:
- the inclusion of an additional optional item of information, for indicating 'the period/length of the activity'; and
  - modifying the timing for information on IEEs and CEEs to encourage provision 'as soon as domestic processes are concluded, while maintaining the existing deadline for Parties to submit the information'.

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**Item 5: Cooperation with other Organisations**

- (33) The SC-CAMLR Observer presented *IP 6 Report by the SC-CAMLR Observer to the nineteenth meeting of the Committee for Environmental Protection*, which focused on the five issues of mutual interest to the CEP and SC-CAMLR as identified in 2009 at the first joint workshop: a) Climate change and the Antarctic marine environment; b) Biodiversity and non-native species in the Antarctic marine environment; c) Antarctic species requiring special protection; d) Spatial marine management and protected areas; e) Ecosystem and environmental monitoring. It noted that due to ongoing changes in the environment related to climate and changes in the Antarctic food web, a range of precautionary measures might be needed to ensure that Article II of the CAMLR Convention was met. In particular SC-CAMLR agreed that attention was needed in

building long time-series and designing scientific studies that could predict or uncover changes in ecosystem function at an early stage, and that management approaches that worked in a changing climate should be adopted. SC-CAMLR considered a range of issues relating to biodiversity within spatial marine management and protected areas and noted that the CEP remained the lead-body on issues of non-native species. SC-CAMLR recognised that the current set of CCAMLR Ecosystem Monitoring Program (CEMP) parameters were providing indices of predator responses at different time and space scales and that this would benefit further development of feedback management approaches for the krill fishery. It awarded funds from the CEMP Special Fund Management Group towards a range of research initiatives related to feedback management. The full report on the 34<sup>th</sup> SC-CAMLR meeting was available at <https://www.ccamlr.org/en/sc-camlr-xxxiv>.

- (34) COMNAP introduced IP 10 *Annual Report for 2015/16 of the Council of Managers of National Antarctic Programs (COMNAP)* and emphasised the items of particular relevance for CEP discussions. Firstly, the Infrastructure Catalogue project was a tool that would support greater collaboration in the Antarctic and thereby support reducing environmental impact from Antarctic science activities. This catalogue would be available by the end of 2016 on the COMNAP website. Secondly, COMNAP's work on Antarctic UAS use, as reported in COMNAP's WP 14, was an evolving project that would be revised to reflect published information on wildlife response to UAS use in the Antarctic as that information became available.
- (35) SCAR presented IP 20 *The Scientific Committee on Antarctic Research (SCAR) Annual Report 2015/16* and referred to BP 2 which highlights some recent scientific publications by the SCAR research community since the last ATCM, that could be of interest for the delegates. SCAR highlighted several examples of its activities including participation in the Antarctic Roadmap Challenges project in 2015. This initiative, led by COMNAP, represented the second step of the first SCAR Antarctic and Southern Ocean Science Horizon Scan. Both initiatives are the topic of the SCAR Science Lecture at this year's ATCM (BP 3 rev. 1). Other activities include the participation, by SCAR, in a meeting of global biodiversity and Antarctic experts entitled 'Antarctica and the Strategic Plan for Biodiversity 2011-2020: The Monaco Assessment' (IP 38). Through wide consultation, including with COMNAP, SCAR also developed the SCAR Code of Conduct for Activity in Terrestrial Geothermal Areas in Antarctica, which is presented to the CEP for consideration (WP 23). SCAR also highlighted its participation in the 2015 UNFCCC COP21 in Paris, and the awarding of four fellowships,

including the new Prince Albert II of Monaco Biodiversity Fellowship and one SCAR/COMNAP fellowship. SCAR also awarded two Visiting Professorships, and again facilitated the 2015 Tinker-Muse prize which was awarded to Dr Valerie Masson-Delmotte. SCAR prepared an update of the Antarctic Climate Change and the Environment Report (IP 35) and provided a progress report regarding geoconservation (IP 31) in advance of a full report on this issue to the CEP in 2018.

- (36) SCAR indicated that the 34<sup>th</sup> SCAR Delegates Meeting and the Open Science Conference would be held in Kuala Lumpur, Malaysia in August 2016. At that meeting, SCAR's synthesis of the scientific understanding of Southern Ocean acidification would be released. In addition, at this conference SCAR would be hosting a 'Wikibomb' as a way of increasing the visibility of female Antarctic researchers and helping to encourage girls around the world to pursue science careers. SCAR also reported on: the successful XII International Symposium on Antarctic Earth Sciences (ISAES) held in Goa, India in 2015; its plans for the XII SCAR Biology Symposium to be held in Belgium in July 2017; and the POLAR2018 Conference to be held in Davos, Switzerland jointly with the International Arctic Science Committee. SCAR also noted that Dr Jenny Baeseman had been appointed as the new SCAR Executive Director.
- (37) The Committee thanked SCAR for facilitating its work through providing high quality advice and welcomed the opportunity to comment on SCAR's new strategic plan.
- (38) Malaysia informed the Committee that the process of organising the XXXIV SCAR meeting and Open Science Conference was advancing and asked Members to encourage their scientific communities to participate.
- (39) WMO presented IP 15 *The Year of Polar Prediction*. The Year of Polar Prediction (2017-2019) would aim to enable a significant improvement in environmental prediction capabilities for the polar regions and beyond, by coordinating a period of intensive observing, modelling, prediction, verification, user-engagement and education activities. It would also aim to address the lagging environmental forecasting capabilities at the poles, focusing on hourly-to-seasonal (Polar Prediction Project) and on seasonal-to-centennial (Polar Climate Predictability Initiative) time scales. The WMO also referred the Committee to the website for the Year of Polar Prediction: [www.polarprediction.net](http://www.polarprediction.net).
- (40) Supporting this WMO initiative, IAATO remarked that it would be useful to their members in implementing the IMO Polar Code. Furthermore, IAATO and France remarked that the work done during the Year of Polar Prediction

would also be useful in operational planning for difficult sea ice conditions. The Committee warmly supported the WMO initiative, noting the Year of Polar Prediction would contribute to improving the understanding of the environmental implications of climate change in the Antarctic Treaty area.

- (41) WMO presented IP 34 *The Antarctic Observing Network (AntON) to facilitate weather and climate information*, prepared jointly with SCAR. Noting that Antarctica was data sparse, WMO reflected on the importance of maximising the use of all of the meteorological and other data collected for weather, climate and other research and operational activities. Both the WMO and SCAR aimed to maximise the dissemination and use of such data through the Antarctic Observing Network (AntON), which collected metadata from participating manned and automatic weather stations currently in operation in Antarctica and the sub-Antarctic islands. In addition to keeping a list of the operational meteorological sites in Antarctica, WMO and SCAR, through the British Antarctic Survey, also monitored meteorological reports from ships operating in Antarctic waters. WMO also asked aircraft operators in Antarctica to provide meteorological observations for use in weather forecasting.
- (42) The Committee thanked the WMO and SCAR and expressed its support for the Antarctic Observing Network. Noting that meteorological observations from ships and aircraft contribute to the initiative, IAATO noted that it would continue to encourage its members to participate in the Antarctic Observing Network. The United Kingdom indicated that the British Antarctic Survey would continue its involvement in the Antarctic Observing Network.

***Joint CEP/SC-CAMLR Workshop (Punta Arenas, Chile, 19-20 May 2016)***

- (43) The United Kingdom and the United States introduced WP 53 *Report of the Joint CEP/SC-CAMLR Workshop on Climate Change and Monitoring, Punta Arenas, Chile, 19-20 May 2016*, prepared jointly by the co-convenors, and referred to IP 77 *Introduction from Co-Convenors of the Joint CEP/SC-CAMLR Workshop (Punta Arenas, Chile, 19-20 May 2016)*. The general scope of the workshop was to identify the effects of climate change that were considered most likely to impact the conservation of the Antarctic, and to identify existing and potential sources of research and monitoring data relevant to the CEP and SC-CAMLR, given that these were two of the five areas of common interest identified by the first joint CEP/SC-CAMLR workshop held in 2009.
- (44) The Committee thanked the workshop co-convenors, Dr Susie Grant (United Kingdom) and Dr Polly Penhale (United States) for their work

to lead the planning of the workshop, for chairing the workshop, and for quickly preparing the workshop report for consideration during CEP XIX. The Committee also expressed its gratitude to the government of Chile for hosting the workshop in Punta Arenas.

- (45) The Committee agreed that the joint workshop had been valuable in further enhancing the cooperation and information sharing between the two committees on climate change, environmental monitoring, and other matters of mutual interest.
- (46) Japan expressed concern about the relationship between the outcomes of the workshop and its terms of reference.
- (47) Belgium and SCAR reminded the Committee of the SCAR Standing Committee on Antarctic Data Management, which is tasked with coordinating the management of data and information on behalf of the SCAR community. Belgium and SCAR also reminded the Committee of the capability of the *www.biodiversity.aq* portal and the Antarctic Master Directory to support the data sharing and exchange suggested in the report.
- (48) China drew the attention of CEP Members to the importance of transparency in the collection, process and use of data and information. In relation to Recommendations 14 and 15, China also pointed out that the work of CEP and SC-CAMLR in response to climate change should focus on the whole Treaty/Convention area or even broader, rather than on protected areas only.
- (49) The Committee endorsed the 16 recommendations arising from the Joint CEP/SC-CAMLR workshop, as outlined in WP 53, and noted that the recommendations would also be considered by SC-CAMLR at its meeting later in the year. The Committee recognised the importance of monitoring progress on implementation of these recommendations.
- (50) The Committee noted that Recommendations 1 to 4 are closely aligned with actions prioritised in the existing Climate Change Response Work Programme (CCRWP), and encouraged further incorporation of these recommendations into CCRWP updates and the CEP Five-year Work Plan. In relation to these recommendations, SCAR noted that work was already underway or planned in the near future, consistent with the priorities in the CCRWP.
  - **Recommendation 1:** Encourage SC-CAMLR and CEP to recognise, encourage and support wherever possible the contribution that SCAR and programmes such as ICED and SOOS, as well as national programmes, can make to their work on climate change and related monitoring.

- **Recommendation 2:** Encourage the articulation of clear questions to be addressed to scientific programmes in order to obtain the best scientific advice relevant to the goals of the CEP and SC-CAMLR.
  - **Recommendation 3:** Identify and convey shared climate change research and monitoring needs to SCAR, and to ICED and SOOS and other similar programmes, using the process outlined in Table 2 of WP 53.
  - **Recommendation 4:** Encourage the periodic production of high level summaries of outcomes and progress made in programmes and reports such as SCAR-ACCE, ICED, SOOS, etc. in order to aid the CEP and SC-CAMLR in the understanding of the current state of knowledge and in the formation of questions to help progress work on climate change.
- (51) The Committee noted that Recommendations 5 to 10 refer to actions that will facilitate the work of both the CEP and SC-CAMLR on climate change, noting that those relating specifically to SC-CAMLR will be considered during its discussions later in the year.
- **Recommendation 5:** Encourage flexibility in the composition of national delegations according to relevant agenda items, to allow SC-CAMLR, CEP and SCAR to engage in discussions on specific topics.
  - **Recommendation 6:** Consider invitation of experts to CCAMLR Working Groups (particularly WG-EMM for discussions relating to climate change), including appropriate input from SCAR and programmes such as ICED and SOOS.
  - **Recommendation 7:** Promote the development of young scientists by encouraging participation in the CCAMLR Scholarship and SCAR Fellowship programmes, with the specific aim of contributing research relevant to climate change.
  - **Recommendation 8:** Encourage improved visibility of CCAMLR metadata to facilitate discoverability and exploration of data relevant to matters of mutual interest, particularly including CEMP data.
  - **Recommendation 9:** Recognise that data sharing is not just sharing the products of research already collected, but information is also needed on future plans to collect additional data, to facilitate combined efforts and avoid duplication of effort.
  - **Recommendation 10:** Encourage use of the Antarctic Environments Portal in providing policy-ready summaries on issues of mutual interest to members of both Committees. SC-CAMLR could be encouraged to request topics for inclusion, or to author summaries in due course.



- (52) The Committee noted that Recommendations 11 and 12 require the development of further scientific input, and encouraged the involvement of SCAR and its associated programmes and other relevant organisations and programmes as appropriate.
- **Recommendation 11:** Recognise the importance of using common baseline information, and recommend that summary information such as SCAR Antarctic Climate Change and the Environment (ACCE) updates are submitted under climate change agenda item in both Committees.
  - **Recommendation 12:** Consider further appropriate development of scientific reference areas with the objective of understanding impacts of climate change, using existing tools available to the CEP and SC-CAMLR.
- (53) The Committee noted that Recommendations 13 to 15 relate to ongoing work by SC-CAMLR, and welcomed further updates on this work as it develops.
- **Recommendation 13:** Promote ongoing work led by Argentina, Chile, and including other Members, on the development of MPAs in planning Domain 1 (Antarctic Peninsula), acknowledging particular relevance to climate change research and the establishment of reference areas in this region of rapid change.
  - **Recommendation 14:** Acknowledge that data from MPA planning processes will integrate and make available a significant amount of information that will improve decision-making and be relevant to the work of the CEP and SC-CAMLR on a range of other topics.
  - **Recommendation 15:** Recognise that research and monitoring within CCAMLR and ATCM protected area systems will benefit from coordinated and integrated programmes within the respective regions, including the wider community of interested scientists (SCAR, ICED, SOOS, and/or national programmes).
- (54) Finally, the Committee agreed on the importance of future joint meetings and intersessional communication between the CEP and SC-CAMLR.
- **Recommendation 16:** Encourage further and regular meetings between SC-CAMLR and the CEP, at least once every five years. Also encourage more frequent communication on topics of mutual interest in the intervening period before the next joint meeting, including via online forums and using remote access as appropriate.
- (55) The Committee also endorsed the recommendation of the paper that further workshops should be held, at least once every five years, and encouraged

Members to engage in more frequent communication on topics of mutual interest in the period before the next joint meeting.

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**CEP advice to the ATCM on outcomes from the Joint CEP/SC-CAMLR Workshop on Climate Change and Monitoring**

- (56) The Committee agreed to advise the ATCM that it had welcomed the report of the Joint CEP/SC-CAMLR Workshop on Climate Change and Monitoring and had endorsed the recommendations arising.
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***Nomination of CEP Representatives to other organisations***

- (57) The Committee nominated:
- Dr Kevin Hughes (United Kingdom) to represent the CEP at the 34<sup>th</sup> SCAR Delegates Meeting to be held in Kuala Lumpur, Malaysia from 29-30 August 2016;
  - Dr Yves Frenot (France) to represent the CEP at the 28<sup>th</sup> COMNAP Annual General Meeting to be held in Goa, India from 16-18 August 2016; and
  - Dr Polly Penhale (United States) to represent the CEP at the 35<sup>th</sup> SC-CAMLR meeting to be held in Hobart, Australia, from 17-21 October 2016.
- (58) The following papers were also submitted under this agenda item:
- BP 2 *The Scientific Committee on Antarctic Research Selected Science Highlights for 2015/16* (SCAR).
  - BP 3 rev. 1 *Abstract of the SCAR Lecture: Exploring the future of scientific research in Antarctica* (SCAR).

**Item 6: Repair and Remediation of Environment Damage**

- (59) The following paper was submitted under this agenda item:
- IP 76 *Environmental Remediation in Antarctica* (Brazil).

**Item 7: Climate Change Implications for the Environment**

***7a) Strategic Approach***

- (60) SCAR presented IP 35 *Antarctic Climate Change and the Environment – 2016 Update*, which provided an update on recent significant advances in the

understanding of climate change in the Antarctic Continent and the Southern Ocean. In addition to reporting on the physical effects of climate change on the environment, the update also detailed research on the biological and ecological impacts of these changes. The document built on the material in the Antarctic Climate Change and the Environment (ACCE) report, which was published by SCAR in 2009, with an update of the key points appearing in 2013.

- (61) The Committee thanked SCAR for continuing to provide updates to the ACCE report, and reiterated the importance of SCAR's research activities for efforts to understand and address the environmental implications of climate change for the protection and management of the Antarctic Treaty area. The Committee also considered that the research findings presented in IP 35 reinforced the importance of the CEP's work to implement the CCRWP.
- (62) WMO referred to the most recent report of the IPCC, and noted the importance of taking into account both natural and human-induced changes in order to correctly model both past and future climate. WMO stated that the increasing extent of sea ice in the Antarctic area did not contradict an overall global warming trend and is well documented in the published literature as well as the SCAR ACCE report and associated updates. Acknowledging that increasing sea ice in the Antarctic area had significant implications on science support, COMNAP referred the Committee to the report of COMNAP's Sea Ice Challenges Workshop.
- (63) WMO presented IP 12 *WMO Climate-related Activities in the Antarctic Region*, an update on relevant Antarctic climate-related activities undertaken by WMO World Climate Research Programme. Noting the relevance of its work to that of the CEP, WMO highlighted its efforts to improve awareness of the general state of the Cryosphere through the Global Cryosphere Watch, improve the understanding of the predictability of polar climate, and use space agencies to observe the data-sparse polar regions.
- (64) ASOC presented IP 78 *Antarctic Climate Change, Ice Sheets Dynamics and Irreversible Thresholds: ATCM contributions to the IPCC and Policy Understanding. Highlighting the significant challenge of communicating the threat of irreversible, long-term changes to the global climate system*. ASOC urged the Antarctic scientific community to contribute to the IPCC Special Report on the Implications of Global Warming of 1.5°C, and the Special Report on the Oceans and Cryosphere. ASOC recommended that Members, together with SCAR and other scientific organisations, respond in a timely fashion through a rapid assessment report.

- (65) SCAR remarked that the summary of research requested by ASOC was consistent with its existing and planned research activities. SCAR further noted that it would consider how best to contribute to the IPCC Special Reports.
- (66) The Committee thanked ASOC for its paper and welcomed SCAR's intention to contribute to the Special Report. It also encouraged Members to consider contributing through their own national processes.
- (67) ASOC presented IP 81 *Antarctic Climate Change Report Card*, a summary of notable scientific breakthroughs and climate events related to anthropogenic climate change in the Antarctic. ASOC noted that the findings on climate change and ocean acidification were conclusive, and that climate change impacts were real and potentially significant for the Antarctic and the rest of the world. Recognising that Antarctic climate change science had been critical to understanding the impacts of global climate change, ASOC urged Members to continue to fund climate change science. Identifying the range of implications of climate change on environmental protection and management in Antarctica, including the need to establish protected areas, ASOC welcomed the work of the CCRWP.
- (68) The United Kingdom presented IP 64 *Report on the activities of the Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) Programme*, which reported on the international multidisciplinary programme established in 2008 to improve understanding of change in the Southern Ocean and the implications for ecosystems and management.
- (69) The Committee welcomed the paper and considered that the activities of the ICED programme were relevant to its work on climate change, as identified in the Climate Change Response Work Programme and as highlighted during the joint CEP/SC-CAMLR workshop.
- (70) It was noted that all the useful and substantial information provided in the suite of papers on climate related issues shows the importance of continued focus on climate change as an important contributor to overall change in Antarctica, and its relevance in the context of governance and management of the continent (eg, through EIA processes, considering climate change risk when planning and conducting activities in Antarctic, disseminating information about Antarctic climate change to the global environmental forums, and encouraging coordination and accessibility of all climate relevant research data from Antarctica).
- (71) The Committee referred to SP 7 *Actions taken by the CEP and the ATCM on the ATME recommendations on Climate Change*, and noted that many of the

ATME on Climate Change (2010) recommendations had been incorporated into the CCRWP.

**7b) Implementation and Review of the Climate Change Response Work Programme**

- (72) The Committee reviewed the Climate Change Response Work Programme (CCRWP) agreed to by CEP XVIII and adopted as Resolution 4 (2015) (SP 2). It considered the actions identified for CEP XIX and noted that steps were already being taken to address most of these, including through the SGMP's ongoing work to develop ASMA guidance (WP 31), the intersessional work on reviewing the manual on Non-native Species (WP 13), the review of the Environmental Impact Assessment Guidelines (WP 15) and information summaries currently available and planned for the Antarctic Environments Portal. The Committee also noted that SC-CAMLR, SCAR and programmes such as the Southern Ocean Observing System (SOOS) and Integrating Climate and Ecosystem Dynamics in the Antarctic (ICED) were already undertaking activities of relevance to the CCRWP.
- (73) In addition, the Committee noted that the CCRWP included several requirements for new and ongoing research and monitoring. The Committee encouraged National Antarctic Programmes, SCAR, WMO, and relevant external expert programmes to support and facilitate these research and monitoring activities.
- (74) The Committee updated the CCRWP (Appendix 2), and welcomed the offers by SCAR and WMO to provide reports to CEP XX on their research and monitoring activities relevant to the CCRWP. The Committee also agreed that it should request relevant external programmes including SOOS and ICED to provide similar information about how their activities could contribute to matters identified in the CCRWP.
- (75) The Committee noted that managing the CCRWP during the annual CEP meeting would likely be insufficient for achieving the necessary communication with observer and expert bodies, and agreed that a dedicated group, either in the form of regularly held ICGs, or a subsidiary body (with a convener and dedicated participants, in accordance with Rule 10 of the CEP Rules of Procedure) would be the most effective way to involve such stakeholders in the work, as well as having a range of expertise available to follow up on the communication of the CCRWP.
- (76) The Committee noted that further discussion was required on how such a dedicated group would operate, including how to work in the four Treaty

languages to ensure wide engagement of Members, noting at the same time that there is precedent for the effective operation of a subsidiary body.

- (77) The Committee considered how to review and manage the CCRWP on an ongoing basis, and identified the following likely terms of reference for any mechanism established to review, update and maintain the CCRWP:
- overseeing and coordinating the communication between Members, SCAR and other stakeholders on identified actions in the CCRWP to facilitate its implementation;
  - providing reports on the implementation of CCRWP to each CEP meeting;
  - revising the CCRWP for the consideration of the CEP on an annual basis.
- (78) The Committee noted the desirability and importance of clear and effective communication with Observer and expert organisations regarding tasks and information requests referred to them.
- (79) The Committee welcomed New Zealand's offer to lead informal intersessional discussions on initiating the coordination of the CCRWP, including its communication and preparing suggested updates of the CCRWP, as well as options for establishing a subsidiary group to review and manage the CCRWP for CEP XX.

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**CEP advice to the ATCM on implementation of the Climate Change Response Work Programme (CCRWP)**

- (80) Noting the ATCM's request in Resolution 4 (2015) to receive annual updates on implementation of the Climate Change Response Work Programme, the Committee agreed to advise the ATCM that:
- steps were already being taken to address several tasks/actions identified in the CCRWP for 2016;
  - it had agreed to encourage National Antarctic Programmes, SCAR, WMO, and relevant external expert organisations to support and facilitate the research and monitoring activities identified in the CCRWP;
  - it had updated the CCRWP to reflect actions undertaken and to incorporate other minor modifications; and
  - it had agreed to convene informal intersessional discussions to support further consideration at CEP XX of the best means for managing and supporting implementation of the CCRWP.

- (81) Reflecting on the importance of incorporating high quality and up-to-date scientific advice into its deliberations on the environmental implications of climate change in the Antarctic Treaty area, including implementation of the CCRWP, the Committee agreed that it would be valuable to have a direct means of drawing on the expertise of the IPCC.

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**CEP advice to the ATCM on approving the IPCC as Observer to the CEP**

- (82) With reference to Rule 4c of the CEP Rules of Procedure adopted under Decision 4 (2011), the Committee agreed to propose that the ATCM approve the IPCC as an Observer to the CEP.

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**Item 8: Environmental Impact Assessment (EIA)**

***8a) Draft Comprehensive Environmental Evaluations***

- (83) Italy introduced WP 43 *Draft Comprehensive Environmental Evaluation for the construction and operation of a gravel runway in the area of Mario Zucchelli Station, Terra Nova Bay, Victoria Land, Antarctica*. This paper followed reports on Italy's plans to build a gravel runway as presented at previous CEP meetings (CEP XVIII - WP 30, CEP XVII - IP 57, CEP XVI - IP 80 and CEP XV - IP 41). It noted that the benefits obtained from the construction of the runway, including the more reliable and cost effective management of Italian scientific and logistic operations and increased safety and cooperation with neighbouring Antarctic Programmes, would outweigh its environmental impacts. Italy also provided a detailed explanation of some of the engineering aspects of the site research, including an aeronautical evaluation, a geophysical characterisation and a study of the morphology of the terrain including glacier movement.
- (84) France introduced WP 21 *Report of the intersessional open-ended contact group established to consider the draft CEE for the "Proposed construction and operation of a gravel runway in the area of Mario Zucchelli Station, Terra Nova Bay, Victoria Land, Antarctica"*. France noted that ICG participants had commented favourably on several aspects of the proposed activity. The ICG advised the Committee that the draft CEE was generally clear, well structured and well presented, and generally conformed to the requirements of Article 3 of Annex I to the Protocol. It further advised the Committee that the draft CEE's conclusion, that the impacts of the proposed activity were likely to be more than minor or transitory, had been adequately supported by the information it contained. The ICG also suggested that, if

Italy decided to proceed with the proposed activity, there were a number of aspects for which additional information should be provided in the required final CEE.

- (85) Italy presented IP 58 *The Initial Responses to the Comments on the Draft Comprehensive Environmental Evaluation for the construction and operation of a gravel runway in the area of Mario Zucchelli Station, Terra Nova Bay, Antarctica*, as well as IP 61 *Initial Environmental Evaluation for the extension to the Boulder Clay site of the access road to Enigma Lake, Mario Zucchelli Station, Terra Nova Bay, Victoria Land, Antarctica*. IP 58 provided initial responses to comments made by participants in the ICG referenced in WP 21. It included a construction schedule and details regarding the staff needed as well as some information on birds and invertebrates in the area, and indicated some potential direct impacts to flora and fauna, and the non-native species risks. Italy also presented findings on the cumulative and indirect impact of the activities and provided details of mitigation measures.
- (86) The Committee thanked Italy for the draft CEE and France for convening the ICG, and expressed support for the ICG's conclusions and recommendations. Noting the importance of the EIA processes as a significant component of environmental protection under the Environment Protocol, the Committee encouraged broad participation in future ICGs established to review draft CEEs.
- (87) Several Members with activities and facilities in Terra Nova Bay and the wider region expressed their commitment to work in collaboration with Italy to maximise international cooperation and the scientific benefits of the proposed facility.
- (88) Several Members reiterated that aspects of the draft CEE merited improvement or further attention, and questioned why the impacts of the construction of the access road to the proposed runway had been assessed by means of a separate IEE (submitted to CEP XIX under IP 61), rather than within the scope of the CEE assessment process.
- (89) ASOC noted that, by increasing routes into the area, the proposed runway would create broader environmental impacts in the region. ASOC expressed its reservations about the proposal and recommended that, if the runway were built, Italy should consider protecting other areas in the region whose values were comparable to the area associated with the airstrip.
- (90) The Committee welcomed Italy's commitment to respond to the issues raised by the ICG and by CEP Members and, should it decide to proceed with the



proposed activity, encouraged Italy to take into account the CEP's advice when preparing the required final CEE.

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**CEP advice to the ATCM on the draft CEE prepared by Italy for 'Proposed construction and operation of a gravel runway in the area of Mario Zucchelli Station, Terra Nova Bay, Victoria Land'**

(91) Having reviewed the draft CEE prepared by Italy for the 'Proposed construction and operation of a gravel runway in the area of Mario Zucchelli Station, Terra Nova Bay, Victoria Land, Antarctica', in accordance with the Procedures for intersessional CEP consideration of draft CEEs, the CEP advised the ATCM that:

- 1) The draft CEE generally conformed to the requirements of Article 3 of Annex I to the Protocol on Environmental Protection to the Antarctic Treaty.
- 2) If Italy decided to proceed with the proposed activity, there were a number of aspects for which additional information or clarification should be provided in the required final CEE, as set out in WP 21 to this meeting, in order to facilitate a comprehensive assessment of the proposed activity. In particular, the ATCM's attention was drawn to the suggestions that further details should be provided regarding:
  - a. the staff needed for the construction phase (number, accommodation etc.), as well as a clear schedule of work planned during the four years of construction;
  - b. some aspects of initial environmental reference state, particularly invertebrates and all bird species (not only Adélie penguins and skuas), eg, through comprehensive bird mapping prior to commencement of construction;
  - c. potential direct impacts to flora and fauna, the landscape and lake environments, and non-native species risks; the impacts related to the road, the quarries, dust and noise produced by construction work should be especially detailed;
  - d. the inclusion of all parts of the activity in the scope of the CEE, including the construction and operation of the road to the runway site;
  - e. cumulative and indirect impacts that might arise in light of existing activities and other known planned activities in the area, including logistical cooperation; and

- f. mitigation measures related to fuel management, non-native species, wildlife disturbance, training of the construction crew.
- 3) The information provided in the draft CEE supported the conclusion that the impacts of constructing and operating the proposed gravel runway were likely to be more than minor or transitory.
  - 4) The draft CEE was generally clear, well structured, and well presented, although improvements to some of the maps and figures were recommended.
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## **8b) Other EIA Matters**

### ***Unmanned Aerial Vehicles (UAV)***

- (92) The Committee recalled that, following initial discussions at CEP XVII (2014) and in-depth discussions at CEP XVIII (2015), the Committee had agreed to consider initiating work to develop guidance on the environmental aspects of UAV use in Antarctica.
- (93) COMNAP reminded the meeting of its ATCM XXXVIII – WP 22 which explored the risks and benefits of UAS use in the Antarctic, and then introduced WP 14 *The COMNAP Unmanned Aerial Systems-Working Group (UAS-WG)* which reported on the activities of the COMNAP UAS-Working Group and included an initial version of the Antarctic UAS Operator’s Handbook. COMNAP noted that the Handbook was a result of discussions from experts from 11 National Antarctic Programmes who participated in the UAS-WG, and thanked all those that had participated. It was noted that this Handbook is a living document that will be revised particularly in light of SCAR’s forthcoming information on wildlife disturbance. The Handbook includes 12 recommendations to National Antarctic Programmes in their development of their own UAS operations guidelines and includes forms that might be useful for information exchange and advanced notification of UAS activities.
- (94) Germany introduced WP 1 *UAV and wildlife minimum distances*, which summarised the results of recent research into the potential impacts of a micro-UAV on a small Adélie penguin colony on Ardley Island, and provided proposals for possible minimum distances for UAV use in Antarctica based on concrete disturbance experiments and in consideration of the precautionary approach recommended by the Committee when operating near wildlife. It recommended that the Committee consider the results and

recommendations of its paper in future discussions of guidelines for UAV use near wildlife concentrations.

- (95) Poland presented IP 59 *UAV remote sensing of environmental changes on King George Island (South Shetland Islands): update on the results of the second field season 2015/2016*. The paper presented preliminary information on the second season of the joint Polish and Norwegian monitoring programme using fixed-wing UAVs to collect geospatial environmental data. It reported on observations regarding UAV impacts on breeding penguins and southern giant petrels, observations on penguin and pinniped population size and distribution, as well as the mapping of vegetation communities.
- (96) IAATO presented IP 120 *IAATO Policies on the Use of Unmanned Aerial Vehicles (UAVs) in Antarctica: Update for the 2016/17 Season*, which reported that IAATO members had agreed to maintain the ban on recreational use of UAVs in coastal areas for the 2016/17 season. IAATO noted that, during the 2015/16 season, its operators had recorded 96 UAV flights, all of which had been approved by Competent Authorities and were for non-recreational use.
- (97) The Committee thanked all Members and Observers that submitted papers to inform the CEP's discussion on environmental impacts of UAV use in Antarctica. Some Members also recalled that papers submitted to CEP XVIII on this topic continued to be relevant to this discussion.
- (98) Acknowledging the scientific benefits of the use of UAVs to support research and monitoring, the Committee noted the continuing need for scientific understanding of the environmental impacts of UAV use, particularly on wildlife. The Committee recalled SCAR's generous offer to prepare a summary of the current state of knowledge regarding the impacts of UAVs on wildlife for the next meeting of the Committee, and appreciated SCAR's advice that this work was underway and progressing well.
- (99) The Committee thanked COMNAP for its paper on the development of a handbook on Guidelines for Certification and Operation of Unmanned Aerial Systems in Antarctica and, noting that WP 14 would be considered further by the ATCM, expressed support for COMNAP's recommendation to encourage Parties to give consideration to the guidance in the Handbook if or when their National Antarctic Programme is planning to use UAV technologies in the Antarctic Treaty area. The Committee noted that the handbook highlighted the importance of considering the environmental impacts of UAVs through the EIA process, and agreed that it would be beneficial for the handbook to

be further developed as research and understanding of the environmental impacts of UAV became available.

- (100) The Committee expressed its gratitude to Germany and Poland for providing updates on recent research of the potential impacts of UAVs, and urged Members to continue to provide updates on any research undertaken on the use and environmental impacts of UAVs. The Committee recognised the results presented in Germany's paper as a useful reference for its further discussions on developing environmental guidance for UAV use in Antarctica, while noting that additional research would be useful before establishing minimum approach distances.
- (101) The Committee also thanked IAATO for its advice that IAATO members had agreed to continue their ban on the recreational use of UAVs in coastal areas.
- (102) The Committee supported the establishment of an ICG to develop further guidance for managing the environmental aspects of UAV use, commencing at CEP XX, at which time SCAR's report on the impacts of UAVs on wildlife would be available.
- (103) The Committee acknowledged the benefit of continued consideration of these matters, and of the guidance and research being produced to support further discussion at CEP XX. Noting that some Members had shared their experience of implementing national or Antarctic guidance for UAV use, the Committee considered this information would also be relevant to those discussions.
- (104) While some Members expressed support for a suggestion raised during the meeting to ban the recreational use of UAVs in Antarctica, the Committee agreed that this matter could be given further consideration during the planned ICG. On this subject, the Committee noted that COMNAP's experience regarding the utility of carefully managed recreational use of UAVs to station staff, particularly those remaining in Antarctica over winter, would usefully inform future discussions.

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**CEP advice to the ATCM on unmanned aerial vehicles (UAVs)**

- (105) The Committee agreed to advise the ATCM that it recognised the usefulness of the COMNAP Guidelines for Certification and Operation of Unmanned Aerial Systems in Antarctica (WP 14). The Committee also recognised the need to develop guidance on the environmental aspects of UAVs, and would initiate at CEP XX work to develop such guidance.

- (106) Australia introduced WP 15 *Report of the intersessional contact group established to review the Guidelines for Environmental Impact Assessment in Antarctica*, jointly prepared with the United Kingdom. The ICG had been tasked to: continue revising the Guidelines for Environmental Impact Assessment in Antarctica appended to Resolution 1 (2005) to address issues including those identified in ATCM XXXVII - WP 29 and, as appropriate, suggest modifications to the Guidelines; and record issues raised during discussions under ToR 1, which relate to broader policy or other issues for the development and handling of EIAs, and which may warrant further discussion by the CEP with a view to strengthening the implementation of Annex I to the Protocol. The ICG reached general agreement on a suggested revision of the EIA Guidelines. The ICG also identified broader policy or other EIA issues that might warrant further discussion by the CEP. The ICG recommended that the Committee consider the revised EIA Guidelines and, should agreement be reached on a final version, that the Committee convey the revised guidelines to the ATCM for adoption. The ICG also recommended that the Committee discuss how best to address the broader policy or other issues for the development and handling of EIAs, contained in Attachment C to the paper.
- (107) The Committee thanked Australia and the United Kingdom for leading the ICG, and for presenting the report. Following the incorporation of minor amendments during the meeting, the Committee finalised the revision of the Guidelines for Environmental Impact Assessment in Antarctica.
- (108) The Committee also considered the broader policy and other issues raised during the intersessional work, and noted that these called for careful consideration.
- (109) The Committee thanked the United Kingdom for its offer to work with interested Members to develop a Working Paper to support further discussion of the broader policy and other EIA issues at CEP XX. The United Kingdom noted that, recognising comments by Members during the meeting, it would prioritise matters related to the establishment of a central repository for practical EIA guidance and resources, and updating the *Procedures for intersessional CEP consideration of draft CEEs* to include a standard term of reference on the appropriateness/adequacy of proposed mitigation measures. Several Members expressed interest in participating in the intersessional work.

**CEP advice to the ATCM on the revision of the Guidelines for Environmental Impact Assessment in Antarctica**

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- (110) Following consideration of the report of the ICG established to review the *Guidelines for Environmental Impact Assessment in Antarctica*, the Committee endorsed a revision to the Guidelines and agreed to continue its work on broader policy considerations. Noting that the existing Guidelines were adopted under Resolution 4 (2005), the Committee agreed to forward to the ATCM for adoption a draft Resolution to revise the Guidelines.
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- (111) The Republic of Korea presented IP 45 *Renovation of the King Sejong Korean Antarctic Station on King George Island, South Shetland Islands* in which the Committee was informed of planned renovations to its station, which will include the reconstruction of summer accommodation and laboratories and structural alterations to enhance the building's safety, durability and usability. It also planned to install a solar power system and replace existing fuel tanks with double skinned tanks. The IEE document for the proposed activities would be submitted to the Ministry of Foreign Affairs for approval in the coming year.
- (112) Referring to its inspection of the facilities (WP 29), China remarked that the King Sejong Korean Antarctic Station was a good scientific platform and expressed support for the planned renovations.
- (113) New Zealand presented IP 53 *A tool to support regional-scale environmental management*, which introduced a research programme, led by Landcare Research, to develop a tool to support broader scale environmental management. The proposed management tool would facilitate regional scale assessments of activities and impacts while allowing variations in environments to be more readily accounted for in assessments. New Zealand invited Members to attend an informal workshop on the development of the tool at the conclusion of the XXXIV SCAR Open Science Conference, to be held in Kuala Lumpur, Malaysia (27 August 2016).
- (114) Welcoming New Zealand's initiative, the United Kingdom remarked that it recognised the benefit of applying this tool in other areas of Antarctica.
- (115) Ecuador presented IP 122 *Licencia Ambiental de la Estación Científica Pedro Vicente Maldonado*. The Committee was informed that in August 2015 the Ecuadorian Antarctic Institute received the Environmental License for the Pedro Vicente Maldonado Scientific Station from the environmental authority of the Ecuadorian government. It also reported that, in order to

keep the license, the station has to undergo mandatory biennial audits on the application of the Environmental Management Plan for the station, also approved by the aforementioned authority. This plan has nine components that aim to protect both the environment and the station's personnel, and is subject to updates and improvements.

(116) The following papers were also submitted under this agenda item:

- IP 3 *Application of air dispersion modelling for impact assessment of construction/operation activities in Antarctica* (Belarus).
- IP 30 *Modernisation of GONDWANA-Station, Terra Nova Bay, northern Victoria Land* (Germany).
- IP 56 *Developing a blue ice runway at Romnoes in Dronning Maud Land* (Belgium).
- SP 6 rev. 1 *Annual list of Initial Environmental Evaluations (IEE) and Comprehensive Environmental Evaluations (CEE) prepared between April 1<sup>st</sup> 2015 and March 31<sup>st</sup> 2016* (ATS).

## **Item 9: Area Protection and Management Plans**

### ***9a) Management Plans***

*i) Draft Management Plans which have been reviewed by the Subsidiary Group on Management Plans*

(117) The convener of the Subsidiary Group on Management Plans (SGMP), Birgit Njåstad (Norway) introduced WP 31 *Subsidiary Group on Management Plans – Report on 2015/16 Intersessional Work (Norway)*, on behalf of the SGMP. The convener thanked all active participants in the SGMP for their hard work and reminded the Committee that all Members were welcome to join the SGMP. In accordance with terms of reference 1 to 3, the Group had been prepared to consider the following five draft Antarctic Specially Protected Area (ASPAs) management plans referred by the CEP for intersessional review:

- ASPA 125: Fildes Peninsula, King George Island (25 de Mayo) (Chile).
- ASPA 144: Chile Bay (Discovery Bay), Greenwich Island, South Shetland Islands (Chile).
- ASPA 145: Port Foster, Deception Island, South Shetland Islands (Chile).

- ASPA 146: South Bay, Doumer Island, Palmer Archipelago (Chile).
  - ASPA 150: Ardley Island, Maxwell Bay, King George Island (25 de Mayo) (Chile).
- (118) The SGMP advised the CEP that since the proponent had not been able to progress the review of these management plans during the intersessional period, the SGMP was not able to give further advice and complete the review process.
- (119) Chile informed the Committee that it anticipated submitting revised versions of the five management plans to the SGMP for review in the next intersessional period.
- ii) Revised draft Management Plans which have not been reviewed by the Subsidiary Group on Management Plans*
- (120) The Committee considered revised management plans for eight ASPAs. In each case, the proponent(s): summarised the suggested changes to the existing management plan; noted that it had been reviewed and revised with reference to the *Guide to the Preparation of Management Plans for Antarctic Specially Protected Areas* (the Guide); and recommended its approval by the Committee and referral to the ATCM for adoption. The Committee also considered a proposal from France to extend the existing management plan for ASPA 166 Port Martin for a further five years:
- a. WP 2 *Revised Management Plan for Antarctic Specially Protected Area No. 149 – Cape Shirreff and San Telmo Island, Livingston Island, South Shetland Islands* (United States).
  - b. WP 3 *Revised Management Plan for Antarctic Specially Protected Area No. 122 – Arrival Heights, Hut Point Peninsula, Ross Island* (United States).
  - c. WP 4 *Revised Management Plan for Antarctic Specially Protected Area No. 126 – Byers Peninsula, Livingston Island, South Shetland Islands* (United Kingdom, Chile and Spain).
  - d. WP 18 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPA) No. 167 Hawker Island, Princess Elizabeth Land* (Australia).
  - e. WP 26 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPA) No. 116: New College Valley, Caughley Beach, Cape Bird, Ross Island* (New Zealand).



- f. WP 27 *Revision of the Management Plan for Antarctic Specially Protected Area (ASPAs) No. 131: Canada Glacier, Lake Fryxell, Taylor Valley, Victoria Land* (New Zealand).
  - g. WP 36 *Revised Management Plan for ASPA No. 120, Pointe-Géologie Archipelago, Adélie Land* (France).
  - h. WP 37 *Revised Management Plan for ASPA No. 166, Port-Martin, Adélie Land. Extension Proposal for the Existing Plan* (France).
  - i. WP 40 *Revised Management Plan for Antarctic Specially Protected Area N°. 127 “Haswell Island” (Haswell Island and Adjacent Emperor Penguin Rookery on Fast Ice)* (Russian Federation).
- (121) With respect to WP 2 (ASPAs 149) and WP 3 (ASPAs 122), the United States noted that only minor changes to the existing management plans were proposed. Revisions had been made in consultation with international stakeholders, and amendments included editorial improvements relating to the description of the protected area and improvements to maps.
- (122) With respect to WP 4 (ASPAs 126), the United Kingdom noted that only minor changes were made to supporting information in the management plan, and a reference to the Antarctic Conservation Biogeographic Regions added. The United Kingdom and Chile also proposed that Spain be recognised as a co-managing Party for ASPAs 126.
- (123) With respect to WP 18 (ASPAs 167), Australia reported that only minor amendments were proposed to the management plan. Changes included updated population estimates for the southern giant petrel colony and a modification to section 7 specifying that overflights by aircraft, including unmanned aerial vehicles, in the Area were prohibited unless approved by a permit.
- (124) With respect to WP 26 (ASPAs 116) and WP 27 (ASPAs 131), New Zealand noted that minor revisions were proposed to the management plans, which had been updated in consultation with scientists and environmental managers who have worked in the Areas.
- (125) With respect to WP 36 (ASPAs 120), France explained that it had made significant editorial changes in various sections, but the substance of the management plan was not significantly modified. Changes included rewording of section 2 for clarity, modifying various maps and adding a general description of the area including fauna and geological information.

With respect to WP 37 (ASPAs 166), France explained that recent sea ice conditions in the region had continued to prevent safe access to the site, which remained valuable for the conduct of archaeological research. It therefore suggested that the management plan be extended for five years without any changes.

- (126) With respect to WP 40 (ASPAs 127), the Russian Federation reported that only minor changes were made to the management plan, including reference to the presence of the Lönnerberg skua (*Catharacta antarctica*) in the area (IP 71).
- (127) The Committee approved all of the revised management plans that had not been reviewed by the SGMP.
- (128) The Committee also approved the extension of the existing management plan for ASPAs 166 Port Martin for a further five years.
- (129) The Committee supported the proposal in WP 4 that Spain be recognised as co-managing Party for ASPAs 126, with the United Kingdom and Chile.

*iii) New draft management plans for protected/managed areas*

- (130) No new draft management plans for protected/managed areas were submitted.

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**CEP advice to the ATCM on revised management plans for ASPAs**

- (131) The Committee agreed to forward the following revised management plans to the ATCM for approval by means of a Measure

#	Name
ASPAs 116	New College Valley, Caughley Beach, Cape Bird, Ross Island
ASPAs 120	Pointe-Géologie Archipelago, Terre Adélie
ASPAs 122	Arrival Heights, Hut Point Peninsula, Ross Island
ASPAs 126	Byers Peninsula, Livingston Island, South Shetland Islands
ASPAs 127	Haswell Island (Haswell Island and Adjacent Emperor Penguin Rookery on Fast Ice)
ASPAs 131	Canada Glacier, Lake Fryxell, Taylor Valley, Victoria Land
ASPAs 149	Cape Shirreff and San Telmo Island, Livingston Island, South Shetland Islands
ASPAs 167	Hawker Island, Princess Elizabeth Land

(132) The Committee also agreed to advise the ATCM that the existing management plan for ASPA 166 Port-Martin, Terre-Adélie, should be extended for a further period of five years.

*iv) Other matters relating to management plans for protected/managed areas*

(133) The United Kingdom introduced WP 9 *The Status of Antarctic Specially Protected Area No. 107 Emperor Island, Dion Islands, Marguerite Bay, Antarctic Peninsula*, which noted that the Area had been designated for special protection since 1966 to ensure the protection of its emperor penguin breeding colony. At CEP XIV, the United Kingdom had alerted the Committee that its scientists had cast doubt over the continued existence of the colony (ATCM XXXIV - WP 18) and the Committee supported the United Kingdom's suggested approach to delay revision of the ASPA management plan for five years to enable the status of the colony to be confirmed. Subsequent monitoring work identified no substantial recovery of the earlier emperor penguin colony and aerial and automatic photography had shown only a few intermittent appearances of a few likely non-breeding emperor penguins. Following the United Kingdom's reassessment of the Area's suitability for ASPA status using the tools in Article 3 of Annex V, and given that the Area lacked any other values that justified special protection and that the projected increase in regional temperature would be likely to have a negative impact on future successful breeding, the United Kingdom sought the Committee's view on whether the additional protection afforded by ASPA status was still appropriate.

(134) ASOC stated that decisions to delist protected areas should not be taken lightly and suggested that the Committee should consider enhancing the protection of emperor penguin colonies at other sites, especially if ASPA 107 was delisted.

(135) The Committee thanked the United Kingdom for its comprehensive and systematic reassessment of the status of ASPA 107. It noted that the monitoring data presented by the United Kingdom had not shown any substantial recovery of the emperor colony, but also noted the observations of some emperor penguins at the site including some observations from IAATO operators.

(136) Some Members believed that, given the rigorous assessment done by the United Kingdom, there was a strong case for delisting the site. Following careful consideration, and with the support of the United Kingdom, the

Committee decided, however, that the ASPA status should be maintained for a further five years. It encouraged the United Kingdom to continue its monitoring using remote sensing techniques and other less resource intensive technologies, and to report back to the CEP. The Committee also encouraged other Members to provide any relevant monitoring data to assist with this further assessment.

- (137) During discussion of WP 9, several Members highlighted the importance of taking a dynamic, science-based approach to protected area management, including de-designation processes, in order to focus attention on those areas or values that require protection additional to that already provided in the Protocol in general. Noting that the Committee should be rigorous in its consideration of these matters, several Members suggested the development of procedures or criteria to inform the Committee's consideration of proposals to de-designate ASPAs, including in the context of the framework provided by the CCRWP. The Committee welcomed Norway's offer to lead work to inform further consideration of this issue at CEP XX. Several Members expressed an interest in collaborating with Norway in this work.
- (138) China introduced WP 29 *Report of the 2015/16 Intersessional Informal Discussions on the proposal for a New Antarctic Specially Managed Area at Chinese Antarctic Kunlun Station, Dome A and the follow-up work*. Following the Committee's considerations at CEP XVI, CEP XVII and CEP XVIII of China's proposal to designate an ASMA at the Chinese Antarctic Kunlun Station, Dome A, as well as the international informal discussions during the respective intersessional periods, this paper reported on further informal discussions held during the 2015/16 intersessional period. China responded to various concerns that Members had previously expressed, including: the values protected; international collaborative programmes; number of operators; overlapping activities; the appropriateness of designating an ASMA and the potential to use alternative tools; and the interpretation of Article 4, Annex V to the Protocol.
- (139) China gave an overview of past, current and potential future international research activities in the area and elaborated on ongoing infrastructural developments at Kunlun Station. China also noted that it expected that, in the near future, the volume of collaborative scientific activities, number of operators, and the volume and types of other activities in the area would increase. Recalling the CEP Workshop on Marine and Terrestrial Specially Managed Areas (2011), China reiterated its view that an ASMA was the most appropriate tool to proactively manage and protect the scientific

and environmental values at Dome A. Reaffirming its commitment to the provisions of the Protocol and international scientific collaboration, China requested that the Committee note the unique scientific and environmental values in the Dome A area and encourage Members to participate in further intersessional discussions led by China.

- (140) Argentina thanked China for its continuous commitment to foster debates on its proposal to establish an ASMA at Dome A. It also pointed out that a decision on this issue was needed, and it remained confident that the CEP would make best efforts to eventually find an agreement.
- (141) The Committee thanked China for leading the informal intersessional discussion and for providing the report on those discussions. The Committee also expressed its appreciation to Members that participated in the intersessional discussions.
- (142) The Committee recognised the scientific and environmental values of the Dome A area and its potential for more scientific research. It also noted that China was further developing its facilities and infrastructure at Dome A, and sincerely intended to promote the sharing of its facilities to promote international cooperation in scientific research. It welcomed China's aim to minimise the impacts of human activities on the Dome A environment and its desire to establish an appropriate management framework for the Dome A area.
- (143) While recognising that the proposal to designate an ASMA at Dome A had been underway for some time, several Members noted that they continued to hold reservations about the proposal. They noted that international science programmes and other international activities at Dome A had not yet been realised, and that there were currently no overlapping activities between multiple operators in the area. Recognising that these views would be kept under consideration in light of possible future changes in circumstances and activities at Dome A, the Members expressed their willingness to participate in further informal discussions with China on other management options for the area.
- (144) In responding to the concerns, China noted Article IV of Annex V to the Protocol permitted the designation of any area as an ASMA where activities were being conducted or may in the future be conducted. China stressed that its proposal focussed on not only current but also future pressures to the scientific and environmental values of Dome A. Referring to the current seven designated ASMAs, some of which had been proposed by single

Members, China expressed the view that the Committee had previously accepted a range of approaches to the designation of ASMAs. After considering the discussion of the Committee, China agreed to continue to lead informal intersessional work to discuss all the practical and possible management options for the Dome A area.

- (145) The Committee welcomed China's offer to lead informal intersessional discussions, and encouraged interested Members to participate, with a view to considering options for achieving China's management objectives for Dome A.
- (146) The United States presented IP 33 *Amundsen/Scott South Pole Station, South Pole Antarctica Specially Managed Area (ASMA No. 5). 2016 Management Report*, jointly prepared with Norway. The United States noted its progress with the review of the management plan and some of the diverse issues being addressed with Norway, including regular updates of the site maps, management of non-governmental activity and the arrangement of zones and sectors within the ASMA. It confirmed that a review would be available in the next year, following extensive stakeholder input.
- (147) IAATO thanked the United States and Norway for their paper, and their work revising the ASMA Management Plan. IAATO noted that it would trial the revision of overland approaches proposed in the paper, and stood ready to participate in the management group and assist with the development of further procedures.
- (148) The following papers were also submitted under this agenda item:
- IP 71 *Present zoological study at Mirny Station Area and at ASPA No. 127 "Haswell Island" (2011-2015)* (Russian Federation).
  - BP 11 *Aplicación del Plan de Manejo Ambiental en la Estación Maldonado* (Ecuador).

### **9b) Historic Sites and Monuments**

- (149) The United Kingdom introduced WP 12 *Managing Antarctic Heritage: British Historic Bases in the Antarctic Peninsula*, which reported on the heritage management programme undertaken by the British Antarctic Survey (BAS) and then the United Kingdom Antarctic Heritage Trust at historic sites on the Antarctic Peninsula over the past twenty years. The United Kingdom noted three key issues in relation to managing heritage in the Antarctic area: the high costs and time commitment; the presence of hazardous materials at

many of the sites; and the management of visitor behaviour at unoccupied sites. The United Kingdom noted that it strongly supported the moratorium on the introduction of new HSMs until guidelines addressing these issues had been developed.

- (150) Reflecting on lessons learned over this period, the United Kingdom recommended that CEP Members encourage greater international collaboration between those responsible for the management of Antarctic heritage and HSMs. This collaboration would include sharing and reviewing plans, and collectively ensuring Antarctic heritage was cared for to internationally recognised standards. It was also recommended that the CEP encourage Members to undertake assessments of the heritage value of HSMs and to develop management plans, particularly for new HSM designations. This included consideration of long term management and maintenance, and any plans for wider public engagement on the importance of the site. Finally, it was recommended that the CEP consider how it might communicate and share the significance of its shared Antarctic heritage more widely.
- (151) The Committee thanked the United Kingdom for the paper and congratulated the United Kingdom Antarctic Heritage Trust for its comprehensive work to protect historical sites in Antarctica. Members highlighted the importance of planning and international collaboration in care and management of Antarctic sites and monuments.
- (152) The Committee supported the recommendations in WP 12, and noted that the experiences and recommendations reported in the paper would be a helpful reference for others facing similar issues and for further discussion on the topic of heritage management in the Committee.
- (153) Norway introduced WP 30 *Consideration of protection approaches for historic heritage in Antarctica*, which summarised approaches to historical heritage management, including discussing advantages and disadvantages to *in situ* and *ex situ* preservation approaches for historic heritage values. Aiming to reach an appropriate balance between the motivation and intentions held in Annex V and Annex III to the Environment Protocol, Norway suggested that the CEP consider developing guidance for the assessment of appropriate preservation methods for heritage elements considered for HSM listing in Antarctica.
- (154) The Committee recalled its discussion on these matters at earlier meetings, and thanked Norway for the useful summary of approaches to historic

heritage management, including advantages and disadvantages of *in situ* and *ex situ* preservation.

- (155) The Committee noted there was a high level of interest in this issue among Members, both from the perspective of enhancing the protection of historic sites and balancing the provisions of Annex III and Annex V, and strongly supported the recommendations presented in WP 30.
- (156) Argentina stressed the need to consider the individual heritage value of items to each Member, and also expressed the need for more debate in relation to *ex situ* conservation as HSMs are a considered part of Antarctic heritage.
- (157) The Committee agreed to establish an ICG led by Norway and UK with the aim of developing guidance material for Parties' assessment of conservation approaches for the management of Antarctic heritage objects. The ICG is to work during the 2016/17 and 2017/18 intersessional period(s) with the following terms of reference for the 2016/17 intersessional period:
1. Develop a work plan for the development of guidance for the consideration of the most appropriate conservation approaches to the management of historic heritage elements.
  2. Identify questions that could constitute the core elements of the guidance material to be developed for the assessment of potential conservation approaches that could be used for the management of historic heritage elements as an alternative to listing of the object as an HSM, including further exploration of *inter alia* the following questions:
    - Consideration of how the age of an object in question has bearing on the management approach including its significance, current/recent usage and materials (including hazards);
    - Consideration of the national versus international significance of the heritage object in question;
    - Consideration of whether the existing suite of Antarctic HSMs already adequately covers the value of the object in question;
    - Consideration of whether an object is best maintained *in situ* to protect its value, or whether it can be better maintained and presented *ex situ*;
    - Consideration of whether an object would be better preserved or presented by archival methods or digitally;
    - Consideration of risks and challenges involved (resources and otherwise) in maintaining the object *in situ* and *ex situ*;



- Consideration of the state of conservation of the object at the time of designation and the potential need for rapid actions, as appropriate (short term management);
  - Consideration of the medium-long term management plan for the object if kept *in situ* and the implications (expertise, costs, realisation of benefits);
  - Consideration of the 'objective' of the heritage object, *ie*, will it be visited by visitors to Antarctica? Will it still be in use or part of a site still working? How does its management reflect its significance?;
  - Consideration of the wider value of the object to the outside world – how will it be made accessible more widely (if no-one knows about it who will care about it?);
  - Identification of resources, relevant expertise and heritage organisations to offer guidance and advice;
  - Exploration of the value of implementing a model of best practice for the care of Antarctic heritage objects for all parties; and
  - Identification of, when appropriate, potential international partners to aid or collaborate with in the conservation planning and execution.
3. Begin to implement the work plan as appropriate and work toward drafting of guidance material for the consideration of the CEP.
  4. Develop draft terms of reference for a second intersessional period.
  5. Report on progress to CEP XX.
- (158) The Committee noted the desirability of engaging heritage expertise associated with ICOMOS' International Polar Heritage Committee (IPHC) in the work and encouraged Members to involve their national members of IPHC in the work.
- (159) The Committee welcomed the offer from Birgit Njåstad (Norway) and Stuart Doubleday (UK) to act as ICG conveners.
- (160) Argentina introduced WP 47 rev. 2 *Incorporation of a historic wooden pole to HSM No. 60 (Corvette Uruguay Cairn), in Seymour (Marambio) Island, Antarctic Peninsula*, jointly prepared with Sweden. It proposed the revision of HSM 60 to add a historic cairn and wooden pole to the description of HSM 60, following the guidelines adopted in Resolution 5 (2011) and the additional information that could be added to the description of HSMs endorsed by CEP XV, according to the outcome of the ICG held

during 2011/12 on this matter. The paper suggested a text for the proposed description.

- (161) Noting the historical value of the site for both Parties, Sweden thanked Argentina for its initiative in preparing the expanded description of the site.
- (162) The Committee thanked Argentina and Sweden for providing notice of the discovery of this significant historic object, consistent with the provisions of Resolution 5 (2001), and agreed to forward the modified details for HSM 60 to the ATCM for adoption by means of a Measure.
- (163) Argentina introduced WP 48 rev. 1 *Notification of the location of historical pre-1958 remains in the vicinity of the Argentine Station Marambio*, jointly prepared with Norway, Sweden and the United Kingdom. The paper reported on the recent location of pre-1958 historical remains in the vicinity of the Argentine Station Marambio. The remains were linked to various well-known historical events spanning 1893 to 1945, involving Norwegian, Argentine, Swedish and British explorers. Considering the moratorium on HSM designation agreed by the Committee at CEP XVIII, Argentina, Norway, Sweden and the United Kingdom requested that the Committee either recognise the historical value of the site and recommend applying the interim protection afforded by Resolution 5 (2001) until it is ready to designate new HSMs; or, alternatively, consider HSM designation.
- (164) The Committee thanked Argentina, Norway, Sweden and the United Kingdom for notifying the discovery of this significant historical site consistent with the provisions of Resolution 5 (2001), and commended the Argentinean researchers for locating the site. There was broad recognition that in future this site would very likely be worthy of HSM designation. The Committee recommended that the interim protection measures afforded by Resolution 5 (2001) be applied to the site and looked forward to further considering the HSM proposal following the development of guidance on approaches to protect historic heritage in Antarctica.
- (165) The Republic of Korea introduced WP 51 *Proposal to add Antarctic King Sejong Station History Gallery (Dormitory No. 2) at the Antarctic King Sejong Station to the Historic Sites and Monuments*. It noted that Dormitory No. 2 would be renamed and conserved as the Antarctic King Sejong Station History Gallery to permanently commemorate the historical significance and scientific value of Korea's Antarctic research, and to allow Korea's scientific research and discovery to be on fuller display for both the international Antarctic community and the Korean public.

- (166) The Committee thanked the Republic of Korea for its proposal. While acknowledging the Republic of Korea’s initiative in putting forward the proposal, the Committee recalled its decision at CEP XVIII (CEP XVIII report paragraph 177) and decided to defer consideration of the proposal until it received further guidelines for the designation of HSMs. The Republic of Korea thanked the Committee and agreed to delay further action until the moratorium was lifted.
- (167) France presented IP 1 *Reinstalling the memorial plaque of Le Pourquoi Pas? on Petermann Island (Charcot’s cairn 1909, HSM 27)*, prepared jointly with IAATO. It noted that during the Antarctic summer season 2014-15, the memorial plaque of *Le Pourquoi Pas?*, was found on the ground, close to the cairn to which it was fixed. The crew of *L’Austral*, a vessel of the French company Ponant, member of IAATO, reinstalled the plaque in January 2016.

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**CEP advice to the ATCM on proposed modifications and additions to the List of Historic Sites and Monuments**

- (168) The Committee agreed to forward one proposal for a modification to the List of Historic Sites and Monuments to the ATCM for approval by means of a Measure.

#	Description
HSM 60	Wooden pole and cairn (I) and wooden plaque and cairn (II) at HSM No. 60 (Corvette Uruguay Cairn)

- (169) The Committee agreed to defer two proposals for additions to the List of Historic Sites and Monuments for further consideration following the development of guidance on approaches to protection of historic heritage in Antarctica:
- *Historical pre-1958 remains in the vicinity of Marambio Station;*
  - *Antarctic King Sejong Station History Gallery.*
- (170) The Committee agreed that the interim protection afforded to pre-1958 sites in accordance with Resolution 5 (2001) would apply to the historical remains in the vicinity of Marambio Station.
- (171) The Committee agreed to establish an ICG to work during the 2016/17 and 2017/18 intersessional periods with the aim of developing guidance material for Parties’ assessment of conservation approaches for the management of Antarctic heritage objects.
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**9c) Site Guidelines**

- (172) The United Kingdom introduced WP 32 *Site Guidelines for the Yalour Islands, Wilhelm Archipelago*, prepared jointly with Ukraine, the United States, Argentina and IAATO. It noted that the site contained one of the southernmost recorded gentoo penguin colonies as well as a number of other confirmed breeding bird species and a considerable coverage of mosses and lichens. The site had also seen a growth in visitor numbers in recent years.
- (173) The Committee thanked the United Kingdom, Ukraine, the United States, Argentina and IAATO for preparing the site guidelines and, recalling its discussions at CEP XVIII on the need for guidelines at this site, agreed to forward the guidelines to the ATCM for adoption.
- (174) The United Kingdom introduced WP 33 *Site Guidelines for Point Wild, Elephant Island*, prepared jointly with Chile and IAATO. This site was where Sir Ernest Shackleton's crew was rescued by the Chilean Naval vessel *Yelcho*, commanded by Captain Luis Alberto Pardo, in August 1916, and the location of HSM 53. The United Kingdom and Chile noted that current levels of visitation to the island were low, but it was anticipated that the historic importance of the site would continue to maintain interest in the location.
- (175) The Committee agreed to forward the site guidelines for adoption by the ATCM.
- (176) Ecuador introduced WP 45 *Assessment of moss communities nearby the tracks of Aitcho Island. Monitoring report*, prepared jointly with Spain. Referring to its inclusion in the Five-year Work Plan of the CEP at CEP XVI, the paper presented the results of its monitoring and recovery work at visitor trails which were closed on Barrientos Island four years ago. It reported that recolonisation of the lower track seemed to be progressing well. Ecuador and Spain advised the Committee that they would continue monitoring the recolonisation process.
- (177) Based on their observations, Ecuador and Spain suggested that the lower track remain closed, since it was still vulnerable to erosion and would be greatly affected by heavy circulation of visitors. They further recommended that the upper track be opened to visitors, since it appeared to have greater stability and resistance, and that the Aitcho Islands site guidelines be revised accordingly to manage the impact visitors might have on the upper track. Spain also remarked that opening the upper track might assist in dispersing impacts elsewhere on the island.

- (178) The Committee thanked Ecuador and Spain for their monitoring efforts and supported the recommendation that the lower track should remain closed.
- (179) IAATO noted that, as a precautionary measure, both tracks would remain closed to its operators. Several Members and ASOC commended IAATO for its precautionary approach. Several Members commented on the desirability of ensuring a comprehensive approach that would also apply to non-IAATO operators.
- (180) Recalling its earlier acknowledgement of the importance of preventing further damage to this site, the Committee agreed that it would be preferable to take a precautionary approach and keep the upper track closed as well.
- (181) The Committee encouraged Ecuador and Spain to continue the long-term monitoring to assess the recovery of vegetation on both tracks and to provide future reports on their status.

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**CEP advice to the ATCM on new Site Guidelines**

- (182) The Committee agreed to forward the following new Site Guidelines to the ATCM for adoption:
- *Yalour Islands, Wilhelm Archipelago*
  - *Point Wild, Elephant Island*

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- (183) IAATO presented IP 105 *Report on IAATO Operator Use of Antarctic Peninsula Landing Sites and ATCM Visitor Site Guidelines, 2015-16 season*. It contained data collected from its members' Post Visit Report Forms. It noted that Antarctic tourism continued to be primarily focused on traditional commercial ship-borne tourism in the Antarctic Peninsula, which accounted for about 95% of all landed activity. It also observed that though the number of visitors had increased, the number of visited sites had remained relatively stable. The total number of visitors had not yet reached the peak of 2007-2008. The total number of voyages had also increased, which was reflective of the growth of air/cruise tourism.
- (184) The United Kingdom presented IP 62 *National Antarctic Programme use of locations with Visitor Site Guidelines in 2015-2016*, prepared jointly with Argentina, Australia and the United States. This paper presented an overview of information provided by Parties on visits by their National Antarctic Programme personnel to locations with ATCM Site Guidelines for Visitors in place, during the 2015/16 season. In order to improve the scope of the analysis, Parties were encouraged to continue to record information about

visits of staff of National Programmes to sites that have Site Guidelines for visitors. It was also noted that it may be valuable for the CEP to review this information again in the future. The proponents urged COMNAP to remind its members of the desirability of using Visitor Site Guidelines for National Antarctic Programme recreational visits, noting the CEP's advice in Resolution 4 (2014).

- (185) The Committee thanked the United Kingdom for its efforts to lead this work as well as other Members for their contribution to this initiative to gain a fully comprehensive view of the visited sites. IAATO noted that reported use was useful in helping it understand how the ATCM Site Guidelines were used by National Antarctic Programmes. The Committee urged Members to continue to collect this information to assist in its consideration of human impacts at frequently visited sites, and the effectiveness of Site Guidelines, and noted that it may be valuable to give further consideration to these issues in the future.
- (186) Argentina presented IP 101 *Analysis of Management Measures of the Tourism Management Policy for Brown Scientific Station*, which reported on the implementation of the General Guidelines for Visitors to Brown Station during the 2015/16 season. Argentina noted that the introduction of the Guidelines had contributed to the avoidance of disturbances in the performance of the scientific and logistic tasks of the station. Argentina also highlighted the benefits of the Guidelines and suggested that all Members receiving visits to their scientific stations could consider the development of guidelines.
- (187) Thanking Argentina for its paper, IAATO noted that it would report on the feedback to its members through its preseason notification and welcomed feedback from Members about visitor management at stations at any time. IAATO further thanked all Members that made it possible for IAATO member operators to visit their stations, and noted the significant value these visits provided for visitors and field staff to learn about National Antarctic Programmes.
- (188) The following paper was also submitted under this agenda item:
- IP 104 rev.1 *Patterns of Tourism in the Antarctic Peninsula Region: a 20-year analysis* (United States, IAATO).

#### ***9d) Marine Spatial Protection and Management***

- (189) Belgium introduced WP 8 *The concept of 'outstanding values in the Antarctic marine environment'*, which presented the report of the ICG on this topic established at CEP XVIII. The ICG encouraged Members to

consider outstanding values of the marine environment under Annex V of the Environment Protocol when proposing new ASPAs or ASMAs, and when revising existing ones. The ICG also encouraged Members to make more frequent use of the Guidelines annexed to Resolution 1 (2000). The ICG further recommended Members apply the concept of outstanding values to the Antarctic marine environment, including considerations of potential threats to the environment and any other issue deemed pertinent, and to provide the Committee with a short list of existing ASPAs and ASMAs where the concept could be tested. The ICG also recommended that the Committee increase its cooperation with CCAMLR to better understand its approaches to marine protection and to avoid the duplication of effort.

- (190) The Committee thanked Belgium for its work leading the ICG as well as all Members who participated in the discussion. Some Members expressed their support for the recommendations of the ICG and indicated their intention to follow the practical advice contained in it.
- (191) Recollecting previous discussions on the matter, China, echoed by Japan, expressed the view that matters addressed in the paper needed further consideration by the Committee. These matters referred to the following issues: the dynamics and resilience of the marine environment compared to the terrestrial environment; that other elements of the Environment Protocol and its annexes could also be considered as options for the protection of outstanding values in the Antarctic marine environment; and that area protection mechanisms could not prevent or reverse natural processes. China also considered that full and appropriate application of the Guidelines annexed to Resolution 1 (2000) is a more relevant issue than emphasising the frequency of its use. Particular consideration should be given to the robustness of the marine environment, as well as to the existing protection provided by the Antarctic Treaty system. China further noted that discussions were needed to ensure ASPAs did not impede scientific research, associated logistic support and the transit of the sea. In addition, there should be a clear understanding of how to avoid duplicating the work of CCAMLR. China also suggested that Belgium continue to lead the intersessional discussion on the above issues, and then move ahead when further agreement can be reached.
- (192) Noting that ASPAs played the dual roles of protecting the values of an area and protecting scientific investigation, ASOC stressed that it did not consider that ASPAs could impede the progress of science in an area.
- (193) Referring to the ICG recommendations, the Committee noted the importance of Parties considering values in the marine environment when proposing

new ASPAs or ASMAs or when revising existing management plans. The Committee agreed that values in the marine environment could appropriately be considered when applying the provisions of Article 3 of Annex V, and other provisions of the Protocol and its annexes, including for example the provisions in Annex III intended to prevent pollution of the marine environment. The Committee further recognised the benefits of increasing its cooperation with CCAMLR and the importance of avoiding any duplication of effort.

- (194) ASOC presented IP 83 *ASOC's update on Marine Protected Areas in the Southern Ocean*, which reported on discussions of the establishment of Marine Protected Areas (MPAs) in CCAMLR, whose area of responsibility overlaps with the Antarctic Treaty area. Mindful of the importance of adopting a representative network of MPAs to the conservation of the Southern Ocean, and acknowledging the early substantial progress made early on by CCAMLR, ASOC noted the past several years had been characterised by delays and the erosion by negotiation of the current MPA proposals. ASOC hoped that in the year of the 25<sup>th</sup> anniversary of the signature of the Protocol, the bold, forward thinking used by the ATCM in the past could help inspire CCAMLR members in their deliberations on MPAs, and that CCAMLR would adopt the MPA proposals for East Antarctica and the Ross Sea at CCAMLR XXXV in 2016.
- (195) The Committee thanked ASOC for its paper.
- (196) Argentina also expressed its gratitude to ASOC for its paper, as well as for its significant contributions to the Domain 1 MPA process, in relation to capacity building on the use of systematic conservation tools.
- (197) Argentina presented IP 65 *The relevance of the MPA designation process in Domain 1 in the current Climate Change context*, prepared jointly with Chile. Argentina reported on the process for the designation of a representative system of MPAs in Domain 1, highlighting that the process itself transcends the mere objective of MPA designation. Argentina highlighted that the process integrates, exposes and analyses all known information, not only contributing to the best science available but also providing an exceptional platform for data sharing further improving the decision making process. Argentina further noted the compilation of data can be of great use in monitoring climate change, identifying knowledge gaps, promoting cooperation amongst Parties, and adding transparency to MPA related processes. Finally, Argentina warmly thanked all contributors to the project, including joint proponent Chile, and the United Kingdom, the United States, and other Members who contributed data.



- (198) The Committee thanked the authors for the paper. It acknowledged that the process of collecting data for the MPA in Domain 1 would be beneficial for broader conservation management.

**9e) Other Annex V Matters**

- (199) The United Kingdom introduced WP 5 *Revision of the 'Guide to the presentation of Working Papers containing proposals for Antarctic Specially Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monuments'*. The United Kingdom recommended that the Committee acknowledge the benefit of the provision of additional information on how protected areas fit within existing systematic environmental-geographical framework tools. It further encouraged the Committee to recommend to the ATCM revisions to 'Template A: Cover sheet for a Working Paper on an ASPA or ASMA' appended to Resolution 5 (2011) concerning the provision of data on Antarctic Conservation Biogeographic Regions and Important Bird Areas within proposed protected areas.
- (200) The Committee thanked the United Kingdom for the paper, and agreed that it was beneficial for ASPA proponents to provide information on how proposed protected areas fit within systematic environmental geographic framework tools.
- (201) Following minor amendments to the suggested new questions presented in WP 5, and one existing question, to reflect that the concept of representativeness was not applicable to all protected areas, the Committee agreed that the *Guide to the presentation of Working Papers containing proposals for Antarctic Specially Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monuments* should be amended to include questions relating to Antarctic Conservation Biogeographic Regions and Important Bird Areas.

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**CEP advice to the ATCM on revision of the Guide to the presentation of Working Papers containing proposals for Antarctic Specially Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monuments**

- (202) The Committee agreed to advise the ATCM that it recommended revising 'Template A: Cover sheet for a Working Paper on an ASPA or ASMA' appended to the *Guide to the presentation of Working Papers containing proposals for Antarctic Specially Protected Areas, Antarctic Specially Managed Areas or Historic Sites and Monument* adopted under Resolution 5 (2011) to include the following new and revised questions:

- (6) If relevant, have you identified the main Environmental Domain represented by the ASPA/ASMA (refer to the 'Environmental Domains Analysis for the Antarctic Continent' appended to Resolution 3 (2008))? Yes/No (If yes, the main Environmental Domain should be noted here).
- (7) If relevant, have you identified the main Antarctic Conservation Biogeographic Region represented by the ASPA/ASMA (refer to the 'Antarctic Conservation Biogeographic Regions' appended to Resolution 6 (2012))? Yes/No (If yes, the main Antarctic Conservation Biogeographic Region should be noted here).
- (8) If relevant, have you identified any Antarctic Important Bird Areas (Resolution 5 (2015)) represented by the ASPA/ASMA (refer to the 'Important Bird Areas in Antarctica 2015 Summary' appended to ATCM XXXVIII - IP 27 and the full report available at: <http://www.era.gs/resources/iba/>)? Yes/No (If yes, the Important Bird Area(s) should be noted here).

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- (203) The United Kingdom introduced WP 6 *Templates to summarise the prior assessment of a proposed Antarctic Specially Protected Area (ASPA) or Antarctic Specially Managed Area (ASMA) for subsequent consideration by the CEP*, prepared jointly with Norway. This paper followed the adoption at CEP XVIII of the Guidelines: A prior assessment process for the designation of ASPAs and ASMAs (see Appendix 3 to CEP XVIII Report). In order to help proponents of new ASPA and ASMA designations summarise their findings, consistent with the Guidelines, the United Kingdom and Norway proposed that the CEP consider recommending the non-mandatory use of the two short templates included in WP 6.
- (204) The Committee thanked the United Kingdom and Norway for the paper and for preparing the suggested templates. It supported the intent of the proposal, which was to provide a practical and non-mandatory means of facilitating the provision of information consistent with the Guidelines agreed at CEP XVIII, and not to delay the designation of new areas. The Committee noted that Argentina had presented a similar proposal to an earlier meeting.
- (205) Argentina welcomed the fact that the Committee had considered this proposal, which goes in line with a similar initiative made by Argentina in 2010 (CEP XIII - WP 50) that could not reach consensus at that occasion.
- (206) Several Members expressed a desire to contribute to the further development of the templates. Belgium considered that the templates would be very useful

for its preparatory work to designate an ASPA in the Antarctic Conservation Biogeographic Region of Dronning Maud Land.

- (207) The Committee welcomed the offer by the United Kingdom and Norway to consult with interested Members during the intersessional period, and to present an updated proposal to CEP XX. The Committee noted that the templates and Guidelines could be merged into a single document.
- (208) SCAR introduced WP 23 *SCAR Code of Conduct for Activity within Terrestrial Geothermal Environments in Antarctica*, which provided guidance on practical measures to minimise impacts by scientists undertaking fieldwork in terrestrial geothermal areas. SCAR highlighted that the development of the Code of Conduct had involved consultation with policy makers, environmental managers, scientific experts, SCAR Subsidiary Groups and COMNAP. It recommended that the CEP consider the Code of Conduct and, if agreed, encourage its dissemination and use when planning and undertaking activities within terrestrial geothermal environments in Antarctica.
- (209) The Committee warmly thanked SCAR for its work to finalise the Code of Conduct. The Committee recognised the broad and extensive consultation that had been undertaken in the development of the Code of Conduct, and thanked all Members that had engaged in the process, as well as COMNAP, and other contributors.
- (210) The Committee recognised the value of the Code of Conduct for supporting the planning and conduct of activities in terrestrial geothermal areas to minimise risks to the high scientific and environmental values of such areas. Belgium appreciated that the specific guidance for not yet visited geothermal areas will enable the safeguarding of the exceptional value for the research of these areas.
- (211) The Committee agreed to encourage the dissemination and use of the Code of Conduct, noting that the guidance presented should be applied as appropriate, according to the characteristics of each geothermal area.
- (212) The Committee noted that SCAR had developed several other Codes of Conduct that were also of great utility, and that it would be beneficial to similarly encourage the dissemination and use of these materials through a Resolution of the ATCM. The Committee welcomed SCAR's willingness to bring forward its other Codes of Conduct in a Working Paper to CEP XX.

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**CEP advice to the ATCM on the SCAR Code of Conduct for Activity within Terrestrial Geothermal Areas in Antarctica**

- (213) The Committee endorsed the SCAR Code of Conduct for Activity within Terrestrial Geothermal Environments in Antarctica, and agreed to forward to the ATCM for approval a draft Resolution on encouraging the dissemination and use of the Code of Conduct.
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- (214) Norway introduced the second part of WP 31 *Subsidiary Group on Management Plans – Report on 2015/16 Intersessional Work*, which reported on the SGMP’s intersessional work in accordance with terms of reference 4 and 5. Recalling that CEP XVIII had acknowledged the need for guidance material on establishing ASMA’s and for preparing and reviewing ASMA management plans, the SGMP convener presented a draft guide for assessing whether an ASMA was the most appropriate management tool for an area in question. Its aim at this stage was to gather feedback on the draft as a basis for a new round of discussion and text development during the 2016/17 SGMP intersessional period, with a view to having this document adopted by CEP XX. Norway also reported on the SGMP’s proposed work plan for the 2016/17 intersessional period.
- (215) The Committee thanked the SGMP for its work relating to terms of reference 4 and 5 and Birgit Njåstad (Norway) and Dr Polly Penhale (United States), for jointly leading the SGMP’s discussions on developing ASMA guidance. The Committee agreed the proposed work plan for the coming intersessional period should include work to finalise the development of guidance on whether an area should be designated as an ASMA, and to initiate the development of guidance on how to present a management plan if an ASMA designation was identified as the most appropriate management tool. The Committee urged all interested Members to participate in the SGMP’s further work to develop of ASMA guidance.
- (216) The Committee agreed to adopt the SGMP’s proposed work plan for 2016/17:

<b>Terms of Reference</b>	<b>Suggested tasks</b>
ToR 1 to 3	Review draft management plans referred by CEP for intersessional review and provide advice to proponents (including the five postponed plans from the 2015/16 intersessional period).

ToR 4 and 5	Work with relevant Parties to ensure progress on review of management plans overdue for five-yearly review.
	Continue the work to develop guidance for preparing and reviewing ASMA management plans in according with agreed work plan for the process, <i>ie</i> , finalising work on developing guidance on determining whether an area should be designated as an ASMA, and initiating work on developing guidance for the process of preparing a management plan once there is a conclusion that the ASMA tool is the most appropriate tool to manage the area under discussion.
	Review and update SGMP work plan
Working Papers	Prepare report for CEP XX against SGMP ToR 1 to 3
	Prepare report for CEP XX against SGMP ToR 4 and 5

- (217) The Committee expressed its sincere thanks to Birgit Njåstad from Norway for her excellent work as convenor of the SGMP for the previous four years. It also reflected on the substantial improvement the SGMP had made to the efficiency of the CEP’s consideration of new and revised management plans, and to its broader work on area protection and management.
- (218) ASOC introduced IP 80 *A Systematic Approach to Designating ASPAs and ASMAs*, which provided preliminary suggestions on how to expand the protected areas system under the Environment Protocol in order to comply with the requirements of Annex V, Articles 3 and 4. It recommended that Parties consider strategically using ASPAs and ASMAs to regulate current and potential future tourism. ASOC pointed out the clear need for designation of a systematic planning process based on best practices in conservation management.
- (219) SCAR noted that spatially explicit conservation planning processes, including elements of the systematic processes outlined by ASOC, have the potential to complement and build on tools that exist under the Protocol, including the Environmental Domains Analysis (Resolution 3 (2008)) and the Antarctic Conservation Biogeographic Regions (Resolution 6 (2012)). SCAR suggested that contemporary conservation planning techniques have significant potential to inform the extension of the current terrestrial protected area network and that such techniques can be utilised in a manner that is consistent with the requirements of the Protocol. SCAR indicated that it would continue to bring new research on this topic to the Committee at future meetings.
- (220) The Committee thanked ASOC for its paper, which addressed an issue identified as a high priority in its Five-year Work Plan. It also welcomed

SCAR's offer to report back to a future CEP meeting on its related research activities.

- (221) SCAR presented IP 31 *Antarctic Geoconservation: a review of current systems and practices*, which reported on current threats to Antarctic geological features and detailed existing systems for their protection. The paper included a list of considerations relating to the protection of Antarctica's significant geological and paleontological localities and specimens for future Antarctic study. It further noted that a comprehensive paper on the findings would be presented in 2018.
- (222) The Committee thanked SCAR for its paper, and noted that the importance of enhancing the protection of geological values, including fossils, had been highlighted at previous meetings. The Committee welcomed the useful and up-to-date review of current systems and practices for Antarctic geoconservation, and looked forward to the report on these matters under preparation by the SCAR Action Group on Geological Heritage and Geoconservation, which would be submitted to the CEP meeting in 2018.
- (223) The United States presented IP 39 *Inspections of Antarctic Specially Protected Areas in the Ross Sea and Antarctic Peninsula Regions by the United States Antarctic Program*, which reported on inspections conducted at eight ASPAs in the Ross Sea and Antarctic Peninsula regions. While noting that all ASPAs visited continued to protect the special values that were the basis for the original designation, the United States noted a common need for clear and adequate markings on the ground and on ASPA maps of boundaries, landing locations, entry points, and trails. The United States anticipated that its paper would be useful in future reviews of relevant ASPA Management Plans. The United States encouraged others conducting occasional inspections to ensure that the management plans are fulfilling the goal of protecting the values and to note potential changes in the areas in light of ongoing climatic and ecological changes in Antarctica.
- (224) Norway presented IP 113 *Recent findings from monitoring work in ASPA 142 Svarthamaren*, which reported on significant changes in the Antarctic petrel colony in the ASPA 142. Norway noted that it had provided the report as a response to obligations arising from the Protocol on informing Parties about any important changes to ASPAs, and also noted the relevance of this information to the discussions relating to assessment of an area's continued value as a protected area.

- (225) The Committee thanked Norway for the report on changes at ASPA 142, in accordance with Article 10(b) of Annex V to the Protocol.

## **Item 10: Conservation of Antarctic Flora and Fauna**

### ***10a) Quarantine and Non-native Species***

- (226) The United Kingdom introduced WP 13 *Report of Intersessional Contact Group on Revision of the CEP Non-native Species Manual*, which reported on the results of the ICG established at CEP XVIII to revise the CEP Non-native Species Manual. The United Kingdom reminded the Committee of the Priority 1 issue 'Introduction of non-native species' identified in the CEP Five-year Work Plan, and presented the CEP Non-native Species Manual in draft.
- (227) The Committee thanked the ICG convener, Dr Kevin Hughes, and all participants for the comprehensive review and revision of the manual, noting the substantial body of work involved.
- (228) The Committee endorsed the revised Non-native Species Manual. It agreed to continue developing the Manual with the input of SCAR and COMNAP on scientific and practical matters respectively, and also recognised the value of working more closely with SC-CAMLR on marine non-native species issues.
- (229) The Committee agreed to incorporate the Non-native Species Work Plan prepared by the ICG into its Five-year Work Plan and to undertake a review of the Manual and progress against the work plan in four to five years.
- (230) The Committee requested that the Antarctic Treaty Secretariat publish the Manual on its website, as an online dynamic tool to be updated in line with new developments. In response to a query from Argentina, the Antarctic Treaty Secretariat noted that it could also upload the revised Manual as a PDF file in all official languages, and could update the PDF version to reflect future revisions agreed by the Committee.
- (231) Argentina noted that it was testing a manual on preventing the introduction of non-native species specially adapted to its activities in Antarctica and that it would present the manual at CEP XX for possible incorporation into the CEP Non-native Species Manual.
- (232) Australia drew the Committee's attention to BP 8 *Installation of a new waste water treatment facility at Australia's Davis Station*, which reported on its

progress to develop a new waste water treatment facility at Davis station, with the objective of mitigating environmental risks to the coastal marine environment, particularly the risk of introducing non-native species and genetic material.

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**CEP advice to the ATCM on the revision of the CEP Non-native Species Manual**

- (233) The Committee endorsed a revision to the CEP Non-native Species Manual. Noting that the current version of the Manual had been adopted under Resolution 6 (2011), the Committee agreed to forward to the ATCM for adoption a draft Resolution to revise the Manual and encourage its dissemination and use.
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- (234) The Republic of Korea introduced WP 52 *Non-native flies in sewage treatment plants on King George Island, South Shetland Islands*, prepared jointly with the United Kingdom, Chile and Uruguay. The paper reported on non-native flies that had colonised several station sewage treatment plants on King George Island. The Republic of Korea indicated its willingness to facilitate coordinated collaborative research and management action by all affected Parties to: identify non-native flies present in the local area; determine their local distribution and origin; and identify practical and coordinated management responses for fly eradication or control.
- (235) The Committee thanked the Republic of Korea, the United Kingdom, Chile and Uruguay for the advice on the presence of the non-native flies, welcomed their ongoing efforts to address this issue, and expressed support for the recommendations contained in WP 52.
- (236) It was noted that some species of non-native flies only survived in milder climates and therefore would not spread beyond heated buildings. In this case, the identified species was originally pre-adapted to cold environments and therefore has the potential to spread to the local environment. China noted that the Great Wall Station had been checked and no non-native flies were found, and expressed its willingness to cooperate with other neighbouring Parties on King George Island to find out the reason for the introduction of the non-native flies.
- (237) Noting that the issue of non-native species introduction was a high priority in its Five-year Work Plan, the Committee agreed that Parties with stations on King George Island should check their waste water treatment plants for non-native invertebrate infestations and, if present, should join collaborative



research efforts to identify and determine the origin of these species. Several Members offered to share their experiences on the challenges of locating and eradicating non-native species in the context of waste water treatment plants, as well as more general issues related to waste water treatment, both on King George Island and elsewhere in Antarctica. Several Members noted that they were following the management efforts on King George Island with interest.

- (238) COMNAP informed the Committee that this paper had already been brought to the attention of COMNAP members, and that it would discuss the extent of waste water treatment plant infestations, as well as best practice for prevention and response, at its upcoming annual general meeting in Goa, India, from 16-18 August 2016. COMNAP agreed to report back on its discussions at the next meeting.
- (239) The United Kingdom presented IP 27 *Introduction of biofouling organisms to Antarctica on vessel hulls*, which provided a summary of recent research on the levels of hull fouling on the British Antarctic Survey's RRS *James Clark Ross* between 2007 and 2014 at Rothera Research Station. It noted that better quantification of the risk of marine non-native species introductions posed by vessel hulls to Antarctic environments may inform the development of appropriate management responses. Further hull surveys, on a wider variety of vessels, throughout Antarctica may yield valuable information on the likelihood of marine species introductions.
- (240) The Committee thanked the United Kingdom for the paper and noted that the information presented would be relevant to work scheduled in its updated Five-year Work Plan to address the risk of marine non-native species introductions. Spain reminded the Committee of COMNAP's previous work on anti-fouling, presented at CEP IX (ATCM XXIX - IP 83) and the conclusions therein. Portugal also remarked that further research was required regarding non-native species in the Southern Ocean.
- (241) Spain presented IP 57 *Monitoring for the presence of Poa pratensis at Cierva Point after the eradication*, jointly prepared with the United Kingdom and Argentina. It stated that this non-native species was introduced to Antarctica in 1954-55 and that an operation to eradicate it was undertaken in 2015. No repopulation was observed when monitored in January 2016.
- (242) The Committee welcomed the co-authors' preliminary findings that, following the eradication activity at Cierva Point, the monitoring activities had not detected the presence of any non-native species.

- (243) Poland presented IP 60 *Next step in eradication of non-native grass Poa annua L. from ASPA No 128 Western Shore of Admiralty Bay, King George Island, South Shetland Islands* which described the outcomes of field work done in 2015-2016 to eradicate *Poa annua* grass and research conducted during the process.
- (244) The United Kingdom recognised the importance of this work and encouraged Poland to provide further updates to the Committee on its eradication efforts.
- (245) IAATO presented IP 119 *IAATO Procedures Upon the Discovery of a High Mortality Event*, which described the procedures IAATO used to guide field staff on the discovery of a high mortality event, and reported on a recent instance of their application. It reported that the paper would be included in the CEP Non-native Species Manual, in response to a request through the recent ICG.

#### **10b) Specially Protected Species**

- (246) No papers were submitted under this agenda item.
- (247) Norway noted that the Antarctic Environments Portal contained a new article on the status of the Ross seal, that the CEP could usefully refer to this article in consideration of the status of this specially protected species in the near future, and that it would be relevant to have further articles on species at risk due to climate change available through the Portal when working to follow up on the CCWRP action/task relating to the assessment of species at risk.

#### **10c) Other Annex II Matters**

- (248) SCAR presented IP 38 *Antarctica and the Southern Ocean in the Context of the Strategic Plan for Biodiversity 2011-2020*. Introducing this paper, SCAR noted that to date, Antarctica and the Southern Ocean have not been adequately represented in global biodiversity assessments and efforts for its conservation. One of the most significant of these is the Strategic Plan for Biodiversity 2011-2020 and its associated 20 Aichi Targets. An assessment of progress against these targets globally will be made in 2020. SCAR, the Principality of Monaco and partners held a meeting of biodiversity, legal and policy experts to assess Antarctic and Southern Ocean biodiversity and its conservation status in the context of the Strategic Plan. The aims of the meeting and its associated activities were to ensure that the considerable

biodiversity of the Antarctic and significant collaborative efforts to ensure its conservation are not omitted from any global assessment. The initial outcomes of the meeting are presented in IP 38. Notable findings are that for some areas of conservation, in the context of the Aichi Targets, Antarctica and the Southern Ocean are in a leading position globally. The work on non-native species by the CEP Members, Parties and others, such as COMNAP, IAATO and ASOC, is a clear example of collaboration for conservation success. SCAR informed the Committee that the full outcomes of the Monaco Assessment meeting will be published in 2016 and reported to CEP XX.

- (249) The Committee thanked SCAR and Monaco for this important benchmarking exercise, looked forward to receiving the full report in due course, and noted the importance of ensuring that Antarctica is included in planned global biodiversity assessments.
- (250) IAATO presented IP 107 *How to be a Responsible Antarctic Visitor: IAATO's New Animated Briefings*, which introduced short animated briefings to supplement IAATO's existing Mandatory Briefing. IAATO produced the films in English with subtitles in nine other languages, and noted that the videos were designed to reinforce key messages about being a responsible visitor in a concise way easily understandable by a wide audience. IAATO also presented one of the videos to the Committee.
- (251) IAATO presented IP 121 *IAATO Wildlife Watching Guidelines for Emperor Penguins and Leopard Seals*, which reported that IAATO Members have adopted two new sets of wildlife watching guidelines, one for emperor penguins and one for leopard seals, which augment existing guidelines.
- (252) The Committee thanked IAATO for its useful contribution and for regularly updating the CEP on its activities.

### **Item 11: Environmental Monitoring and Reporting**

- (253) New Zealand introduced WP 16 *A methodology to assess the sensitivity of sites used by visitors: Prioritising future management attention*, prepared jointly with Australia, Norway and the United States. The paper provided an update on work towards a method for assessing the sensitivity of sites to tourist visitation, in accordance with Recommendation 3 from the 2012 CEP Tourism Study which recommended that the CEP should develop an approach that would support the more systematic assessment of the sensitive features present at visitor sites. As a practical first step, the paper sought to establish a simple method that considered the presence of values, and for

expert judgement to be applied to assess the potential for normal tourism activity to have an impact on these values. The method was not intended to be used to prescribe specific management arrangements for any particular site, but rather as a systematic approach to drawing on available information and expert judgment to assess the sensitivity of sites to tourist visitation, with a view to assisting the CEP in prioritising management attention. The authors invited Members to provide feedback on the approach outlined in the paper to inform further work in the 2016/17 intersessional period.

- (254) The Committee welcomed the report on progress made by New Zealand, Norway, Australia and the United States to develop a method of assessing site sensitivity in accordance with Recommendation 3 from the 2012 CEP Tourism Study.
- (255) Members raised several points for consideration in the further development of the methodology, including: the concepts of relative and inherent site sensitivity; the size of the site; likely use of the site; distribution of values on the site; temporal factors; and the importance of evaluating the methodology in the field.
- (256) ASOC thanked New Zealand, Norway, Australia and the United States for starting the work, and remarked that it would be useful to develop a rapid assessment procedure for consistent assessment across sites.
- (257) The Committee encouraged Members and Observers to provide feedback on the approach outlined in this paper and noted that a number of Members, IAATO and ASOC expressed an interest in contributing to intersessional work ahead of CEP XX. IAATO also noted that its field staff have expert knowledge of the most visited sites and could assist with the work if required.
- (258) Portugal presented IP 8 *Assessment of trace element contamination within the Antarctic Treaty Area* jointly with Chile, Germany, the Russian Federation and the United Kingdom. The paper outlined the assessment of trace elements in soil and moss samples collected from Antarctica. It also noted the importance of sharing monitoring data from the area in order to contribute to the future monitoring research and policy development.
- (259) Chile presented IP 96 *Environmental Monitoring in Fildes Bay. Coastal Environment Observation Program of Chile (P.O.A.L)*, which alerted the Committee to the programme that included data on lead, arsenic and hydrocarbon concentration at sediments in Fildes Bay. It also noted that more information was available (in Spanish) at [www.directemar.cl](http://www.directemar.cl), in the link 'Aquatic Environment/POAL Data'.

- (260) SCAR presented IP 32 *Report on the 2015-2016 activities of the Southern Ocean Observing System (SOOS)*, which recounted that in 2015 SOOS finalised its Five-year Implementation Plan, which following an external review facilitated by SCAR, would be made available to the community. Other key milestones for SOOS included: significant progress in the development of regional working groups for implementing the observing system in the field; the submission of a publication on ecosystem essential ocean variables; and progress in a number of capability working groups, such as Enhancing Observations under Ice. In addition, SOOS, together with SCAR and the WCRP Climate and Cryosphere project were in the final stages of a report on Southern Ocean Satellite Requirements. SCAR also thanked Australia for supporting the secretariat of SOOS in Hobart.

### **Item 12: Inspection Reports**

- (261) China introduced WP 22 *Inspection undertaken by the People's Republic of China in accordance with Article VII of the Antarctic Treaty and Article XIV of the Protocol on Environmental Protection* and referred to IP 48 *Report of the Antarctic Treaty Inspections undertaken by the People's Republic of China in accordance with Article VII of the Antarctic Treaty and Article 14 of the Environment Protocol: April 2016*. It reported on the Antarctic Treaty inspections undertaken between 25 and 28 December 2015, which involved six research stations of the Russian Federation, Chile, Uruguay and the Republic of Korea. China noted that the stations generally complied with the Environment Protocol, and highlighted the inspected stations' appropriate environmental management processes, including the training on the Environment Protocol given to new arrivals. China also noted its specific recommendations relevant to environmental management and good practice, and warmly thanked all Parties for their cooperation and hospitality during the inspections.
- (262) Chile and Uruguay thanked China for the inspections of their stations, and reported on specific actions taken or planned in the future in relation to the recommendations.
- (263) Noting that the South Shetland Islands are used by the air-cruise tourism sector and that some of the stations inspected allow visitors, IAATO thanked China for its inspection report and highlighted that tourist activities were not reported as impacting on station activities or the surrounding environment.

- (264) The Committee congratulated China on the conduct of the inspections and thanked China for the comprehensive inspection reports. The Committee welcomed the general findings that the inspected stations were in compliance with the Environment Protocol.
- (265) Argentina introduced WP 44 *Report of the joint inspection program undertaken by Argentina and Chile under Article VII of the Antarctic Treaty and Article 14 of the Environment Protocol*, and referred to IP 72 *Report of the Joint Inspections' Program undertaken by Argentina and Chile under Article VII of the Antarctic Treaty and Article 14 of the Environment Protocol*, jointly prepared with Chile. It reported on the Antarctic Treaty inspections undertaken between 16 and 18 February 2016, which involved five Antarctic stations and one non-governmental refuge in the South Shetland Islands region. It reported that in general, the level of compliance of the Environment Protocol's requirements of the stations inspected was satisfactory.
- (266) In relation to the methodology of inspection, Argentina noted that, in the majority of cases, the Checklist A annexed to Resolution 3 (2010) had been previously completed by the station staff, and that this increased the speed and efficiency of inspections. While recognising the value of prior inspection reports, Argentina noted some gaps of information in the EIES, and some inconsistencies across different ATS databases, and recommended that Members keep the databases up to date. Argentina also commended COMNAP for its "Antarctic Facilities Catalogue" hoping that when concluded, it can become a useful source of information for future inspections. In addition, Argentina noted that the issues identified in previous inspections had been addressed. However, the inspections had identified opportunities for improvement in waste management and non-native species management in relation to hydroponics. Argentina thanked all those Parties whose stations were inspected for their cooperation.
- (267) Chile highlighted the utility of inspections as a tool for continual improvement, both for the personnel at the stations being inspected and for the observers who carry out the inspections.
- (268) China welcomed the recommendations in the report, noting that it had responded to Argentina and Chile before the inspection report was submitted to the meeting, and also noting the follow-up progress carried out in response to the recommendations.
- (269) The Czech Republic noted that it was aware of problems connected to the ECO Nelson Refuge, and that it took seriously the recommendations

suggested in Argentina and Chile's report. The Czech Republic also highlighted that its Competent Authority had not approved any permits or activity in relation to the ECO Nelson Refuge in the 2015/16 season, and that its National Antarctic Programme had no relationship with the ECO Nelson Refuge.

- (270) The Committee congratulated Argentina and Chile for carrying out the inspections. It welcomed the general findings that the stations operated by National Antarctic Programmes were observed to be in satisfactory compliance with the requirements of the Environment Protocol. The Committee also welcomed the inspections team's findings that there was a growing use of renewable energies, and that all staff had received training in relation to the Environment Protocol.
- (271) Noting Argentina's comments regarding the absence of some information in the EIES, the Committee reiterated its view that all Members should fully comply with their information exchange requirements. COMNAP noted that its Station Infrastructure Project would compile a range of information which may be useful for the purpose of inspections.
- (272) In response to the view expressed by France that the use of the inspection checklist should be optional when conducting inspections, Argentina clarified that it was aware that the checklist was not mandatory, but that it had proven very useful in preparing for and undertaking the inspections.
- (273) ASOC thanked China, and Argentina and Chile, for their inspections, and stated that expanding the range of countries conducting inspections improved the Protocol's implementation. ASOC noted that the findings of these recent inspection included "old" issues where the need for further improvement had already been reported in the past, such as waste management issues, but also advances such as the increased use of renewable energy. ASOC stated that the reported increase in fly-cruise tourism had potential environmental implications regionally.
- (274) The Republic of Korea presented IP 102 *Rethinking Antarctic Treaty inspections; patterns, uses and scopes for improvements*. It highlighted that inspections were organised and conducted by leading Parties that possessed operational capabilities, and more often on stations that were easily accessed. It further noted that the undertaking of inspections and follow-ups do not necessarily follow a well-defined path of steps. It proposed the development of a new, more cooperative inspection model where inspections were conducted in a more collective manner, different Parties were permitted to

contribute in unique ways, and the outcomes of inspections were delivered and acted upon.

- (275) The Committee welcomed the points raised in the paper regarding the value of improving the conduct and efficiency of inspection activities, as well as enhancing participation and international cooperation. It noted the advice from the Netherlands that the ATCM was also planning to establish an ICG to further discuss how inspections could be more effective, and encouraged interested Members to contribute to the discussions through their national processes.

### **Item 13: General Matters**

- (276) Portugal presented IP 7 *POLAR WEEKS. An Education and Outreach activity to promote Antarctic science and the Antarctic Treaty System*, prepared jointly with Brazil, Bulgaria, France, and the United Kingdom. It provided a summary of POLAR WEEKS, an education and outreach activity, and highlighted the value of education and outreach to all participants in the activity. Acknowledging the co-authors of the paper, Portugal also recognised the excellent work of co-partner organisations, the Association of Polar Early Career Scientists (APECS), Polar Educators International, COMNAP and CCAMLR.
- (277) The Committee commended Portugal, Bulgaria, France, Brazil and the United Kingdom for the paper, and noted the benefits of the Polar Weeks initiative for promoting awareness of Antarctic science.
- (278) South Africa presented IP 47 *Upgrade of the SANAE IV Base Systems*, which highlighted its plans to implement a comprehensive upgrade of some of the base systems at SANAE IV station.
- (279) The following paper was also submitted under this agenda item:
- BP 8 *Installation of a new waste water treatment facility at Australia's Davis Station* (Australia).

### **Item 14: Election Officers**

- (280) The Committee elected Ms Patricia Ortúzar from Argentina as Vice-chair for a two-year term and congratulated her on her appointment to the role. Patricia Ortúzar was also appointed convener of the Subsidiary Group on Management Plans (SGMP).



- (281) The Committee warmly thanked Ms Birgit Njåstad from Norway for her tireless efforts, productivity and leadership as CEP Vice-chair and as SGMP convener.
- (282) The Committee elected Mr Ewan McIvor from Australia as Chair for a second two-year term and congratulated him on his reappointment to the role.

### **Item 15: Preparation for the Next Meeting**

- (283) The Committee adopted the Preliminary Agenda for CEP XX (Appendix 3).
- (284) Noting some Members' concerns over the potential duplication of discussions in the ATCM and CEP, the Committee reaffirmed the value of strengthening cooperation with the ATCM and of taking practical steps to give effect to that cooperation.

### **Item 16: Adoption of the Report**

- (285) The CEP Chair emphasised that the process of adopting the report was not an opportunity to reopen discussions already concluded under earlier agenda items.
- (286) Belarus expressed its regret that it had been unable to present IP 3 *Application of air dispersion modelling for impact assessment of construction/operation activities in Antarctica* during the Committee's consideration of Agenda Item 8b, because its sole delegate to the CEP XIX had been participating in concurrent ATCM discussions at that time. The Chair noted that the Committee had considered IP 3 to be taken as read.
- (287) The CEP Chair acknowledged the practical challenges faced by small delegations and encouraged Members and Observers to consult with the Chair to ensure that, at future meetings, a suitable opportunity could be made available to present their papers to the Committee.
- (288) The Committee adopted its Report.

### **Item 17: Closing of the Meeting**

- (289) The Chair closed the Meeting on Friday, 27 May 2016.



## Appendix 1

## CEP Five-Year Work Plan

<b>Issue / Environmental Pressure: Introduction of non-native species</b>	
<b>Priority: 1</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Continue developing practical guidelines &amp; resources for all Antarctic operators.</li> <li>2. Implement related actions identified in the Climate Change Response Work Programme.</li> <li>3. Consider the spatially explicit, activity-differentiated risk assessments to mitigate the risks posed by terrestrial non-native species.</li> <li>4. Develop a surveillance strategy for areas at high risk of non-native species establishment.</li> <li>5. Give additional attention to the risks posed by intra-Antarctic transfer of propagules.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Revised Manual posted on ATS website, with updates by the Secretariat, as necessary, when new material becomes available.</li> <li>• Initiate work to assess risks of relocation of native Antarctic species and existing non-native species between and within Antarctic biogeographic regions and identify relevant management actions.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Discuss the intersessional work concerning the relocation of species between biogeographic regions for inclusion in the Non-native Species Manual.</li> <li>• Welcome contribution of Argentina's national NNS Manual.</li> </ul>
Intersessional period 2017/18	<ul style="list-style-type: none"> <li>• Initiate work to develop a non-native species response strategy, including appropriate responses to diseases of wildlife.</li> <li>• To help the Committee in assessing the effectiveness of the Manual, request a report from COMNAP on the implementation of quarantine and biosecurity measures by its members.</li> </ul>
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Discuss the intersessional work concerning the development of a response strategy for inclusion in the Non-native Species Manual, and the implementation of quarantine and biosecurity measures by COMNAP members. Review IMO report on biofouling guidelines.</li> </ul>
Intersessional period 2018/19	<ul style="list-style-type: none"> <li>• Ask SCAR to compile a list of available biodiversity information sources and databases to help Parties establish which native species are present at Antarctic sites and thereby assist with identifying the scale and scope of current and future introductions.</li> <li>• Develop generally applicable monitoring guidelines. More detailed or site-specific monitoring may be required for particular locations.</li> <li>• Request a report from Parties and Observers on the application of biosecurity guidelines by their members.</li> </ul>
CEP XXII 2019	<ul style="list-style-type: none"> <li>• Discuss the intersessional work concerning the development of monitoring guidelines for inclusion in the NNS Manual. Consider the reports from Parties and Observers on the application of biosecurity guidelines by their members.</li> </ul>
Intersessional period 2019/20	<ul style="list-style-type: none"> <li>• Initiate work to assess the risk of marine non-native species introductions.</li> </ul>
CEP XXIII 2020	<ul style="list-style-type: none"> <li>• Discuss the intersessional work concerning the risks of marine non-native species.</li> </ul>

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Intersessional period 2020/2021	<ul style="list-style-type: none"> <li>• Develop specific guidelines to reduce non-native species release with wastewater discharge.</li> <li>• Review the progress and contents of the CEP Non-native Species Manual.</li> </ul>
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Tourism and NGO activities</b>	
<b>Priority: 1</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Provide advice to ATCM as requested.</li> <li>2. Advance recommendations from ship-borne tourism ATME.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Further develop methodology for site sensitivity assessment (recommendation 3 of the tourism study).</li> </ul>
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Climate Change Implications for the Environment</b>	
<b>Priority: 1</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Consider implications of climate change for management of Antarctic environment.</li> <li>2. Advance recommendations from climate change ATME.</li> <li>3. Implement the Climate Change response work programme.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• SCAR and WMO to map research activities against CCRWP.</li> <li>• Chair to consult with ICED and SOOS on contributions to CCRWP.</li> <li>• Actions associated with recommendations arising from joint CEP/ SC-CAMLR workshop, as appropriate.</li> <li>• Implement CCRWP in consultation with experts.</li> <li>• Intersessional discussion on mechanism for managing CCRWP.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Standing agenda item.</li> <li>• SCAR provides update to ACCE report, with input as appropriate from WMO and ICED, SOOS.</li> <li>• Consider advice from SCAR and WMO on how research priorities and programs map to CCRWP.</li> <li>• Establish a mechanism for managing CCRWP.</li> </ul>
Intersessional period 2017/18	<ul style="list-style-type: none"> <li>• Implement CCRWP in consultation with experts.</li> </ul>
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Standing agenda item.</li> <li>• SCAR provides update to ACCE report, with input as appropriate from WMO and ICED, SOOS.</li> </ul>
Intersessional period 2018/19	<ul style="list-style-type: none"> <li>• Implement CCRWP in consultation with experts.</li> </ul>

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CEP XXII 2019	<ul style="list-style-type: none"> <li>• Standing agenda item.</li> <li>• SCAR provides update to ACCE report, with input as appropriate from WMO and ICED, SOOS.</li> </ul>
Intersessional period 2019/20	<ul style="list-style-type: none"> <li>• Implement CCRWP in consultation with experts.</li> </ul>
CEP XXIII 2020	<ul style="list-style-type: none"> <li>• Standing agenda item.</li> <li>• SCAR provides update to ACCE report, with input as appropriate from WMO and ICED, SOOS.</li> </ul>
Intersessional period 2020/2021	<ul style="list-style-type: none"> <li>• Implement CCRWP in consultation with experts.</li> </ul>
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Processing new and revised protected / managed area management plans</b>	
<b>Priority: 1</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Refine the process for reviewing new and revised management plans.</li> <li>2. Update existing guidelines.</li> <li>3. Advance recommendations from climate change ATME.</li> <li>4. Develop guidelines to ASMAs preparation.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• SGMP conducts work as per agreed work plan.</li> <li>• Continue the work on developing guidelines to ASMAs preparation.</li> <li>• Norway and interested Members prepare paper on guidance for delisting ASPAs.</li> <li>• Norway and UK, and interested Members, to develop templates for prior assessment tools for proposed ASPAs or ASMAs.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Consider paper by Norway and interested Members.</li> <li>• Consider paper by Norway, UK and interested Members.</li> <li>• Consider SGMP report.</li> </ul>
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Operation of the CEP and Strategic Planning</b>	
<b>Priority: 1</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Keep the 5 year plan up to date based on changing circumstances and ATCM requirements.</li> <li>2. Identify opportunities for improving the effectiveness of the CEP.</li> <li>3. Consider long-term objectives for Antarctica (50-100 years time).</li> <li>4. Consider opportunities for enhancing the working relationship between the CEP and the ATCM.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	

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CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Repair or Remediation of Environmental Damage</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Respond to further request from the ATCM related to repair and remediation, as appropriate.</li> <li>2. Monitor progress on the establishment of Antarctic-wide inventory of sites of past activity.</li> <li>3. Consider guidelines for repair and remediation.</li> <li>4. Members develop practical guidelines and supporting resources for inclusion in the Clean-up Manual.</li> <li>5. Continue developing bioremediation and repair practices for inclusion in the Clean-up Manual.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	• Consider review of the Clean-up Manual.
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Human footprint / wilderness management</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Develop methods for improved protection of wilderness under Annexes I and V.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Monitoring and state of the environment reporting</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Identify key environmental indicators and tools.</li> <li>2. Establish a process for reporting to the ATCM.</li> <li>3. SCAR to support information to COMNAP and CEP.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Actions associated with recommendations arising from joint CEP/SC-CAMLR workshop, as appropriate.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Report from SCAR on the scientific understanding use of unmanned aerial vehicles (UAVs) on wildlife.</li> <li>• Establish an ICG to develop UAV guidance.</li> <li>• Actions associated with recommendations arising from joint CEP/SC-CAMLR workshop, as appropriate.</li> </ul>
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/21	
CEP XXIV 2021	<ul style="list-style-type: none"> <li>• Consider monitoring report by UK on ASPA 107.</li> </ul>

<b>Issue / Environmental Pressure: Marine spatial protection and management</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Cooperation between the CEP and SC-CAMLR on common interest issues.</li> <li>2. Cooperate with CCAMLR on Southern Ocean bioregionalisation and other common interests and agreed principles.</li> <li>3. Identify and apply processes for spatial marine protection.</li> <li>4. Advance recommendations from climate change ATME.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

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<b>Issue / Environmental Pressure: Site specific guidelines for tourist-visited sites</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Periodically review the list of sites subject to site guidelines and consider whether development of guidelines should be needed for additional sites.</li> <li>2. Provide advice to ATCM as required.</li> <li>3. Review the format of the site guidelines.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	<ul style="list-style-type: none"> <li>• Standing agenda item; Parties to report on their reviews of site guidelines.</li> </ul>
Intersessional period 2017/18	
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Standing agenda item; Parties to report on their reviews of site guidelines.</li> </ul>
Intersessional period 2018/19	
CEP XXII 2019	<ul style="list-style-type: none"> <li>• Standing agenda item; Parties to report on their reviews of site guidelines.</li> </ul>
Intersessional period 2019/20	
CEP XXIII 2020	<ul style="list-style-type: none"> <li>• Standing agenda item; Parties to report on their reviews of site guidelines.</li> </ul>
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Overview of the protected areas system</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Apply the Environmental Domains Analysis (EDA) and Antarctic Conservation Biogeographic Regions (ACBR) to enhance the protected areas system.</li> <li>2. Advance recommendations from climate change ATME.</li> <li>3. Maintain and develop Protected Area database.</li> <li>4. Assess the extent to which Antarctic IBAs are or should be represented within the series of ASPAs.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Implement related actions from the CCRWP.</li> <li>• Norway and UK, and interested Members, to develop templates for prior assessment tools for proposed ASPAs or ASMAs.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Consider paper by Norway, UK and interested Members.</li> <li>• Parties to provide update reports on research and management efforts to apply biogeographic tools.</li> <li>• Parties to provide updates on research undertaken or planned to identify climate change vulnerable biogeographic regions.</li> </ul>
Intersessional period 2017/18	
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Plan for a joint SCAR/CEP workshop on Antarctic biogeography, including to: identify practical management applications of biogeographic tools and future research needs.</li> <li>• Provide a status report to the ATCM on the status of the Antarctic Protected Areas network.</li> </ul>
Intersessional period 2018/19	<ul style="list-style-type: none"> <li>• Joint SCAR/CEP workshop on Antarctic biogeography.</li> </ul>
CEP XXII 2019	<ul style="list-style-type: none"> <li>• Consider report from joint SCAR/CEP workshop on Antarctic biogeography.</li> </ul>
Intersessional period 2019/20	
CEP XXIII 2020	



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Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Outreach and education</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Review current examples and identify opportunities for greater education and outreach.</li> <li>2. Encourage Members to exchange information regarding their experiences in this area.</li> <li>3. Establish a strategy and guidelines for exchanging information between Members on Education and Outreach for long term perspective.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Disseminate the 25<sup>th</sup> anniversary publication agreed at CEP XIX/ATCM XXXIX.</li> <li>• Release publication at events on 4 October 2016.</li> </ul>
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Implementing and Improving the EIA provisions of Annex I</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Refine the process for considering CEEs and advising the ATCM accordingly.</li> <li>2. Develop guidelines for assessing cumulative impacts.</li> <li>3. Review EIA guidelines and consider wider policy and other issues.</li> <li>4. Consider application of strategic environmental assessment in Antarctica.</li> <li>5. Advance recommendations from climate change ATME.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Establish ICG to review draft CEEs as required.</li> <li>• UK and interested Members develop paper on taking forward broader policy and other EIA related issues.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Consideration of ICG reports on draft CEE, as required.</li> <li>• Dedicated discussion on policy and other related matters on EIA.</li> </ul>
Intersessional period 2017/18	<ul style="list-style-type: none"> <li>• Establish ICG to review draft CEEs as required.</li> </ul>
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Consideration of ICG reports on draft CEE, as required.</li> </ul>
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

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<b>Issue / Environmental Pressure: Designation and management of Historic Sites and Monuments</b>	
<b>Priority: 2</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Maintain the list and consider new proposals as they arise.</li> <li>2. Consider strategic issues as necessary, including issues relating to designation of HSM versus clean-up provisions of the Protocol.</li> <li>3. Review the presentation of the HSM list with the aim to improve information availability.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Secretariat update list of HSMs.</li> <li>• ICG on development of guidance relating to designation of HSM.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Standing item.</li> <li>• Consider ICG report .</li> </ul>
Intersessional period 2017/18	<ul style="list-style-type: none"> <li>• ICG on development of guidance relating to designation of HSM.</li> </ul>
CEP XXI 2018	<ul style="list-style-type: none"> <li>• Consider ICG report.</li> </ul>
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Biodiversity knowledge</b>	
<b>Priority: 3</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Maintain awareness of threats to existing biodiversity.</li> <li>2. Advance recommendations from climate change ATME.</li> <li>3. CEP to consider further scientific advice on wildlife disturbance.</li> </ol>	
Intersessional period 2016/17	<ul style="list-style-type: none"> <li>• Actions associated with recommendations arising from joint CEP/SC-CAMLR workshop, as appropriate.</li> </ul>
CEP XX 2017	<ul style="list-style-type: none"> <li>• Discussion of SCAR update on underwater noise.</li> </ul>
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

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<b>Issue / Environmental Pressure: Exchange of Information</b>	
<b>Priority: 3</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Assign to the Secretariat.</li> <li>2. Monitor and facilitate easy use of the EIES.</li> <li>3. Review environmental reporting requirements.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	• Secretariat Report.
Intersessional period 2017/18	
CEP XXI 2018	
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

<b>Issue / Environmental Pressure: Protection of outstanding geological values</b>	
<b>Priority: 3</b>	
<b>Actions:</b>	
<ol style="list-style-type: none"> <li>1. Consider further mechanisms for protection of outstanding geological values.</li> </ol>	
Intersessional period 2016/17	
CEP XX 2017	
Intersessional period 2017/18	
CEP XXI 2018	• Consider advice from SCAR.
Intersessional period 2018/19	
CEP XXII 2019	
Intersessional period 2019/20	
CEP XXIII 2020	
Intersessional period 2020/2021	
CEP XXIV 2021	

## **Appendix 2**

### **Climate Change Response Work Programme**

**CCRWP Vision:** Taking into account the conclusions and recommendations from the ATME on Climate Change in 2010, the CCRWP provides a mechanism for identifying and revising goals and specific actions by the CEP to support efforts within the Antarctic Treaty System to prepare for, and build resilience to, the environmental impacts of a changing climate and the associated implications for the governance and management of Antarctica.



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Climate related Issue	Gap/needs	Response area	Action/Task	Priority	Who	IP	CEP 2017	IP	CEP 2018	IP	CEP 2019	IP	CEP 2020	IP	CEP 2021			
2) Change to the biotic and abiotic environment due to climate change	<ul style="list-style-type: none"> <li>Understanding and responding to freshwater biota and the changes of these changes</li> <li>Understanding as terrestrial environment will change and the impacts of these changes</li> </ul>	Research	a. Support and undertake understanding of current and future change and to inform response	1.9	NAPs, SCAR	SCAR to assimilate with initiatives relevant to terrestrial and freshwater environmental change.	Ongoing. Update reports to be provided, including through the Portal.		Ongoing. Update reports to be provided, including through the Portal.		Ongoing. Update reports to be provided, including through the Portal.		Ongoing. Update reports to be provided, including through the Portal.					
			b. Support and undertake long term monitoring or change, and cooperative efforts (e.g. ANTOS).	1.8	NAPs, SCAR	SCAR to develop advisory to CEP on findings/outcomes of CEP's management interest.	Consider questions relating to access of data for the CEP		Consider obvious gaps in monitoring network and data collection where such gaps exist									
			c. Continue to develop monitoring tools (EDA and ACRI) to provide sound basis for informing Antarctic area protection and continental scales in light of climate change. Support research and need to establish reference areas for future research and design areas resilient to climate change	2.1	Initiated by Parties and CEP		Parties provide update reports on research and management efforts to apply biogeographic tools.	Plan for a joint SCAR/CEP workshop on Antarctic biogeography to identify practical management applications and future research needs	Joint SCAR/CEP workshop on Antarctic biogeography		Consider report from SCAR/CEP workshop on Antarctic biogeography							
			d. Identify and prioritize Antarctic regions most vulnerable to climate change	1.6	Initiated by Parties and CEP		Parties to provide/undertaken or planned to identify climate change impacts on biogeographic regions.											
			e. Review self-reliance where necessary existing management tools to consider if they are resilient to future climate change (e.g. adaptation measures to areas at risk from climate change)	1.9	CEP											Parties to enrich information on experiences and lessons learned on climate change considerations in the EIA process.		
			f. Holistic review of existing Protected Areas network and consider if such areas to ensure they take into account climate change and consider how we might respond.	1.8	CEP	SGMP ASMA work on developing guidelines/criteria for delimiting of Protected Areas in climate change	SGMP work on ASMA guidelines (cf. SGMP and incorporates appropriate the implication of climate change	SGMP ASMA work on developing guidelines/criteria for delimiting of Protected Areas in climate change	SGMP ASMA work on developing guidelines/criteria for delimiting of Protected Areas in climate change		Plan for intersectoral workshop on a review of the Protected Areas system	WS**	Review the outcomes to be provided at the Protected Areas Workshop.					
			g. Initiate action with the aim to protect representative areas and areas likely to provide refuges to species and ecosystems at risk.	2.3	CEP							Provide a status report to the ATCM on the status of the Protected Areas network						

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Climate related issue	Gap/needs	Response area	Action/task	Priority	Who	IP	CEP 2017	IP	CEP 2018	IP	CEP 2019	IP	CEP 2020	IP	CEP 2021		
3) Change to mitigate the near-shore ocean environment (including OAI)**	<ul style="list-style-type: none"> <li>Understanding and have the ability to monitor and assess marine changes and impacts of the change broader understanding of what monitoring driven changes environment</li> </ul>	Research	a. Encourage research by national programmes and SCAR on climate impacts on marine biota	2.0	NAPs, SCAR	SCAR to assimilate current research programmes to ensure environmental change.	Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.				
			b. Support and undertake monitoring of change (eg. SOCS, ANTOS) and seek regular updates from such programmes	2.0	NAPs, SCAR	SCAR to assimilate existing research programmes (such as SOCS) and ensure they can contribute to CEP's management interests.			Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		
			c. Review and update where necessary existing management tools to consider if they afford the best practical response to impact species or geographic areas at risk from climate change in SO	2.0	CEP												
4) Ecosystem change due to ocean acidification	<ul style="list-style-type: none"> <li>Understanding of the OA to marine biota and ecosystems</li> </ul>	Management	d. Continue to work with COA-IPs to develop tools for defining reference areas for future research	2.5	CEP/SCAR/SC-CAMLR												
			e. Maintain regular dialogue (or sharing of information) with SC-CAMLR on Climate Change in particular on actions being taken	1.5	CEP/CCAMLR												
			a. As required, encourage further assessment of OA informed by the SCAR report	1.9	NAPs, SCAR	As required, encourage further assessment of OA informed by the SCAR report			Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		Ongoing. Update reports to be provided, ind. through the Portal.		
4) Ecosystem change due to ocean acidification	<ul style="list-style-type: none"> <li>Understanding of the OA to marine biota and ecosystems</li> </ul>	Management	b. Consider for inclusion SCAR report on OA and act accordingly (understanding some actions may be best advanced by ATCo)	1.6	CEP/CCAMLR****	SCAR report on OA 2016.											
			c. Review and revise where necessary existing management tools to consider if they afford the best practical adaptation measure areas at risk from ocean acidification	2.4	CEP/CCAMLR**												





Climate related Issue	Gap/needs	Response area	Action/Task	Priority	Who	IP	CEP 2017	IP	CEP 2018	IP	CEP 2019	IP	CEP 2020	IP	CEP 2021
7) Marine, terrestrial habitats at risk due to climate change	<ul style="list-style-type: none"> <li>Understand habitat vulnerability and distribution in response to effects of climate change on sea ice extent and duration, snow cover, ground moisture, and consequences and consequences on ecosystems</li> <li>Improved understanding of the distribution of human presence in Antarctica as a result of changes in sea ice extent</li> <li>Changes in ice shelves; expansion of ice free area).</li> </ul>	<p>Research</p> <p>Management</p>	<p>a. Encourage research by NMFS, SOAR and SC-CCAMLR</p> <p>b. Review and revise where necessary existing management tools to consider adaptation measure to habitats at risk of climate change.</p>	<p>2.4</p> <p>2.3</p>	<p>NMFS, SOAR, SC-CCAMLR</p> <p>CEP CCAMLR coord.</p>	<p>Update reports to be provided, incl. through the Portal</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Update reports to be provided, incl. through the Portal</p>	<p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p>	<p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p>	<p>CEP 2017</p> <p>CEP 2018</p> <p>CEP 2019</p> <p>CEP 2020</p> <p>CEP 2021</p>	<p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p>	<p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p> <p>Ongoing</p> <p>Update reports to be provided, incl. through the Portal</p>	<p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p>	<p>CEP 2017</p> <p>CEP 2018</p> <p>CEP 2019</p> <p>CEP 2020</p> <p>CEP 2021</p>	<p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p> <p>IP</p>	<p>CEP 2017</p> <p>CEP 2018</p> <p>CEP 2019</p> <p>CEP 2020</p> <p>CEP 2021</p>

\* ISW = Interseasonal work (could be ICG, workshop, interested members, etc).

\*\* Workshop.

\*\*\* Noting the importance of CCAMLR consideration of climate change issues in the Southern Ocean.

\*\*\*\* Including in context of proposed joint workshop (pt. 3e).

\*\*\*\*\* Note that the IUCN criteria cover many aspects besides climate change, and does not necessarily identify the effects solely due to climate change. The benefit of using IUCN criteria in our response to climate change will be assessed prior to its use.

## **Preliminary Agenda for CEP XX**

1. Opening of the Meeting
2. Adoption of the Agenda
3. Strategic Discussions on the Future Work of the CEP
4. Operation of the CEP
5. Cooperation with other Organisations
6. Repair and Remediation of Environment Damage
7. Climate Change Implications for the Environment
  - a. Strategic approach
  - b. Implementation and Review of the Climate Change Response Work Programme
8. Environmental Impact Assessment (EIA)
  - a. Draft Comprehensive Environmental Evaluations
  - b. Other EIA Matters
9. Area Protection and Management Plans
  - a. Management Plans
  - b. Historic Sites and Monuments
  - c. Site Guidelines
  - d. Marine Spatial Protection and Management
  - e. Other Annex V Matters
10. Conservation of Antarctic Flora and Fauna
  - a. Quarantine and Non-native Species
  - b. Specially Protected Species
  - c. Other Annex II Matters
11. Environmental Monitoring and Reporting
12. Inspection Reports
13. General Matters
14. Election of Officers
15. Preparation for Next Meeting
16. Adoption of the Report
17. Closing of the Meeting