Antarctic Tourism and Protected Areas
Antarctic tourism and protected areas

Information paper submitted by ASOC

Abstract

There is a clear connection between area protection and tourism regulation in Antarctica, even though this connection has not been used to its full extent to regulate tourism. This document discusses the interface between protected areas, in a broad sense, and the regulation and management of tourism. It also discusses how area protection may be used with respect to potential vectors of tourism expansion, particularly the use of airstrips and dedicated land-based tourism facilities. Overall, tourism dynamics and current tourism developments suggest that tourism regulation should be examined from a regional focus. This would require "zooming out" spatial management instruments rather than solely "zooming in" into specific sites managed by guidelines. Recognising the dynamic of Antarctic tourism, ASOC recommend that Parties consider using strategically ASPAs and ASMAs to regulate current and potential future tourism, and makes specific recommendations detailed in the document.

Introduction

The development of a protected area regime is one of the obligations of the Protocol and its Annexes that has received more attention by the ATCM and CEP, though further work is required to establish a representative network of protected areas in the Antarctic Treaty area. The ATCM and CEP have also given considerable attention to Antarctic tourism; although some regulation and management instruments have been adopted these have not resulted yet in the establishment of a comprehensive regulatory regime for this activity. There is a clear connection between area protection and tourism regulation, even though this connection has not been used to its full extent to regulate tourism.

In this document we discuss the interface between protected areas, in a broad sense, and the regulation and management of tourism. We also discuss how area protection may be used with respect to potential vectors of tourism expansion, particularly the use of airstrips and dedicated land-based tourism facilities.

Spatial protection mechanisms in the Antarctic Treaty Area

The basic function of spatial protection in natural areas is to maintain the values of those areas by regulating components of human presence that may affect negatively those values. Regulations may include management conditions, restrictions or prohibitions of access, activities, and individual behaviour. A complementary approach consists of directing activities towards particular areas, and consequently away from other areas where protection is enhanced. To be meaningful and effective, regulations in protected areas need to be stronger than regulations outside those areas.

In practice, the management plans of Antarctic protected areas categorise types of activities and forms of individual behaviour, and prohibits, restricts or manages those differentially. Some activities and forms of behaviour are allowed in certain areas while others are not, and access to or movement within an area may be

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1 Lead author: R. M. Roura with reviews by Jessica O'Reilly and Lyn Goldsworthy.
2 In 1972 the Consultative Parties recommended that their governments carry out consultations on the possible designation of “an adequate number of areas of special tourist interest where tourists would be encouraged to visit” (Recommendation VII-4). In 1975 the ATCM agreed Recommendation VIII-9 that requested organizers of tourist groups, inter alia, “...to land only within the Areas of Special Tourist Interest listed or defined in Annex B to this Recommendation.” However, Annex B was blank and due for discussion at the following ATCM, and eventually no ASTI was ever designated. Recommendation VIII-9 is no longer current. In 2006 it was suggested that in the process of specially managed areas could be applied to the specific creation of “areas of tourist interest” (France 2006), although this proposal was not adopted. Among other comments, some delegations felt that the development of specialist tourist sites could be regarded as exploitation rather than preservation (Final Report XXIX ATCM, paragraphs 173-179).
3 Note exemptions including under the previsions Article 11, Annex V of the Protocol regarding cases of emergency.
regulated too. When zoning regulations are in use, the same basic concept applies to specific zones inside protected areas. There are very few protected areas in Antarctica where no visitors of any kind are allowed, and relatively few where no tourism is allowed.

The set of protected area instruments currently used in the Antarctic Treaty area include Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Area (ASMAs), some of which derive from early area protection instruments; Seal Reserves under the Convention for the Conservation of Antarctic Seals (CCAS), and Marine Protected Areas under the Convention for the Conservation of Antarctic Marine Living Resources (CAMLR Convention). Other area-based instruments or tools include spatial restrictions concerning the disposal of sewage in coastal waters (Netherlands 2014), zoning, and site guidelines. Some areas protection instruments have never been used or are no longer used, such as Areas of Special Tourism Interest (ASTIs) and sites protected under the CCAMLR Ecosystem Monitoring Program (CEMP). These various instruments influence tourism in different degrees (Table 1). Plainly, ASPAs and ASMAs are the area-based tools more relevant to tourism regulation and management, complemented by zoning and site guidelines.

According to the Protocol’s Annex V, any area, including any marine area, may be designated as an ASPA or an ASMA, which are the building blocks of the Protocol’s protected area regime. Currently, this regime consists of 72 ASPAs and seven ASMAs that have been designated by the ATCM. Activities in ASPAs and ASMAs may be prohibited, restricted or managed, in accordance with management plans adopted under the provisions of Annex V of the Protocol. Reviews of Management Plans shall be initiated at least every five years, and the Plan shall be updated as necessary. Management Plans may be amended or revoked in accordance with the designation procedures of Annex V, Art. 6(1). Any amendments need to be approved by the Antarctic Treaty Consultative Meeting (ATCM), which makes decisions by consensus. The designation of ASMAs shall be for an indefinite period unless the Management Plan provides otherwise. Currently all ASMAs and the vast majority of ASPAs have been designated for an indefinite period.

ASPA access requires a permit. These are usually granted only to scientists and science support personnel, environmental managers, and (in some instances) educators. However, most ASPAs protecting historic sites allow tourism, and in those instances tourists are the dominant category of visitor (Hughes et al 2013).

ASMAs have been recognised as "especially relevant and likely one of the best tools in the management of tourism" (Valencia, 2000). ASMAs place some conditions on the conduct of tourism activities, such as for instance the location of anchoring and landing sites. The strongest area protection in ASMAs usually derives from the ASPAs located within the ASMA, while tourism is generally managed with site-specific guidelines.

As noted in the CEP tourism study (New Zealand, 2012a:5):

> There are a number of management options available to the ATCM including hard (ASPA and ASMA designations) as well as soft measures such as site-specific and generic guidance material. The utility of these tools and other management options (e.g. seasonal and site-specific management) requires further consideration. Evidence for the application of one or a combination of such approaches will need to take account of limited data, monitoring and research.

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4 In 2004 CCAMLR adopted CM 91-01 Procedure for according protection to CCAMLR Ecosystem Monitoring Program (CEMP) sites. In practice, these would result in the application of area protection mechanisms detailed in a management plan. Protection measures could include for instance the prohibition of certain activities or prohibitions of access to and movement within a site. However, "There are currently no sites afforded protection under Conservation Measure 91-01, however, 7 of the 13 currently active CEMP monitoring sites south of 60°S are within ASPAs or ASMAs and are therefore given additional protection through that mechanism.” (https://www.ccamlr.org/en/science/ccamlr-ecosystem-monitoring-program-cemp, accessed April 2015).

5 Protocol Annex V Art. 2.

6 Protocol Annex V Art. 2.

7 Protocol Annex V Art. 6 (3).

8 Protocol Annex V Art. 6 (3).

9 Protocol Annex V Art. 3 (4).

10 These authors note that "for the three-year period examined, on average 736 visitors went to each ASPA protecting historical values or commemorative areas (ASPAs 155, 156, 157, 158, 159 and 162), with 96.3% visiting for education or tourism reasons, 3.0% for science and 0.6% for environmental management reasons. No visits were made for technical or logistical reasons." (p. 127).
At present, designated ASMAs vary substantially in terms of, *inter alia*, surface area, environmental setting, values protected, and the type and level of activities conducted within. All of the current ASMAs have significant natural values, but tourism levels in each of the ASMAs ranges from limited to significant. This diversity highlights the flexibility of ASMAs as an instrument for area protection, and the potential to expand its use beyond current applications. New applications may include, *inter alia*, the use of ASMA to:

- Cover larger areas than those used so far, including for the management of tourism at a sub-regional level;
- Anticipate and prevent cumulative impacts and the degradation or loss of quality of the environment (and hence its scientific quality) from the effects of past, present, and future activities;
- Anticipate and prevent conflicts of use between different activities types; and
- In combination with other spatial management instruments, protect sensitive locations within the ASMA (as well as to manage the range of activities conducted in the ASMA).

Despite this potential, at present, the most favoured way to manage tourism (and as a *de facto* proxy for regulation) is through the use of site guidelines, which have an emphasis on the behaviour that is expected at particular locations according to site-specific factors. Site guidelines combine conditions and restrictions on behaviour with elements of area protection. These guidelines have a useful role; however, unlike ASPAs and ASMAs, they are not legally binding, and have usually been established only after a site has become a regular tourism destination.

**Anticipating tourism developments and area protection needs**

Antarctic tourism is inherently dynamic (e.g. Roura 2010, 2012; Lamers 2012), and characterized by several interrelated factors, including:

- **Growth in numbers**: More companies, more ships, more tourists (peak to date in the mid-2000s).
- **Geographic expansion and concentration**: New locations, either along the coast (now in a diminishing number, as in some areas already most feasible sites have been visited) or inland (connected to land based tourism). An expansion trend is combined with a concentration at certain locations that have been consolidated as tourism destinations.
- **Diversification of activities**: Tourism is now less about seeing unique Antarctic features (although these remain an important element of the tourism experience) and more about conducting a growing range of activities in Antarctica.
- **Diversification of means of access**: Shipborne tourism is the dominant means to access the Antarctic, but there are a range of shipping options as well as fly-sail and airborne tourism.
- **Expanding customer base**: New products catering to new market segments. These include backpackers looking for last minute deals; time-poor millionaires embarking in exclusive brief expeditions, which come at a cost; and to people interested in particular activities and experiences (e.g. marathons, diving).

Tourism dynamics have obvious spatial implications - more people access more places in an increasing range of modalities to engage in a growing number of activities. Tourism developments have an effect on area protection needs, particularly in coastal areas where tourism activity focuses, and also in some inland areas where and airstrips and base camps are used as staging points to access other locations. At present, most ASPAs are located nearby research stations, reflecting that ASPAs are generally created to protect areas from some threat of human interference or impact. The rationale appears to be that in the absence of field research or tourism visits to a remote location there may be little reason for its designation as a protected area. However, this approach to protected area development does not take into consideration future science or tourism activities which are occurring increasingly occurring at more remote locations (Convey et al., 2012; Hughes et al. 2013).

One of the less understood aspects of tourism is its interaction with stations run by National Antarctic Programs. Currently, to our knowledge, there is (or there has been) some level of support to tourism from the airstrips at Teniente Marsh in Fildes Peninsula (such as fly-sail tourism) and at Novolazarevskaya Station. A tourism facility is located near the latter (Russian Federation 2012).

Several new National Antarctic Program facilities have been developed in recent years, including research stations and airstrips. These facilities are used exclusively to support science, however not all of the EIAs for
those facilities explicitly rule out their future use for tourism. In the case of new airstrips, for instance, some EIAs note explicitly that the facilities will not be made available for tourism, while other EIAs recognize that by opening a runway in a previously fairly inaccessible area there would be a potential of opening the area to non-governmental visitors and to a higher level of private expeditions, and considerations about these potential developments would have to be done separately from the EIAs. It is not suggested here that any of these current or recently established facilities would actually be used to support tourism, but rather that the potential exists.

Another factor is the relative expansion of land-based tourism camps, which are used as staging points to access other locations. Aside the Novolazarevskaya Base camp mentioned above there are at least two other facilities, one in the Union Glacier and the other at "Whichaway Camp". Activities at the latter, which is situated in Queen Maud Land, a 5 hour flight from Cape Town (its precise location is not shown in the company's website) have been advertised as follows:

- Have exclusive access to a 6,000 strong Emperor Penguin colony with their newly-hatched chicks.
- Fly into unexplored mountains and with our World Record breaking polar explorers guiding you every step of the way, summit a mountain no one has ever climbed before!
- Become the first tourists to ever fly out to the ice barrier on the edge of Dronning Maud Land and witness thousands of iridescent icebergs.

These activities have obvious implications regarding direct, indirect and cumulative environmental impacts, and impacts on wilderness and wilderness values. It would be important that Parties permitting these activities assess the need for the establishment of ASPAs in the areas where the activities take place. Parties that permit or process EIAs for these activities would be in the best position to determine what locations may require such assessment.

The CEP Tourism Study (attachment to New Zealand 201b:75) noted that:

*It is not inconceivable that protected area and managed area designations could be used to regulate visitation to certain areas of Antarctica. The “hotspots” of activity identified in this ...may also provide opportunities for additional tourism management options on a more regional (rather than site-specific) scale, perhaps using ASMA designations, and the development of regional environmental impact assessments as suggested by Kriwoken and Rootes (2000)(see Recommendation 5 above).*

Overall, tourism dynamics and current tourism developments suggest that tourism regulation should be examined from a regional focus. This would require "zooming out" spatial management instruments rather than solely "zooming in" into specific sites managed by guidelines.

**Concluding remarks**

ASOC has made a series of recommendations regarding the regulation and management of Antarctic tourism, based on strategic analysis (ASOC 2010, 2011, 2012). ASOC has recommended, *inter alia*, that Parties should use specially protected and managed areas (ASPs and ASMAs) proactively as strategic tourism management tools. These uses would be particularly relevant to anticipate tourism developments. Through the use of protected areas, tourism could be concentrated, diverted or dispersed as required, whenever possible in anticipation of tourism developments. The idea is not to exclude tourism arbitrarily from particular sites, but to protect fundamental values that may not be compatible with regular tourism.

In particular, ASPAs can be designated to protect sites that meet the criteria of Annex V, Art. 3(2) of the Protocol, many of which require no or minimum human interference, before they become established tourism destinations. ASMAs can be designated to assist in the planning and coordination of contemporary or future activities including tourism, prevent conflicts, and minimise cumulative impacts. In this context it would be important that the intersection of tourism activities with research stations and associated

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12 Recommendation 5 of the CEP Tourism Study states that "Consideration should be given to the regular review of trends in tourist activity at selected tourist sites, particularly those with high levels of visitation or those considered to be particularly sensitive to impact." (Attachment to New Zealand 2012:7).
13 For further discussion of ASPAs, see ASOC IP 112, Expanding Antarctica’s Protected Areas System.
infrastructure (like airstrips) is taken into consideration. Potential tourism uses of current or planned facilities should be a factor for consideration in the designation of future protected areas. Whilst it would seem very unlikely that current or new airstrips will be used to support tourism in coming years, this might change in the longer term.

Recognising the dynamic of Antarctic tourism, ASOC recommend that Parties consider using strategically ASPAs and ASMAs to regulate current and potential future tourism, and in particular:

- Examine from a regional perspective the intersection of current tourism activities with protected and managed areas.
- Examine area protection and management needs in the proximity of land based tourism facilities or in areas that may in the future be used for tourism (such as near airstrips).
- Provide clear statements about tourism policies at their facilities, including bases and airstrips in currently little-visited areas.
- Generally, consider the spatial expansion of tourism in the process of developing a representative network of protected areas.

References

ASOC (2012): Key issues for a strategic approach to review tourism policies, ATCM XXXV, IP055.
New Zealand (2012a): Environmental aspects and impacts of tourism and non-governmental activities in Antarctica. XXXV ATCM WP022
New Zealand (2012b): Environmental aspects and impacts of tourism and non-governmental activities in Antarctica. XXXV ATCM IP033 and attachments.
Russian Federation (2012): Activity of the international air program DROMLAN and its interaction with non-governmental activity in the Antarctic ATCM XXXX - CEP XV/IP072
## Table 1 - Area-based instruments in the Antarctic Treaty System and their influence on tourism

<table>
<thead>
<tr>
<th>Area-based instrument</th>
<th>Established by</th>
<th>What they do</th>
<th>Influences tourism?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Areas of Special Tourist Interest (ASTIs)</td>
<td>1975 ATCM Recommendation VIII-9</td>
<td>Direct tourism landing to particular sites to the exclusion of other sites.</td>
<td>Not in practise. No ASTIs were ever designated and the Recommendation is no longer current.</td>
</tr>
<tr>
<td>CCAMLR MPAs</td>
<td>1980 Convention on the Conservation of Antarctic Marine Living Resources</td>
<td>Scientific and commercial fishing within MPAs is regulated. This may include no take areas where no fishing is allowed. Legally binding.</td>
<td>Unlikely. None of the current CCAMLR MPA proposals restrict the passage of ships in any way. Shipping restrictions on future proposals is unlikely because of UNCLOS regulations.</td>
</tr>
<tr>
<td>12nm sewage disposal restriction</td>
<td>1991 Protocol of Environmental Protection to the Antarctic Treaty - Annex IV, Art. 6 (1)(a)</td>
<td>Sewage disposal is not allowed. Legally binding.</td>
<td>Yes. This is a general restriction that applies to all vessels, except those covered by the previsions of Annex IV (7) and (11).</td>
</tr>
<tr>
<td>Antarctic Specially Protected Areas (ASPAs)</td>
<td>1991 Protocol of Environmental Protection to the Antarctic Treaty - Annex V</td>
<td>Protects a range of values. Legally binding.</td>
<td>Yes, albeit this does not always imply that tourism is not allowed in some ASPAs. Tourist access to ASPAs protecting historic sites is allowed under permit.</td>
</tr>
<tr>
<td>Antarctic Specially Managed Areas (ASMAs)</td>
<td>1991 Protocol of Environmental Protection to the Antarctic Treaty -Annex V</td>
<td>Manages activities within certain areas. Legally binding.</td>
<td>Yes, although this varies among ASMAs.</td>
</tr>
<tr>
<td>Historic Sites and Monuments (HSMs)</td>
<td>1991 Protocol of Environmental Protection to the Antarctic Treaty - Annex V</td>
<td>Manages sites and monuments of recognised historic value</td>
<td>Yes - generic conditions, restrictions and prohibitions apply to tourism.</td>
</tr>
<tr>
<td>CEMP sites</td>
<td>CCAMLR Conservation Measure 91-01</td>
<td>Establishes a procedure for according protection to CCAMLR Ecosystem Monitoring Program (CEMP) sites.</td>
<td>Not at present but theoretically possible. Current CEMP sites are either unprotected or protected through ASPAs and ASMAs. Under Annex V of the Protocol CCAMLR could propose ASPAs or ASMAs to e.g. protect CEMP sites.</td>
</tr>
<tr>
<td>Zoning</td>
<td>Management plans for ASPAs and ASMAs adopted by the ATCM</td>
<td>Zoning is used in ASPAs, ASMAs, and in some site guidelines for, inter alia,</td>
<td>Depends on the case. Different zones have different purposes and some place conditions or restrictions on tourism activity.</td>
</tr>
<tr>
<td>Site guidelines</td>
<td>ATCM Resolutions</td>
<td>Condition or restrict activities and behaviour. May or may not contain boundaries (lines) or zones (areas) where different conditions or restrictions apply. Legally not binding.</td>
<td>Yes. Most site guidelines are established to manage tourism.</td>
</tr>
</tbody>
</table>