IAATO Climate Strategy

Climate Change Committee 2022- 2023

IAATO members recognise the threat of global climate change to our planet including Antarctica. In line with IAATO's mission to advocate and promote the practice of safe and environmentally responsible private-sector travel to the Antarctic, IAATO members should:

1. Understand our impact

2. Reduce our impact

   Step 1: Reduce Emissions

   Step 2: Carbon removal and Carbon offset

3. Spread the word!

1. Understand our impact

As requested by members, IAATO Climate Change Committee (CCC) had a Carbon Footprint (greenhouse gas) Initial Assessment conducted on the 2019/2020 season for vessels, gateway to gateway to calculate our total footprint and a per passenger per day figure (see below). While there were important limitations, including because the calculation relied on certain assumptions about fuel consumption and distance travelled, the assessment provided an approximate baseline of the total carbon emissions of our fleet for one season. It also enabled the Committee to consider how IAATO can more accurately calculate annual greenhouse gas (GHG) emissions for its activities going forward and develop a proposal for consideration by IAATO Operators.

As a result, at IAATO's Annual Meeting in 2022, IAATO Operators agreed to annually submit the following data[1] to IAATO:

- Fuel consumption (type and volume of each fuel) for vessels, aircraft and accessory crafts, gateway to gateway, for the full season;

- Distance travelled (over ground) in nautical miles for the period, gateway-to-gateway, for applicable craft.

This would be a mandatory requirement. Submission will begin with the 2022-2023 season.

What all IAATO members can do to determine their own GHG footprint:

Here are 3 methods:

1. Do a full greenhouse gas (GHG) audit of your Antarctic / global operations with a reputable company, ensure methodologies and tools are aligned to the United Nations Framework Convention on Climate Change (UNFCCC) relevant guidelines on measurement, reporting and verification, and that they are transparent and accessible.

   Resource: Use the *GHG Protocol emissions calculation tool*

   Resource: Guidance to help small and medium sized enterprises (SMEs) reduce emissions are available. For example, the *Carbon Trust: Journey to Net Zero tool*.

2. Do a simple calculation of your greenhouse gas emissions based on the fuel used by your operations*, multiplied by globally recognised conversion factors

   Resource: Page 74 in the IMO document "*Fourth IMO GreenHouse Gas Study*" (1 tonne Marine Gas Oil = $3.206tCO_2$).

   Resource: use the *UK government conversion tables* updates annually (2022 tables: 1 tonne Marine Gas Oil = $3.206tCO_2$ OR $3.249tCO_2e$ for all GHG)

   Note: Greenhouse Gasses include carbon which is the main culprit in shipping and aviation fuels used today. GHG audits convert all the GHGs into a carbon equivalent figure (CO2e). It will be very close to CO2 on its own but it's important to decide and specify what is included. Fuels of the future may increasingly emit more methane, another significant GHG. Account for all GHGs where possible.

3. Use the IAATO 2019 season average figures*:

   Use IAATO's average emissions per passenger per day = $0.38tCO_2e$.

   * These are only for scope 1 direct emission from the vessel / aircraft operated – likely be the bulk of your footprint. Additionally consider Scope 2 (Indirect emissions related to emission generation of purchased energy, such as heat and electricity for your office). Further consider Scope 3 emissions which are the other indirect emissions related to both emissions from upstream and downstream business activities – flights and so on. Those third-party suppliers should be encouraged to build their own climate strategy with targets.

[1] The data will be managed by the IAATO Secretariat and treated with full confidentiality. Data will be reported in an aggregated and anonymised format.

2. Reduce our impact

Step 1   Reduce Emissions

Step 2   Carbon offset and Carbon removal

Step 1 Reduce Emissions

What should operators be aiming for?

In order to keep global temperature rise below 1.5°C above pre-industrial levels by 2100, **we need to reach net zero by 2050**. This was outlined at COP21 in Paris and COP26 in Glasgow: *90% of countries have committed to net zero 2050*. To do better, many companies and organisations are aiming for net zero earlier, some as soon as 2030.

1 IAATO operator has already reached net zero

>3 IAATO operators have set a target for net zero 2030

Further, the latest IPCC report (*IPCC AR6*), released in April 2022, has determined that in order to keep global temperature rise below 1.5°C above pre-industrial levels by 2100 (with an overshoot and return to 1.5°C), GHG emissions should be reduced by 23% in 2030 and by 75% in 2050 relative to 2019.

Based on the IAATO climate change member survey in 2021 and following discussions at IAATO's Annual Meeting in 2022, IAATO Operators unanimously agreed to the following:

The IAATO Pledge

Taking the necessary steps to account for our greenhouse gas emissions;

Reducing our greenhouse gas emissions by at least 50% by 2050 compared with 2008;

Implementing a meaningful climate strategy that includes target setting and allocating resources;

Reaching Net Zero as soon as possible before 2050

What is Net Zero / Carbon Neutral ?

Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period. (*IPCC glossary*). **Carbon neutral** refers to **net zero CO_2 emissions**, not including other greenhouse gasses.

What other current regulatory requirements should IAATO members be adhering to or taking note of?

International Maritime Organisation of the United Nations (IMO)

The *IMO Strategy on the reduction of greenhouse gas emissions* set a target for at least 40% improvement in carbon intensity by 2030 relative to 2008, and 70% by 2050. Further, total annual GHG emissions from international shipping should be reduced by at least 50% by 2050 compared to 2008. (*infographic*)

Marine Environmental Protection Committee 76 (MEPC76). Vessels >5 000GT (approx 65% of the current and projected IAATO fleet) already need to comply with MEPC 76 Carbon Intensity Indicator (CII). This requires a carbon emissions intensity reduction of 11% by 2026, with 2019 the baseline year.

In line with IMO, CLIA announced a global cruise industry commitment to reduce the rate of carbon emissions across the industry fleet by 40% by 2030 compared to 2008 levels. Further, CLIA ocean-going cruise lines are pursuing net carbon neutral cruising by 2050 across the global fleet.

Antarctic Treaty Consultative Meeting (ATCM)

Antarctic tourism is regulated through the ATCM. At the *2021 meeting in Paris*, Treaty Parties formally *expressed concern* about the implications for Antarctica arising from a warming global climate and recognised the importance of implementing the Paris Agreement. Parties reaffirmed the need to 'consider the implications of climate change for Antarctica while managing human activities.'

These calls were further reinforced through the 2021 Paris Declaration on the 60th Anniversary of the Environmental Protocol. Treaty Parties stressed their commitment to regulating tourism effectively and using the best scientific and technical advice available when preparing Environmental Impact Assessments.

At the ATCM in Berlin, 2022, the Scientific Committee on Antarctic Research (SCAR) presented its report *Antarctic Climate Change and the Environment: A decadal Synopsis and Recommendations for Action*. SCAR drew the Meeting's attention to several urgent actions, both regional and global, and of the need to meet Nationally Determined Contributions in keeping the world to 1.5 degrees of warming. The Meeting agreed to send the report to IMO, IPCC and others.

National Competent Authorities (NCAs)

In 2021, IAATO was informed by its US operators that the US Environmental Protection Agency would now, as part of the authorisation process, require operators to add information about any potential climate change impacts arising from their activities to their Initial Environmental Evaluations (IEEs). Other NCAs may follow follow suit.

Although it seems unlikely that the ATCM will impose regulations on ship operators beyond those set by the IMO, it is important that IAATO demonstrates its commitment to activities that will reduce emissions to the ATCM and to NCAs.

IAATO should continue to show leadership in self-regulation by proactively addressing our environmental impacts.

The International Air Transport Association (IATA)

IATA has *committed* to net zero carbon emissions by 2050.

How can Members reduce their GHG emissions?

Energy Efficiency Measures / Guidance from IMO includes the formulation of the Ship Energy Efficiency Management Plan (SEEMP) – this is your ship-specific plan for vessel operators.

Reduction in fuel use, reduction of energy use and improving energy efficiency throughout operations by carrying out an energy or GHG audit and setting emission reduction targets.

Use of most fuel-efficient craft (e.g vessel, vehicle, aircraft).

Sustainable Aviation Measures and reducing GHG from aviation. This is the biggest challenge in terms of internal flights. Examples include ; Sustainable Aviation Fuel, energy efficient aircraft, flight paths whilst there is growth in sustainable aviation options.

Reduction of fuel use for the generation of electricity in deep field camps and on vessels - exploring lower carbon fuel sources, alternative fuel sources where fuel is used for the generation of electricity

Renewable mobile power energy generation for camps- for example: solar and wind.

Other Resources:

UNCC e-learning course (*Introductory Course on energy efficiency in shipping*)

GreenVoyage 2050 *https://greenvoyage2050.imo.org/*

What are other organisations doing?

Cruise Lines International Association (CLIA)

CLIA announced a global cruise industry commitment to reduce the rate of carbon emissions across the industry fleet by 40% by 2030 compared to 2008 levels, in line with IMO's initial strategy. CLIA ocean-going cruise lines are pursuing net carbon neutral cruising by 2050 across the global fleet.

International Air Transport Association (IATA)

IATA has set a target of net zero carbon emissions by 2050.

What pledges, targets and collaborations are out there for members to join?

Race to Zero Campaign by the UNFCCC

Race To Zero is a global campaign to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery that prevents future threats, creates decent jobs, and unlocks inclusive, sustainable growth.

It mobilizes a coalition of leading net zero initiatives: 120 countries, >1000 cities, >5000 business, > 1000 universities. It is the largest ever alliance committed to achieving net zero carbon emissions by 2050 at the latest and collectively cover nearly 25% global CO2 emissions and over 50% GDP.

Glasgow Declaration

We declare our shared commitment to unite all stakeholders in transforming tourism to deliver effective climate action. We support the global commitment to halve emissions by 2030 and reach Net Zero as soon as possible before 2050. We will consistently align our actions with the latest scientific recommendations, so as to ensure our approach remains consistent with a rise of no more than 1.5°C above pre-industrial levels by 2100. *Full text.*

Tourism Declares Climate Emergency

A global community of 437 tourism organisations, companies and professionals, all committed to delivering a Climate Action Plan aligned with the need to cut emissions in half by 2030. They initiated the Glasgow declaration, their pledge is the **same as the Glasgow declaration**.

The Climate Pledge

Businesses aiming for **Net Zero by 2040** (includes Amazon, Mercedes)

30x30

Two international networks, Campaign for Nature and Linking Tourism & Conservation (LT&C), have started an initiative which focuses on the nature based-**tourism sector** in promoting and supporting an ambitious new Protected Area target. The aim is to have **30% of the world's marine and terrestrial protected areas by 2030** (currently only 15 percent of land and 7 percent of our ocean are protected).

Science Based Targets Initiative

More than 2 000 businesses and financial institutions are working with the Science Based Targets initiative (SBTi) to reduce their emissions in line with climate science. Various targets can be registered here.

United Nations Global Compact

The world's largest corporate sustainability initiative.

Step 2 Carbon removal and Carbon offset

Reducing greenhouse gas, including carbon, emissions is the priority solution to meeting global climate targets. A low GHG economy and transport system will create opportunities for the environment, health and prosperity. It will require significant technological advancements, some of which are already under development.

Currently our industry cannot reduce our emissions enough to reach net zero. Until further reductions are possible, members can compensate for the carbon emissions they cannot reduce, by purchasing carbon offsets including carbon removal.

To offset 'is to reduce GHG emissions (including through avoided emissions), or increasing GHG removals through external activities, in order to compensate for GHG emissions, such that an actor's net contribution to global emissions is reduced'. Offsetting is typically arranged through a marketplace for carbon credits or other exchange mechanism.

Guidance from *The Oxford Principles for Net Zero Aligned Carbon Offsetting:*

'Most offsets available today are emission reductions, which are necessary but not sufficient to achieve net zero in the long run. Carbon removals scrub carbon directly from the atmosphere. Users of offsets should increase the portion of their offsets that come from carbon removals, rather than from emission reductions, ultimately reaching 100% carbon removals by mid-century to ensure compatibility with the Paris Agreement goals. Creating demand for carbon removal offsets today will send the necessary market signal to increase supply.'

Examples of Offsetting Resources (from the IAATO advisory 2018):

The Gold Standard

The Gold Standard is a widely respected certification standard for carbon offset projects.

VCS (Verified Carbon Standard)

VCS programmes provide a robust global standard and programme for approval of credible voluntary offsets.

CDM (Clean Development Mechanism)

The CDM allows emission-reduction projects in developing projects to earn certified emission reduction credits that can be traded.

SOCIAL CARBON

This standard is typically used in conjunction with a carbon accounting standard, such as the VCS or the CDM.

The Climate Action Reserve

This is a carbon offset registry for the North American carbon market for emission reduction projects.

3. Spread the word!

- Share our Pledge (your web, passenger information, marketing material, social media, press release, etc.)

- Share your Climate Strategy Journey

- Invite suppliers to align with our pledge and create a climate strategy

- Continue to engage with better environmental practices in terms of plastics reductions, bio-security, supply chain engagement

- Support passengers to calculate their carbon footprints and set reduction targets.

- Encourage passengers to offset the rest of their emissions. Some examples of free carbon calculators:

  - *United Nations Climate Neutral Now*

  - *Carbon Footprint.com*

- Engage with Education and Outreach working group support materials

- Promote Antarctic Ambassadors

- Distribute IAATO Climate Change materials as they emerge.

Appendix A. Climate Change Committee Terms of Reference

A. Core Duties of the Climate Change Committee (CCC)

1. Create and review short, medium and long-term climate change objectives that complement overall IAATO and Antarctic Ambassador strategies. Support IAATO and its membership by providing guidance on reducing and offsetting emissions including target-setting while recognizing each individual member is unique and has separate company objectives;

2. Oversee the Secretariat's management of annual IAATO carbon calculations, including carbon intensity and/or absolute carbon and long-term monitoring to assess and understand trends;

3. Identifying climate change and related issues (e.g. environmental changes) of relevance to IAATO. Assist the Secretariat and work collaboratively with other IAATO committees and working groups. Provide feedback and advice as requested in a timely manner;

4. Monitor the regulations of the Antarctic Treaty System, IMO and other relevant organizations. Report significant changes to the Secretariat;

5. Report back to the membership on IAATO activities and issues as required during the year;

6. Develop resources and tools for members, staff and travelers to understand the work we are doing and engage with lower carbon choices for themselves.