Emissions from Events: Gaps, Risks, and Reporting

Organizations that conduct events, such as conferences, conventions, exhibitions, concerts, and sporting events may not be capturing all relevant emissions in their greenhouse gas inventories. Additionally, the wide variability of events makes it difficult to define a "one size fits all" approach to collecting relevant activity data and developing accurate greenhouse gas ("GHG") inventories and reduction strategies.

In this whitepaper, we explore the challenges facing organizations seeking to report and reduce emissions from events and recommend best practices to ensure relevant, complete, consistent, transparent, and accurate GHG accounting for hosted events.[1]

Introduction

The World Resources Institute ("WRI") Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard ("GHG Protocol Scope 3 Standard") is designed to help organizations understand the GHG emissions that occur across the reporting organization's value chain. While this standard is widespread and useful, it has some limitations with respect to capturing the full emissions impacts from reporting organizations that host events, which for some organization may comprise a significant portion of their operations. In this whitepaper, we consider challenges that organizations may face when accounting for emissions from their events and recommend GHG accounting best practices for organizations that conduct events, such as conferences, conventions, exhibitions, concerts, and sporting events.

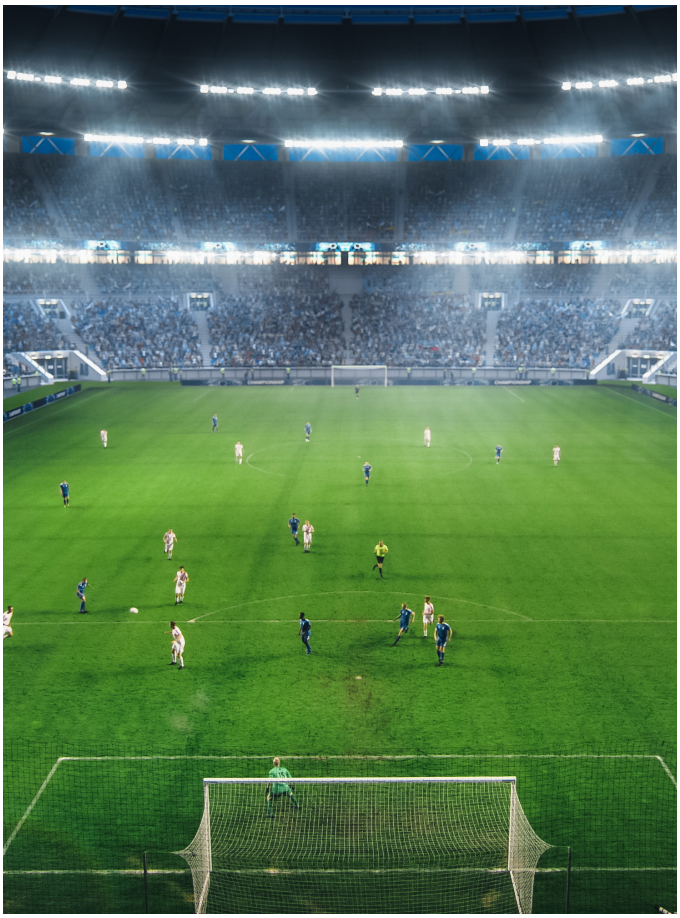
Current State of Accounting for Emissions from Events

The GHG Protocol does not provide explicit guidance for developing emissions inventories of events, beyond suggesting that event-related emissions be included in an "other" category within an organization's Scope 3 inventory.[2] Supplemental guidance developed by the United States Environmental Protection Agency ("EPA") Center for Corporate Climate Leadership ("CCCL") expands upon the GHG Protocol by providing a framework for calculating event-related emissions that can be allocated to the organizer's Scope 3 inventory. However, this guidance does not clarify the specific Scope 3 category under which event emissions source should be included.[3] Nor does it define the specific boundaries of the activities for which emissions should be reported.

Many other articles and sites provide patchwork guidance for determining relevant emissions sources from events, but there is currently no definitive framework for determining the boundary for these emissions sources and aligning them to the scopes and categories outlined in the GHG Protocol.[4, 5]

Why Does This Matter?

Lacking explicit guidance, organizations may exclude relevant emissions from hosted events in their GHG inventories, resulting in an incomplete and inconsistent understanding of their operations' environmental impacts and obscuring opportunities to reduce GHG emissions. However, by adopting best practices for GHG accounting that prioritize relevance, completeness, consistency, transparency, and accuracy organizations can develop robust and actionable emissions inventories that include hosted events.[6] By tracking and reporting these event-related emissions, organizations will achieve greater insight into the impacts of their business activities and take credit for their efforts to address these impacts.



Challenges with Accounting for Emissions from Events

The lack of comprehensive guidance coupled with the wide variability in events leads to challenges when accounting for events-related emissions. These challenges and recommendations for addressing them are explored in the following sections.

Establishing Event Boundaries

Challenge: *Event-related activities that produce GHG emissions often take place across multiple periods and many locations.*

Although events are typically conducted during a specified time in a specified place, activities related to the event often take place period before and after the event itself. Without establishing clear guidelines for determining which emissions are considered "in scope" for a specific event, it can be difficult for organizations to collect the required activity data needed to inventory the related emissions.

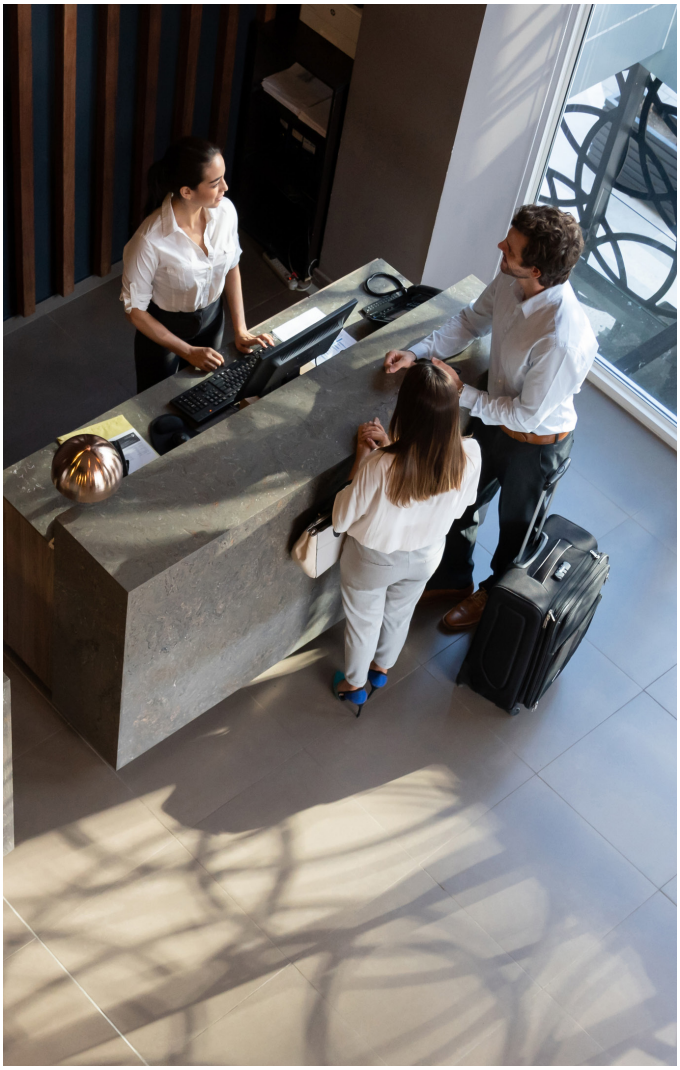
Recommendation: *Set clear temporal and geographic boundaries for events conducted by your organization and consistently account for emissions from activities that fall within these boundaries.*

Temporal boundaries may include the pre-event planning period, the event itself, and any post-event activities; while the geographic boundaries may include the physical location(s) in which the event takes place, staging and storage spaces, travel to and from the event, and lodging secured for the event's attendees.

For example, the 2021 United Nations Climate Change Conference ("COP26") defined its event preparation period as May 1, 2021-October 30, 2021, as this time period incorporated most of the planning activities. The emissions from the actual COP26 event were reported from October 31, 2021-November 12, 2021, during which time delegates and attendees actively participated in the conference. Finally, post-event activities took place from November 13, 2021-March 31, 2022, which included many similar activities as the pre-event and event phases, such as operations in the venues, accommodations, catering, waste generation, etc.[7]

Some events may have easily defined geographic boundaries, while others may not. For example, COP26 took place in two distinct areas of Glasgow, Scotland called the Blue Zone and Green Zone. The COP26 emissions inventory included emissions associated with activities taking place in these two zones, as well as the transportation of attendees to and from these zones.[8] Emissions related to unofficial events outside these zones were excluded from the geographic boundary, even though these unofficial events were only taking place because of COP26.[9]

Depending on the type of event, the geographic boundary may extend well beyond the event venue. For example, the International Olympic Committee accounted for activities that took place a significant distance from Paris, France during the 2024 Summer Olympic Games, such as the surfing events taking place in Tahiti, over 10,000 miles away.[10, 11]



Identifying Event Emissions Sources

Challenge: *Events often have unique circumstances, making it challenging to develop a "one size fits all" approach to defining relevant emissions sources.*

Every event and even recurring events may have different emissions sources, so it is often not possible to develop a single list of emissions sources that can be associated with all events. Even after establishing temporal and geographic boundaries for an event, organizations may find it challenging to identify relevant emissions sources within these boundaries.

Recommendation: *Use existing guidance and best GHG accounting practices to identify relevant emissions sources. Take advantage of the GHG Protocol Scope 3 screening criteria and EPA guidance to help determine whether an emissions source is relevant to an event.*[12]

As a starting point, organizations that host events can review GHG accounting frameworks and reporting by peer organizations to identify emissions sources that may be relevant to their own events.

The EPA CCCL guidance highlights some emissions sources that are likely applicable to many types of events. These include:

— Attendee travel to and from events

— Hotel stays by attendees

— Venue energy consumption

— Refrigeration and air condition systems used for the event

— Production of food and materials used for the event

— Disposal of waste generated by the event

— Construction of new facilities for the event[13]

Some organizations report additional sources, such as:

— Services hired to support event functions – e.g., emergency and catering services hired for the event[14]

— Logistics used to support the event – e.g., materials and equipment shipped to- and from the event venue[15, 16, 17]

The GHG Protocol Scope 3 Standard's criteria are also helpful for identifying relevant emissions sources. These criteria can be used to qualitatively assess the

relevance of an emissions source by considering their size relative to other sources, the level of influence the organization exercises over the emissions source, how the emissions source contributes to the organization's risk exposure, whether the emissions source is an outsourced activity that was previously performed in-house, or whether sector-specific guidance identifies the source as significant.[18]

Aligning Emissions Sources from Events with GHGP Scopes/Categories

Challenge: *Depending on the circumstances, organizations may report event-related emissions under Scopes 1, 2, and 3. Existing GHG accounting frameworks do not provide a single category for reporting emissions from events.*

Once relevant emissions sources have been identified, organizations should group them into Scopes 1, 2, or 3 in accordance with GHG Protocol guidance. However, since the same emissions source may experience different types of ownership and operatorship for different events, there is no "one size fits all" guidance on sorting event-related emissions sources by Scope. For example, if a host organization owns and operates a shuttle bus used to transport attendees, this emission source will fall under the organization's Scope 1 emissions. For a different organization that rents a shuttle bus service, those emissions would fall under their Scope 3 emissions. Given the potential differences in who owns and operates certain emissions-generating assets, it is not possible to say that a certain emission source, such as a shuttle bus, should always be categorized as Scope 1, 2 (if it is an electric vehicle), or Scope 3.

Recommendation: *Host organizations should assess their degree of control over the emissions sources using their selected consolidation approach to determine whether they fall under Scope 1, 2, or 3. For Scope 3 emissions, if the emissions source does not appear to fall under any of the predetermined Scope 3 categories, include it in a Scope 3 "Other" category.*

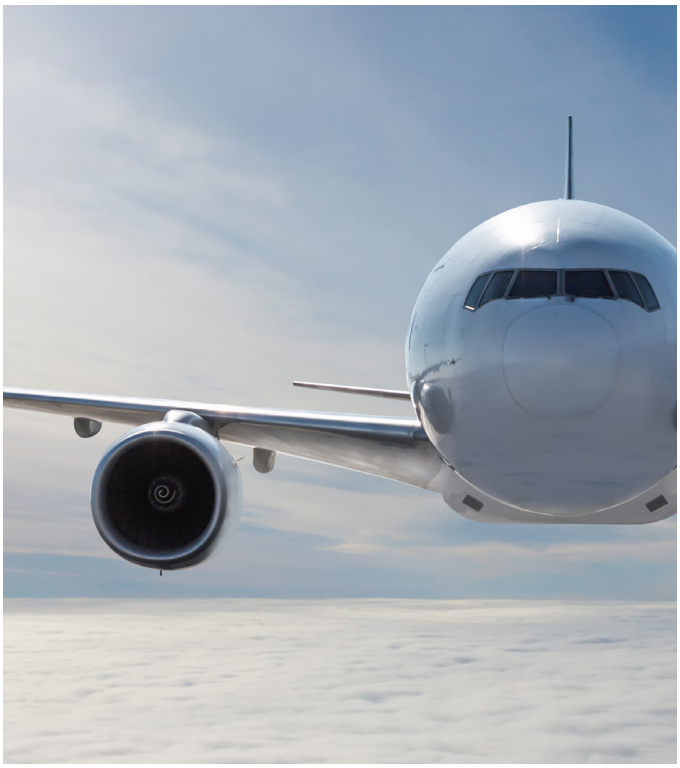
After identifying emissions sources associated with their events, organizations can group those emissions into Scopes 1, 2, or 3. Organizations should apply the consolidation approach used for their organization-wide inventory (*i.e.*, operational control approach, financial control approach, or equity share approach).[19] Organizing an event's emissions into Scope 1, 2, and 3 categories makes it easier to benchmark against peers and understand how your organization's environmental performance compares to other events of similar size and scope.

For example, the international art fair Art Basel, produced by MCH Group, takes place in the exhibition center Messe Basel in Basel, Switzerland annually. While MCH Group does not own Messe Basel, it claims operational control over the venue during the fair and therefore includes the venue's operational emissions in its Scope 1 and 2 inventory.[20]

Third-party services hired to support an event, such as caterers, entertainment, and medical and security services, likely fall under an organization's Scope 3 emissions as purchased services. Similarly, materials purchased for an event, such as food and beverages, decorations, and furniture, likely fall under the organization's Scope 3 emissions as purchased goods. These emission sources will likely be categorized under Category 1: Purchased Goods and Services.

Many events will also have Scope 3 emissions associated with logistics or shipping, waste generation and disposal, and event staff commuting.[21, 22, 23, 24] These emission sources often will be easily categorized into Scope 3 categories such as Category 5: Waste Generated in Operations, Category 7: Employee Commuting, and Category 4: Upstream Transportation and Distribution.

Other emissions sources may be more difficult to categorize in an inventory. For example, international air travel by attendees is often a major source of emissions for large events and conferences. In most cases, attendees are not employees of the host organization and the host does not pay for this travel, so these emissions would not fall into the minimum boundaries for business travel or employee commuting under Scope 3.[25] However, excluding these emissions could result in an incomplete representation of the event's emissions and environmental impact. Where event organizes can account for these emissions, the GHG Protocol recommends that these types of emissions be grouped and reported under an "other" Scope 3 category.[26]



Collecting Data

Challenges: *Data may be difficult to collect after an event has already taken place, especially if the event involved temporary relationships with vendors and other third-parties.*

Collecting data related to events can be a challenge for the organizers. In many cases, the event organizer body is not party to relevant transactions, such as airfare or accommodations purchased by attendees. Further, after an event has taken place, it can be challenging to collect data from vendors and attendees. For example, if the lease on the event venue has expired, the venue owner may be unresponsive to requests to retroactively provide data on energy consumption during the event period.

Recommendations: *Identify required activity and put collection procedures in place before the event. If data cannot be collected, use GHG accounting best practices to fill data gaps or estimate data*

It is critical that a host organization identify the activity data necessary to calculate event-related emissions and proactively put data collection procedures in place. Host organizations can include requirements to provide specific data points in contracts with vendors and venues and provide data collection templates. For example, a host may require that leased venues provide fuel and electricity consumption data that can be apportioned by the reporting organization using the duration and square footage of the event (*e.g.*: square-footage-based method), or required vendors hired to support the event to estimate the emissions for their services (*e.g.*, service-level accounting). Host organizations can also aim to collect certain data when attendees register for events, such as approximately how far the attendees will travel to get to the event, what mode of transportation they plan to take, and what type of accommodations they plan to book while attending the event.

If high quality, granular data for any emissions source is unavailable, host organizations can explore options for secondary data, such as averages or estimations, to fill in data gaps.

Tracking Data, Emissions, and Progress Over Time

Challenge: *Events may be one-time occurrences. Even recurring events may take place in different places or under different conditions each time, making it difficult to track the impact of emissions reduction activities year-to-year.*

Emissions inventories are powerful resources to guide decision making and track progress towards sustainability goals and other environmental targets. However, if an event only occurs once or reoccurs in different places under different conditions, it can be difficult to consistently track metrics that show progress towards emissions reductions.

For one-time events, organizations will not have a time series of emissions inventories against which to measure the impact of sustainability measures implemented during the event. For recurring events, variations in factors such as local energy mixes, attendee travel distances and modes, and need for support services can lead to dramatically different emissions estimates. This will make like-for-like comparisons with previous emissions inventories challenging and compromise the effectiveness of the emissions inventory as a sustainability decision making tool.

Recommendation: *Organizations that host events that take place under the same conditions each year can more easily track progress towards absolute emissions reductions. Organizations that host one-time events or recurring events that take place under differing conditions can track metrics to standardize the comparison of emissions event-to-event or make best effort estimates of the impacts of their sustainability measures on emissions.*

Absolute emissions can be an effective metric when comparing like-for-like events with the same format each year. For example, annual inventories of The Championships, Wimbledon, a professional tennis tournament that takes place at the same venue each year, shows that absolute emissions from the tournament experienced a sharp decrease due to the COVID-19 pandemic but have steadily increased in the years since.[27]

When tracking changes in absolute emissions is not effective, organizations can use other metrics to standardize the comparison of emissions event-to-event, such as tracking emissions or energy consumption per square foot of venue space, travel emissions per attendee, or emissions per dollar revenue from the event. For example, the 2018 United Nations Climate Change Conference ("COP24"), which took place in Katowice, Poland, published estimates of its emissions per attendee and found that they were similar to those estimated for attendees of previous COPs, such as COP14 and COP22, held in Poznan, Poland in 2008 and Marrakech, Morocco in 2016, respectively.[28] Organizations that transparently report differences between their hosted events, such as the number of days, number of attendees, and changes in venues, when preparing annual reports will be able to develop intensity-based metrics that allow year-to-year comparisons more successfully.

Organizations that host one-time events will likely be unable to track emissions intensity metrics over time. Even some recurring events may take place under such variable conditions as to render emissions intensity metrics ineffective at showing progress over time. To give an inventory more meaning, organizations that host these types of events may model business-as-usual emissions scenarios for their events to estimate the impact of any implemented sustainability measures. This was done for the 2021 Tokyo Olympics and 2020 Dubai World Expo, as each occurrence of the Olympics and World Expos takes place in very different locations and under different organizing committees, making event-to-event comparisons impractical.[29, 30]

Conclusion

Organizations committed to taking action to report and reduce their events-related emissions can adapt current GHG accounting standards and best practices to develop actionable good faith inventories. However, the GHG protocol is already considering changes to its Scope 3 guidance with a public consultation period expected in the second half of 2026.[31]

Going forward, organizations whose operations involve hosting events can submit comments to GHG Protocol's working groups tasked with updating the Scope 3 Standard. For example, stakeholders may propose or request updated guidance on accounting for emissions associated with events, such as explicitly including these emissions under Scope 3 Category 6: Business Travel,[32] or adding a new Scope 3 category for client or visitor travel.[33] Some stakeholders have proposed updating the GHG Protocol Scope 3 boundaries, as well.[34]

More consistent and clear guidance from the GHG Protocol and other standards on accounting for emissions from events will allow organizations to consistently track their emissions and other environmental metrics over time, conduct more accurate peer benchmarking, and measure progress towards their environmental goals.

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