# Are Dalhousie's Conferences "Green"? – A Sustainability Review of Dalhousie's Halifax Campuses Conferencing Procedures

## Final Report
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# 1.0   Executive Summary

The main purpose of this research project was to highlight a new area of improvement for sustainability on Dalhousie University's campus. Currently, there is limited research on the environmental impact of typical conference practices, however there are a few published studies that suggest conferences are quite unsustainable due to greenhouse gas emissions and wasted materials. This report focused on conferences held on Dalhousie's the Halifax campus. The organizers of five conferences were interviewed in order to get a better understanding of the factors that determine their planning decisions and to assess the degree to which environmental impacts of their conferences were considered.

Our study found that conference organizers are most concerned with conference costs and food when planning conferences, with paper use and transportation also viewed as areas of interest.

Based on our findings, we recommend that a conference planning policy with a corresponding guidebook be created to incorporate sustainable practices. This type of assistance will mitigate any uncertainty around what practices are sustainable and provide a sense of ease for people who wish to hold a conference at Dalhousie but have little experience with thinking sustainably. We also recommend that a comprehensive review of large conferences held at Dalhousie should be conducted, in order to better asses the extent to which sustainability practices are considered in conference planning.

# 2.0 Introduction

## 2.1 Background Information

Dalhousie University seeks to be a leader in sustainability and has been implementing policies to reduce its environmental impacts for over thirty years (Dalhousie University, 2016). Dalhousie's Office of Sustainability has stated that their mission is "to create campus solutions that support positive ecological, social, health, and economic outcomes" (2016). Recent changes in operations to improve sustainability include new waste management procedures and requiring all new buildings to meet LEED Gold standards (Dalhousie University, 2016).

As Dalhousie aims to be a leader in campus sustainability, every opportunity should be taken to promote sustainable practices and encourage all individuals that utilize the campus to participate in these practices. Creating policy is a good way to make sustainable practices mandatory on campus and gives authority to campaigns that promote a greener campus. Currently, no conference-specific policies concerning environmental sustainability exist at Dalhousie, however all meetings and events held on Dalhousie's Halifax campuses are required to abide by existing university sustainability policies (L. Quinn, personal communication, February 26, 2016).

This research project gathered information about the choices that individuals who organize conferences make and investigate their reasoning behind these decisions. Analysis of our findings allowed us to determine the degree to which conferences at Dalhousie adhere to existing university policies, and aided in developing recommendations for the development of a green conferencing policy for the University.

## 2.2 Literature Review

### 2.2.1 Environmental Impacts of Conferences

The production of new materials such as plastic utensils and paper plates requires millions of hectares of land and generates billions of tonnes of waste each year (Young, 1991). Implementing green conference policies has the potential to reduce the consumption of natural resources and redirect large quantities of waste from landfills to facilities where they can be properly recycled. Dalhousie already implements divided, well-labelled waste receptacles to help ensure that as much waste as possible is directed to the proper facilities (Dalhousie University, 2016), however, with thousands of people passing through Dalhousie's Halifax campuses each year for conferences, it is vital that these protocols are being followed by attendees in order to reduce waste as much as possible.

At a typical 5-day conference with 5000 attendees, an average of 125 000 disposable plates, 175 000 napkins, 150 000 single use cups or glasses, and 180 000 cans or bottles are used (Meeting Strategies Worldwide, 2008). Along with waste, conferences also generate significant amounts of $CO_2$ emissions, largely due to transportation and accommodations required by the attendees. One study suggests 500-1000 kg of $CO_2$ is produced per attendee due to transportation and accommodation of attendees from out of town (Terrapass, n.d.).

The beginnings of a solution have emerged out of a concept called "green" or sustainable conferencing. The United Nations Environment Programme defines this type of meeting as "one designed, organised and implemented in a way that minimises negative environmental impacts and leaves a positive impact for the host community" (2009).

## 2.2.2 Economic Benefits of Green Conferencing

Incorporating sustainability is becoming an increasingly integral part of businesses' cost reduction strategies (Clarkson et al, 2011). As the cost of non-renewables continues to increase, those organizations that already have sustainable practices implemented will have an advantage. In a competitive business environment such as conference hosting, and for the university as a whole, environmental sustainability should be a key priority. Additionally, being able to market conferences held on campus as environmentally sustainable would draw in groups with like-minded concerns about ecological issues.

A study by Choi & Ng (2011) showed that client/consumer satisfaction increases when the client/consumer believes that the company they are supporting has ethical practices, even if it means paying more for these services compared to other, less ethical companies.  This is also true for staff motivation and job satisfaction. Employees feel better about working for a company that "cares and is responsible" (Choi & Ng, 2011). Therefore, having an ecologically centered principle underlying conference guidelines would give Dalhousie Conference Services an advantage when clients are deciding where to book their event. It would also have the potential to increase employee morale and reduce turnover (Clarkson et al, 2011).

Additionally, all profits generated from events held at Dalhousie University, including conferences, are invested in the university (L. Quinn, personal communication, February 26, 2016). By using environmentally sustainable technology, such as energy efficient lighting and low flush toilets to reduce facilities management costs, Dalhousie is able to reduce the cost of hosting conferences, resulting in greater returns for the university. Reducing waste and reusing conference supplies such as tablecloths, eating utensils, and dishes also results in reduced costs and increased profits.

## 2.2.3 Green Meeting Standards from Government and Non-Government Organizations

Studies on the environmental impact of conferences have been primarily focused on conferences held by government and non-government organizations; little research exists for conferences held by academic institutions. By reviewing Dalhousie's conferencing policies and making recommendations for improvement, other academic institutions could follow Dalhousie's example. Research in this field will also raise awareness of the environmental impacts large academic institutions have.

Each of these guidelines vary slightly in terms of scale, though they all have a similar list of considerations for those in planning and leadership positions. The initial reasons why an organization should consider green conferencing include: long-term cost reduction, health

benefits for attendees, increased awareness of environmental issues for both attendees and organizers, and increased value of the business/organization brand. All three guidelines also aim to reduce environmental impacts of conferences by using methods such as: booking venues in energy efficient buildings, reducing the use of disposable materials, providing sustainable food options for attendees, and facilitating the use of public transportation for attendees. The guidelines recommend that all attendees be informed about sustainable policies applicable to the conference and ensuring that all policies are followed by attendees.

All of these guidelines provide suggestions that Dalhousie could consider in order to reduce the environmental impact of the conferences held on campus.

## United Nations Environment Programme Standards

The United Nations Environment Programme (UNEP) created a report in 2011 called the "Green Meeting Guide." The report itself was only released in web page PDF format, therefore eliminating the use of papers and inks to relay the information. The guide was designed "to assist organisers and hosts of small to medium-sized meetings of up to 200 participants" (UNEP, 2009), and could therefore be helpful when considering gatherings of similar size at Dalhousie.

## David Suzuki Foundation

The David Suzuki Foundations has many resources available on their website (www.davidsuzuki.org) to inform both businesses and individuals about ecological issues, and ways to reduce their ecological footprint. There is a section on decreasing the environmental impact of workplaces, and a section called "How to Host a Sustainable, Carbon Neutral Conference or other Event," which gives advice and guidelines for all different types of meetings and conferences from a planner's perspective (see Appendix IV for full guidelines).

## Sustainable Events Denmark

Sustainable Events Denmark (SED) released an e-pamphlet called the "Copenhagen Sustainable Meetings Protocol" which was based on analyses of the 2009 United Nations Climate Change Conference and other similar events that demonstrate leadership in sustainability. This document is intended to serve as a framework for other businesses and corporations to use when planning their own events (SED, 2016). It focuses on sustainability strategy, leadership, stakeholder engagement, operational integrations and governance when planning large-scale events.

## 2.3    Purpose and Goals

This research project gathered information regarding the planning and implementation of conferences on campus and the degree to which sustainability was considered in the decision-making process by conference organizers. The qualitative analysis of our findings allowed us to determine the degree to which conferences at Dalhousie adhere to existing university policies concerning sustainability, and aided in developing a green conferencing policy for the University.

Our findings will be valuable to the Office of Sustainability and Conference Services department at Dalhousie University, as our findings and recommendations may enhance conference planning and hosting in the future.

Additionally, by providing research on why individuals that plan conferences make the choices they do, it will allow for an effective and feasible plan to be created. We also hope that by reviewing Dalhousie's conferencing policies and making recommendations for improvement, other academic institutions could follow Dalhousie's example. Research in this field will also raise awareness of the environmental impacts large academic institutions can have.

### 2.3.1  Project Scope

The scope of our research was confined to conferences held on Dalhousie University's Halifax campuses (Studley, Carleton and Sexton campuses). Our focus was on large conferences held between March 2014 and March 2016 at Dalhousie University, with large conferences being defined as an attendance of 20 people or greater.

## 3.0  Methods
### 3.1  Description of Study Design

Because of the narrow scope of our study, we had a limited population to sample and interview. This lead us to use non-probabilistic purposive sampling, using face-to-face, semi-structured interviews.

### 3.2  Justification of Study Design

We chose to conduct face-to-face interviewed because it allowed interviewees to provide us with inside knowledge about the process of conference planning, and allowed them the opportunity to elaborate on their answers, providing us with more information (Palys & Atchison, 2014).

We could only benefit from information that was provided by individuals who have organized or planned large conferences at Dalhousie, and there were a few individuals that we were able to connect with. We started our process by contacting Conference Service at Dalhousie University and had an informal meeting to learn how conferences were organized at the university. We were able to get contact with individuals to interview through the help of our group mentor, Erik Fraser.

### 3.3  Interview Procedures

Our group conducted five face-to-face, semi structured interviews with individuals who have organized conference that were held at Dalhousie. The interviews were conducted by two group members, one individual asked the questions while the other recorded the answers. The interviews were recorded to ensure that all the information and answers were captured. The audio tapes were reviewed and a transcript of the interviews was written at a later date for

analysis. All of the interviews conducted followed the same procedures. Before beginning the interview, we asked participants to read and sign consent forms stating that their participation was voluntary (see Appendix I). We then introduced ourselves, however, we did not familiarize the interviewees about the objective of our research in order to prevent biased answers. The next phase of the interview was asking our semi-structured questions (see Appendix II for questions). It was important for the interviewer to ask the questions in a way that allowed the interviewee to elaborate with their answers. Interviews were held in small study rooms in the Killam Library Learning Commons; each interview took approximately 10-15 minutes to complete.

## 3.4    Data Analysis Procedures

After all of the interviews were transcribed and compiled into a single document, we analyzed the collected data using a *grounded a posteriori* context-sensitive scheme with the help of Quirkos data analysis software. This analysis method was used because the purpose of our research was to understand current planning procedures involved in conferences, and we did not have a predetermined idea of what the findings were going to be. Codes were created after interviews were held in order to minimize bias.

## 3.5    Limitations and Delimitations
### 3.5.1    Limitations of the Study

The first limitation that we experienced in our project was a restricted time frame. Our research was conducted in the winter term of the 2015/16 academic year, so the number of conference organizers we were able to interview was limited.

The other limitation we faced is that all of the individuals who were interviewed had organized student conferences, which meant that they had a small budget. We were not able to get in contact with individuals who have organized faculty-lead conferences, or conferences that were independent from the university. This limitation is related to the constricted time frame of the study. The majority of large conferences, and the ones with the most attendees (200 attendees and up) are held at Dalhousie in the summer (L. Quinn, personal communication, February 26, 2016), however, we were unable to contact these conference organizers due to our restricted time frame and limited resources.

### 3.5.2    Delimitations of the Study

The delimitation of our project was the location of the study. We chose to limit our research to conferences held at Dalhousie University's Halifax campuses; we did not study conferences held on the Truro campus. We chose to narrow the scope of the study through the location. The restricted time frame did not give us the opportunity to study conferences that were held on all of the campuses. It is possible that discrepancies exist in the way that conferences are organized on the Truro campus compared to the Halifax campuses.

# 4.0    Results

After the five interviews were transcribed, Quirkos software was used to code the interviews. From the five interviews, a total of 121 quotes were identified as being important in relation to the objective of our research. These codes were grouped in 13 categories; "money", "food", and "paper use" were the most frequently mentioned categories (see Figure 1).



Figure 1.  Coding results and categories from five interviews using Quirkos data analysis software (Quirkos Limited, Edinburgh (UK)). The size of each circle is relative to the number of quotes mentioning the category.

The "food" category was the most frequently mentioned category, with 26 quotes mentioning food as an area of interest when planning conferences. One notable quote from an interview was related to food waste; the interviewee stated that "we were wondering what we would do with all the extra food…[it] would be nice to know if it [was going to] be thrown away" (personal communication, March 2016). Other interviewees mentioned that they donated unused food but were unsure if this was permitted under their contract due to concerns from the supplier over food safety and liability (personal communication, March 2016).

24 quotes mentioned "money" as something that was very important when planning conferences. One notable quote from an interviewee concerning venue choice was: "we picked Dal[housie University] because it's too expensive to [host a conference] somewhere else" (personal communication, March 2016).

The third most frequently mentioned category was "paper use", with 11 quotes. The "transportation" category followed with 10 mentions; one interviewee mentioned that the conference organizers "set up a ride share so no one was coming in an empty car[…]we were able to get a bus [to bring groups of people from further away]" (personal communication, March 2016).

Using Quirkos software, quotations from interviews could be assigned to multiple categories, allowing us to see trends in the areas of interest for organizers. The most frequently connected category was "money", which had strong connections to the Food category. A summary of the coding results using Quirkos software is found in Appendix III.

# 5.0 Discussion
## 5.1 Significant Findings

The terms "food" and "money" both had the highest number of hits when we ran the transcribed interviews through the Quirkos coding program, meaning that information about these two topics was brought up most frequently by all conference organizers that we interviewed. Food had 26 hits and money had 24, accounting for over half the total number in the analysis. Every conference that we looked at had food provided for attendees, and there was a resultant large amount of concern placed on this aspect of the event. Not having sufficient amounts of food for the number of attendees was a common concern among organizers, as was ordering too much and wasting money. As these intertwined problems suggest, our analysis also showed that the money and food categories also overlapped the most with each other. The choices for where the food was sourced from also correlated with cost for all conferences; in other words, organizers chose the most cost effective food options, which was usually Dalhousie Food Services.

The "money" category also overlapped with also with the "Dal conference", "cons", "local" and "priorities" categories, which is not surprising as every aspect of the conference relies on money in order to function. All of the conferences that we looked at were student run, which meant that they had relatively small budgets or had to rely entirely on grants or sponsorships from school societies or other outside organizations. Student run conferences also were much more likely to choose venues on campus because they had access to certain rooms for a discounted price or free of cost. Many organizers stated that they would not have been able to afford any other venue. Cost also determined where people could stay in terms of accommodations; "lodging" (accommodations) had 8 hits. Hotels that provided better rates for those booking in larger numbers or with group packages were selected by organizers for the attendees and speakers simply because of reduced cost. Cost was the number one priority that determined how all the other aspects of the conference were carried out.

"Paper use" was the next highest category with the 11 hits. If attendees were provided with anything beyond food it was typically a paper handout or programme/ brochure outlining speaker biographies and the conference schedule. While most of the organizers tried to reduce the amount of handouts provided, there still were some groups that had multiple pages distributed. However, a lot of information was also made available online by conference organizers for their attendees in order to reduce the costs associated with printed handouts and schedules.

The "transportation" category had 10 hits. Many of the conferences we looked at had people coming from out of province, so they had to first get to Halifax, and then get from their accommodations to the venues where the conferences were being held each day. Speakers and special guests had these provided for them, some attendees carpooled, and there were also chartered buses made available through some organizers. Communal travelling was usually considered due to its appeal with reducing costs for attendees and organizers. Transit maps were also made available to those staying in Halifax so they could use public transportation to get to and from the venues, while other organizers covered the costs of cabs for speakers and special guests. Some of the accommodations were located close to the university, making it easier for attendees to arrive by foot rather than by motor vehicle.

"Cons of Dal conferences" had 9 hits, while "pros" only had 1 hit. This contrast may have been due to one of our interview questions asking how Dalhousie conferences could be improved, however, it reflects that there is room for improvement in conference planning protocol at Dal in order to better serve conference organizers, especially students. An interviewee stated that they would have liked to see more faculty members from Dalhousie engaged in the conference process (personal communication, March 2016), especially to share their knowledge with people visiting the university. Others felt very "locked-in" to using Dal food services and wished that more options were made available to them.

"Recycling of materials" (7 hits), "local" (4 hits), "other material use" (3 hits) and "energy use" (1 hit) were the other categories that received the least numbers of hits, but are still noteworthy topics. These topics all typically centered around people making an effort in consider ecological impacts in their conference plans. When asked if they considered environmental sustainability at all in the conference planning process, all the interviewees were able to find a few topics to give an environmental spin on. It is interesting to note that in the majority of the cases present in the conferences we looked at, reducing costs also meant increasing environmental sustainability. By putting more thoughtfulness to sustainability organizers may be able to both reduce costs and at the same time reduce the ecological footprint that their event creates.

## 5.2    Consideration of the Findings

Though there is a lack of information and research about sustainable conferences policies available from other universities, we can still compare our findings to the conference guidelines created by the government and non-government organizations mentioned earlier: The United

Nations Environment Programme (UNEP), David Suzuki Foundation and Sustainable Events Denmark (SED).

Awareness is one of the most important tools highlighted in the guidelines by the David Suzuki foundation, as conference organizers have access to a large number of people. Making sustainability a talked-about issue, or involving it in some way in the conference, even if it isn't the main topic of discussion can help to achieve this. One conference exemplified this by having door prizes that were all locally sourced, which not only provided support to the local economy, but also raised awareness of supporting local businesses.

Organizers could reduce food waste and increase the number of sustainable food options for attendees in a few different ways. Excess food was donated by one group of organizers to a local homeless charity following their conference; another conference donated their food to a conference that was being held immediately after theirs. Other organizers expressed concern that they did not know where the extra food was going when they didn't use it during their conference, showing interest in reducing waste. Another group was able to incorporate "the Loaded Ladle", into their food options, which provided their attendees with vegan, locally sourced food.

Providing attendees with less carbon intensive forms of transportation (i.e. walking, public transportation, carpooling) was achieved by some conferences, though there were others that still used private transportation to transport speakers.  Reducing the use of disposable materials was best implemented by one of the conference organizers who used no handouts for attendees and instead made schedules available online for reference. The guides call for reusable cutlery, water bottles and proper waste disposal systems.

It was positive to see so many examples of sustainability incorporated into conferences held at Dal that were not discussing topics concerning environmental sustainability, but there were still many places where these practices could be improved. With no existing guidelines regarding sustainable conference planning at Dalhousie University, it is completely up to the discretion of conference organizers to make an effort to implement sustainable conferencing measures.

## 6.0   Conclusion
### 6.1   Recommendations for Action

Since the conference planning handbook released by Conference Services is currently under review, now would be the ideal time to include sustainable conference planning options for organizers. This could include a list of possible options for all aspects of conference planning such as alternatives to paper handouts, bus route information, and guidelines for minimizing food waste.

Additionally, many interviewees mentioned that they felt that they were unaware of other conferences that were organized at Dalhousie so they were unable to contact other organizers to obtain information regarding planning. Having a way to contact organizers would allow

sustainable conferencing strategies to be shared amongst conference organizers and could increase conference planning efficiency through reduced resource use.

Many of our interviewees stated that funding was often a concern for them. We recommend that the Office of Sustainability and/or the Dalhousie Student Union Sustainability Office (in the case of student-run conferences) provide grants for conference organizers with the stipulation that it must be spent in an environmentally responsible manner, such as locally sourced food or arranging carpooling groups through smartphone apps.

The development of sustainable conference planning options in the Conference Planning Handbook may take some time. In the meantime, we recommend that all conferences held at Dalhousie follow (to the best of their ability) the guidelines released by the David Suzuki Foundation. These guidelines are included in Appendix IV.

## 6.2    Recommendations for Future Research

Due to the limited scope of our study, our findings may not accurately reflect what occurs at all large conferences held on Dalhousie's Halifax Campuses. In order to have a better idea, we recommend that a review of conference activities and planning procedures is conducted; this could be done by the Office of Sustainability in partnership with Conference Services.

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# Appendix I: Consent Forms

We invite you to take part in a research project involving conferences on Dalhousie. This study is being done by Kortney Foley, Samantha Nicole, Mona Sharari, Ross Li and Melina Biswas. We are undergraduate students in the Faculty of Arts, Community Design, and Science at Dalhousie University in Halifax, Nova Scotia. We are doing this research for a class project in ENVS 3502, a class instructed by Tarah Wright. The information below tells you about our research and what you will be asked to do. It also tells you about any benefits, risks, or inconveniences you might experience. Approximately six other people who have been involved with Dalhousie Conference Services will be involved in this research.

To help us understand how conferences held at Dalhousie are typically planned and executed, we will ask you to answer a series of questions in an open ended format about your experiences with the conference you were involved in. The interview will be recorded for data analysis purposes but the recordings will not be presented to the class. At least two members of the group will be there for each interview. This research project does not involve potential risks to participants. Is it our anticipation that the data collected from this research may be helpful in improved planning of conferences at Dalhousie in the future. The interview is expected to take 15 -20 minutes.

It is your decision whether or not you want to take part in this research project. Even if you do take part, you can leave the study at any time for any reason. All information you give to members of our research team will be kept private. When we share our project findings in our report and presentation we will only talk about group results. This means that it will not be possible for you to be identified. Any identifying information will be kept in a separate file, in a locked cabinet or password-protected, secure file.

If you agree to participate in this research project, we will have you sign a hard copy of this form preceding the interview. We are happy to share our results with you in early April when the project is completed. You can contact me by e-mail (kortney_foley@hotmail.com) for these results.

**I have read the explanation about this study. I understand what I am being asked to do and my questions about the study have been answered. I agree to take part in this study. I know that participating is my choice and that I can leave the study at any time.**

_____          _____
**PARTICIPANT'S SIGNATURE**                       **DATE**

_____          _____
**RESEARCHER'S SIGNATURE**                       **DATE**

_____          _____
**RESEARCHER'S SIGNATURE**                       **DATE**

If you have any questions, comments, or concerns about your participation in this research project, please contact myself, or the course instructor, Tarah Wright (Tarah.Wright@dal.ca).

# Appendix II: Revised Interview Questions

1. Can you introduce yourself and what role you play in conference planning and organizing?

2. What are your top three priorities when planning conferences?

3. What considerations went into choosing your specific venue(s)?

4. Was this event catered? If so, by whom? What considerations went into the decisions?

5. What other supplies, if any, were participants of this conference provided with? (i.e. paper handouts, brochures etc)

6. What accommodations were typical for attendees of this conference?

7. Do you know how most attendees got to and from the venue(s)?

8. Do you have any concerns about how conferences are currently being planned and organized at Dalhousie University?

9. Overall, would you say you consider environmental sustainability when planning a conference? How so?

**Appendix III: Quirkos Coding Results**

# Quirkos Report

**Quirkos**

This report was generated by Project on Apr 7, 2016 7:33:51 PM for the following file: Project.qrk

## Sources Summary

| Title | Author | Date and Time | Length | Quotes # |
|-------|--------|---------------|--------|----------|
| 1 | Project | Mar 28, 2016 1:59:14 PM | 7151 | 36 |
| 4 | Project | Mar 28, 2016 2:26:16 PM | 6376 | 23 |
| 5 | Project | Mar 28, 2016 8:23:59 PM | 8155 | 25 |
| 3 | Project | Mar 31, 2016 3:35:56 PM | 6809 | 16 |
| 2 | Project | Mar 31, 2016 3:48:42 PM | 9125 | 21 |

# Main Canvas Views

## Quirks Canvas - Primary

# Quirk Overlap View: Money



# Quirk Overlap View: Food



# Quirk Overlap View: Paper Use

# Quirk Overlap View: Dal Conference
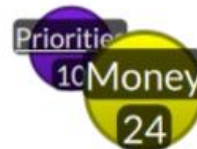


# Quirk Overlap View: Cons



# Quirk Overlap View: Local



# Quirk Overlap View: Priorities



# Quirk Overlap View: Other material Use



# Quirk Overlap View: Recycling of material

## Appendix IV: David Suzuki Foundation Conference Planning Guidelines

From: http://www.davidsuzuki.org/what-you-can-do/reduce-your-carbon-footprint/how-to-host-a-sustainable-carbon-neutral-conference-or-other-event/



**How to Host a Sustainable, Carbon Neutral Conference or other Event**

Large events such as conferences, sports competitions, concerts, festivals, and conventions can be major sources of greenhouse gas emissions. Electricity, heating and air conditioning, ground transportation, air travel, paper and other materials are just some of the ways that large events contribute to climate change. However, many event organizers are recognizing that large events do not have to have a huge climate impact and, in fact, can play a positive role by becoming low-carbon or even carbon neutral.

Through the establishment of greenhouse gas reduction and offsetting initiatives, event organizers can take responsibility for their emissions, use their larger purchasing power and profile to lead in climate change action, and support the transition to more sustainable energy use. Benefits include the opportunity to publicly demonstrate commitment to sustainability and to inspire participants and spectators to choose low-carbon options in their own lives, as well as saving money through measures such as reducing energy consumption.

Recent major events that have taken responsibility for their greenhouse gas emissions include: the 2008 Montreal Jazz Festival, the 2007 Academy Awards, 2006 FIFA World Cup Soccer, the Dave Matthews Band concert tour, and the 2005 United Nations Climate Change Conference. The environmental leadership demonstrated by these events is helping to transform the event industry, with green initiatives quickly becoming an expected part of holding an event.

Virtually all aspects of any event can have a reduced climate impact, including: venue, registration, accreditation, transportation, offices, food and beverage services, procurement, and production. Climate-friendly practices range from waste minimization and energy conservation to using renewable energy and carbon offsets to mitigate emissions that remain after reduction efforts.

Organizers can also incorporate other greening initiatives at their event to complement their climate-friendly practices: water conservation or promoting positive social and economic development.

**Getting Started**

Climate-friendly event practices needn't be limited to large-scale events. You can green an event of any size. For example, wedding planners are increasingly choosing to hold low-carbon or carbon neutral weddings.

Making an event carbon neutral is similar to making an organization or company carbon neutral. First, get a full commitment to a climate-friendly event from management when the planning starts. Then you'll also need to allocate enough money, people and time to ensure that the initiative succeeds.

**Identifying Emissions Associated With the Event**

The next step is to define the carbon footprint of the event by identifying all sources of event-related greenhouse gas emissions. Major emissions sources will likely include travel to the host city, local road transportation, energy consumed by the event venue and energy used through stays at local hotels or homes. Smaller emission sources include transportation of goods the event needs, event organizer travel during planning and preparation, energy consumed by the event office, paper use and waste generation.

**Reducing Emissions Is the Highest Priority**

Once all emissions sources associated with the event are identified, strategies for reducing these emissions need to be devised. This is the most important step in staging a low-carbon event. If possible, targets can be set to help track performance. For instance, organizers may set out to reduce travel-related emissions by 25% by encouraging some participants to use videoconferencing. Or if the event is held annually, reduction targets can be based on previous years' emissions.

Destination, venue and accommodation selection — as well as available transportation options and procurement decisions — will all impact the carbon footprint of the event. In general, the event's scale and nature will influence how best to reduce its greenhouse gas emissions, but some actions include:

Destination Selection

- Select a destination city that is close to the majority of the participants and is served by direct flights. Multiple take-offs and landings result in higher emissions from <u>air travel</u>

- Choose a destination city with a good public transport system that connects the event venue with major transportation hubs and accommodations.

Venue Selection and Service Provision

- If possible, choose a venue that is <u>LEED</u> certified, or one that employs energy- and water-efficient equipment and practices, and schedules heating, ventilating and air conditioning (HVAC) resources around meeting requirements.

- Request organic, <u>locally produced food and beverages</u> to cut transportation emissions. Organic food and beverages do not use synthetically produced fertilizers or chemicals derived from fossil fuels.

- Eliminate disposable containers, plates, bowls, cups and cutlery.

- Set up a compost program for all food waste. Composting reduces the amount of waste going to landfill and cuts emissions of methane, a potent greenhouse gas.

Accommodation

- Provide guests with information about accommodations with environmental certification or with environmental policies and practices.

- Negotiate room blocks with hotels that are within walking distance of the event venue and/or have green policies.

- Ask guests to participate in linen reuse programs at their hotels. Ask them to shut off lights, televisions and air conditioners or heaters when they leave their rooms.

Transportation

- Offer guests the choice to attend the event via videoconferencing.

- Use alternative fuel vehicles in a guest shuttle service.

- Alternatively, provide free passes for public transit.

- If taxis must be used, choose taxi companies with hybrid vehicles.

Procurement

- Use Forest Stewardship Council (FSC) certified paper, processed chlorine free and made from 100 percent post-consumer recycled content. Producing a tonne of recycled paper results in 80 percent fewer $CO_2$ emissions.

- Use printers and photocopiers that are Energy Star certified.

- Choose suppliers that provide low-carbon products or services.

**Measuring the Event's Carbon Footprint**
This means calculating the amount of greenhouse gas emissions generated by each source. The complexity of emissions calculations will vary with the size of the event. Small events can use existing online emission calculators . Bigger events often use a consultant or carbon offset provider to perform the calculations.

**Offsetting Event-Related Emissions**
Once energy conservation and emission reduction strategies are exhausted, emissions that cannot be further reduced or eliminated can be offset. Renewable Energy Certificates (RECs) may be used to offset the electricity used during the staging of the event. Carbon offsets can be used to offset all emissions, including those from air travel, energy use (including electricity), vehicle use, etc. It is absolutely essential to choose a provider of high quality offsets to ensure that reductions in greenhouse gases actually occur.

If the carbon offsets purchased represent the total amount of emissions your event is responsible for (i.e., those that could not be avoided or reduced), you have succeeded in making your event carbon neutral!

**Engaging Event Participants**

Holding a low-carbon event can help raise awareness of climate change issues and actions that can be taken to reduce or offset greenhouse gas emissions, so it's important to inform participants about the initiative. The event's website, event program, press releases, opening, signage and post-event publications can all deliver the message. Large event organizers may want to set up an onsite sustainability booth to provide information about the event's greening initiatives, and also issue a press release that discusses the event's environmental initiatives.

Organizers may also choose to get participants involved by getting them to offset their own emissions. That option needs to be part of the registration or ticketing. However, passing on the onus of offsetting emissions to participants may not work, as not all participants will choose to do so. One option is for organizers to take responsibility for any leftover emissions not offset by participants. Another is to build the cost of offsetting into the ticket price. Whichever course you choose, make sure participants know you're making the event a low-carbon one.

## Other Ways to Make Your Event More Sustainable

As well as the low-carbon strategy for your event, there are many other practices that you can incorporate to reduce the environmental impacts of the event as well as maximize its social and economic benefits. Examples of event greening practices that can be integrated into various aspects of the event planning process to address environmental, social and economic impacts include:

Registration and Accreditation

- Electronic event registration.

- Lanyards made from recycled materials. Asking participants to return them after the event.

- Post-consumer recycled paper and vegetable-based inks for badges.

Transportation

- Providing shuttle service drivers with training in environmentally responsible driving practices.

- No idling at the venue and major transportation hubs, such as airports.

Venue Selection

- Ensure the venue is able to provide you with required data for the monitoring and evaluation of greening practices.

- If you negotiate environmental practices not currently in place at the venue, ensure them by including them in contracts.

Food and Beverage

- Organic, fairly traded coffee and tea.

- Leftover food donated to local charities.

- Seafood served is harvested responsibly.

- Vegetarian meals or vegetarian meal options.

Exhibition Production

- Provide exhibitors with guidance on sustainable design and construct of exhibit booths.

- End-of-show take-back and recycling program.

Marketing and Communications

- Electronic or paperless communication.

- Sustainable printing guidelines.

Procurement

- Consider the environmental, social and economic impacts of a good or service throughout its lifecycle. Favour goods and services that result in minimal environmental impacts and foster positive social and economic development.

- Use environmental criteria as well as quality and price.

- Develop contract riders to hold suppliers accountable to sustainability commitments.

Offices

- A sustainable procurement strategy for kitchen, office and cleaning supplies, furniture, office equipment and gifts.

- A recycling program for glass, metals, plastic and paper.

- Minimize paper use; encourage double-sided printing.

- Develop an environmental awareness program.