ParlAmericas

Guide on Green Parliaments:
Actions to Promote Sustainable Practices within Parliaments

Canada

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1. Introduction

Increased efforts to mitigate and adapt to the impacts of climate change require the support and contribution of all stakeholders, including parliaments. Not only can they positively contribute to the climate agenda through their functions of lawmaking, representation, oversight, and budget approval, but parliaments can also reduce the environmental footprint of their institutions. Leading by example, parliaments can contribute to overall national emission reduction targets by adopting strategies to lower their greenhouse gas (GHG) emissions and improve the overall sustainability of their activities.

Using this guide

This guide outlines actions that parliaments can take to measure their current environmental footprint, and using this information, improve their sustainability practices and consciousness. This is not a complete set of potential actions, but rather a tool to start a dialogue within parliaments and to assist in the establishment of internal commitments and the development of a corresponding plan of action.

It is recognized that parliaments, like all institutions, have financial and human resources constraints. In pursuing actions to reduce GHG emissions, parliaments may need to prioritize or start with small projects. For this reason, the actions in this guide with a lightning symbol (⚡) signal those actions that are relatively straightforward and of a smaller scope. These may be an ideal starting place if resources or other obstacles make some of the more complex actions impractical in the immediate.

The Parliament of Canada introduced a green team, "Partners for a Green Hill," that worked on sustainability issues.

To support this initiative, parliaments can consider establishing a green team or designating individuals to track and/or lead GHG emissions reduction work, including establishing a baseline, assigning reduction goals, implementing actions and educating colleagues on these initiatives.

2. Establishing a baseline

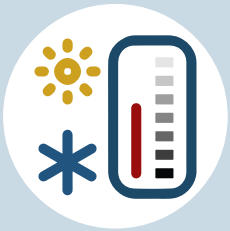
In order to identify priority actions and measure the impact of changes that are introduced, parliaments can establish a baseline (also referred to as a CO_2 inventory) by compiling and examining data to understand the current use of resources and corresponding GHG emissions of the parliament.

Step 1: Define the parameters of the baseline by identifying the scope of what will be measured, and which parliamentary departments and buildings will be included.

According to the GHG Protocol Corporate Standard [1], endorsed by the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, GHG emissions are generally divided into three categories called scopes:

Scope 1

Direct emissions from sources owned or controlled by the parliament (i.e. boilers, furnace and fleet vehicles)

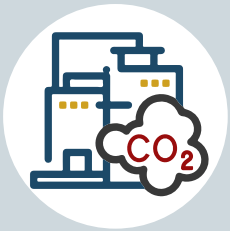


Scope 2

Indirect emissions from the generation of purchased energy (electricity).

Scope 3

Indirect emissions from activities undertaken by the parliament (i.e. travel, procurement, water and waste)



Note: Scopes are also categorized based on whether emissions are directly or indirectly controlled and sourced by the parliament. Scopes 2 and 3 are classified as indirect, as the parliament does not directly control the operation or source of purchased energy or the emissions produced through all the activities it undertakes to fulfill its mandate. See section on Examples of GHG Emissions of Parliaments for more detail.

Step 2: Compile the relevant activity data for the selected sources of GHG emissions. As a starting point, the baseline can be created from data sources that are widely available and easy to track such as fuel and mileage logs, utility bills, and travel and procurement records.

Step 3: Convert activity data to CO_2 emissions to enable a more detailed analysis of the parliament's current carbon emissions. Converting activity data to the same unit of measure (CO_2 emissions) allows the parliament to compare emissions from different sources that may have originally been captured in different units, i.e. electricity in megawatts and car travel in liters of gasoline, to determine which sources are producing the highest emissions. See the box on Converting Activity Data to CO_2 Equivalents for additional information.

CONVERTING ACTIVITY DATA TO CARBON DIOXIDE EQUIVALENT

Activity data X Emission factor = CO_2 Equivalent

Example: In 2018 the annual electricity consumption of the parliament's main office was 300,000 kWh (found in the annual utility bill). The country's published emission factor for electricity in 2018 was 0.531 tCO_2/MWh.

300MWh X 0.531 tCO_2/MWh = 159.3 tCO_2eq

t: tonnes*

CO_2eq: Carbon dioxide equivalent is a measure used to compare the emissions from various greenhouse gases based upon their global warming potential (source: OECD[2]).

MWh: Megawatt per hour *

Emission factor: The emission factor is the ratio between the amount of pollution generated and the amount of a given raw material processed (source: OECD[3]). Emission factors may be provided by national/sub-regional governments through their National GHG Inventory Reports (i.e. Canada provides emission factors in its national inventory[4], and The Atmospheric Fund[5] provides the province of Ontario's specific emission factors; similarly Costa Rica provides its emission factors in this inventory[6] developed by the National Meteorological Institute, the IPCC also has an international database[7] of emission factors).

*Units of measurement may differ; therefore it is important to ensure the consistency of units being used throughout the equation.

For more information on creating a baseline consider consulting the

World Resource Institute's publication on Working 9 to 5 on Climate Change: An Office Guide[8].

Note: It may be more difficult to quantify some indirect emissions and convert them to CO_2 equivalents, particularly within Scope 3 (like single use plastics, food served (particularly meat), paper consumption, waste, etc.). These can still be noted using different measurement units or in a qualitative way, so that progress can still be monitored.

Step 4: Determine how often to report on the parliament's GHG emissions, to measure progress. If possible, it is encouraged for institutions to report annually. To facilitate this process, it can be helpful to develop a centralized system that captures this data on a regular basis.

Examples of sources of GHG emissions of parliaments

HEATING AND COOLING (SCOPE 1) AND ELECTRICITY USAGE OF PARLIAMENT BUILDINGS (SCOPE 2)

- ➞ Review utility bills for each of the parliament's buildings.
- ➞ Identify the source of heating and cooling (gas, electrical, coal, etc.) and electricity (hydro, solar, wind, nuclear, natural gas, coal, oil, etc.).
- ➞ Calculate the monthly heating, cooling, and electricity usage of each building, disaggregated by energy source.

FLEET FUEL USAGE (SCOPE 1)

- ➞ Identify the different vehicles that the parliament operates and record the type of vehicle (truck, SUV, car, hybrid, electric, etc.) and type/amount of fuel it consumes (diesel, petrol etc.).
- ➞ Calculate the monthly mileage of each vehicle.

WATER CONSUMPTION (SCOPE 3)

- ➞ Review utility bills for each of the parliament's buildings.
- ➞ Track the monthly water usage per building.

EMPLOYEE TRAVEL (SCOPE 3)

- ➞ Calculate the number of flights taken in a month, as well as the total distance flown (this information is usually included on flight itineraries) and the travel class (economy or business – business class takes up a greater amount of space[9] in the aircraft which reduces the total number of passengers that can be transported).
  - Carbon emissions calculators, such as the International Civil Aviation Organization (ICAO) calculator[10], can help to obtain estimates.
- ➞ Calculate employees' commutes between their home and workplace by using distance-based averages (Google Maps can be used to obtain the total distance), disaggregated by mode of transportation (walking/biking, public transportation, carpooling, driving, etc.).

PAPER CONSUMPTION (SCOPE 3)

- ➞ Track the number of pages printed per department or office each month (if the parliament's printers have this function).
- ➞ Track the amount and frequency of paper purchases in a month, and the paper type (is it recycled?).

WASTE AUDITS (SCOPE 3)

- ➞ Plan a waste audit[11], a method for analyzing an organization's waste stream. In general, the process consists of identifying waste categories (e.g. paper, plastic, glass, compost, garbage etc.) sorting the waste from each office/building based on the identified categories and recording the weight of the waste in each category. Determine the percentage of waste for each category, as well as the percentage of contamination (wrongly sorted items).

PROCUREMENT AUDITS (SCOPE 3)

➞ Identify financial resources spent on single-use plastics (e.g. bottled water).

➞ Identify the lifecycle emissions associated with foods consumed in cafeterias, especially for meat.

➞ Create easy-to-answer checklists that help assess the impact of procurement.

- How many purchases or services are provided by local, small and medium enterprises?
- How many purchases or services are provided by companies led by women, Indigenous peoples, visible minorities, or other traditionally marginalized group?
- Are certifications considered when purchasing items? For example, sustainable paper (FSC[12], Rainforest Alliance[13], etc.); energy-efficient electronics and devices (ENERGY STAR[14]); fair trade[15] products; sustainability standards (GRI[16], UN Global Compact[17], etc.).
- Is the life cycle of purchased items considered?

There are tools and services available to help institutions measure their carbon footprint. Where possible, parliaments can also consider joining a national or regional program that works with institutions on cutting down their emissions (e.g. Huella Chile[18], Programa País de Carbono Neutralidad Costa Rica[19], Huella de Carbono Perú[20], Huella Ecológica Ecuador[21]). There are also local consulting companies that may offer services to the parliament to help them calculate their baseline and identify actions to help reduce their footprint.

The Secretariat of Environment and Natural Resources of Mexico developed an emissions calculator[22] to aid stakeholders in creating their inventory.

3. Taking action to reduce the environmental footprint

After a baseline is established, Parliaments can then set reduction goals and develop an action plan to achieve the goals adopted.

- **It is important to take incremental steps**: Identified goals should be both ambitious and feasible within the time-period established so that progress can be measured and achieved, which will motivate further action.
- **Changes in consumption requires a change in behaviour**: Education and communication are essential to raise awareness on the actions being taken by the individuals working in the parliament to positively change the consumption culture. This can be accompanied by rewarding active responsible employees for their efforts.
- **Reduce, reuse, recycle, and compensate**: When developing a sustainability plan for the parliament, it should consider setting out actions that prioritize reducing at the source to prevent the creation of waste and emissions. Only after every effort has been made to reduce should actions be taken, in hierarchical order, to reuse, recycle and compensate.

Examples of actions that parliaments can take

WASTE REDUCTION

☑ Reduce single-use plastic

- Provide and encourage the use of reusable dishware and cutlery instead of disposable ones.
- Do not provide plastic straws, and if necessary, offer straws that are made of biodegradable substances and can be composted and upon request only (e.g. paper, pasta, bamboo, etc.).
- ○ Provide more accessible filtered or tap water instead of bottled water.

The Parliament of Antigua and Barbuda limits the use of single-use plastics such as plastic utensils.

☑ Host waste-free sustainable events

- Provide vegetarian options.
- Reduce the amount of printed material distributed.
- Select decorations or marketing materials that can be re-used for other events.
- ○ Refrain from using single-use plastics (see above), provide non-bottled beverages, and reduce the amount of packaging from catering.
- ○ Instead of throwing away leftover food, provide it to employees or a soup kitchen/charitable organization.

☑ Introduce recycling and compost within parliament buildings

- Become familiar with local recycling and compost guidelines.
- ○ If the municipality does not offer recycling and/or compost services, inquire if they can be contracted out to a local business.
- ○ Introduce compost bins in every cafeteria or lunchroom.
- ○ Incentivize employees to recycle all paper (including paper towels not contaminated by food), glass, plastic, and aluminum used in parliament.

The Chamber of Deputies of Brazil clearly labels their waste bins to indicate proper sorting.

☑ Introduce green procurement training or criteria

- Introduce a tool or a checklist to consider the longevity of products that are purchased, consider the quality of the product, its use (will it be used more than once), and its necessity.
- ○ Consider environmentally friendly certificates or standards when purchasing office supplies (as mentioned above in the Procurement Audits section).
- ○ Prioritize local products from small and medium enterprises.

☑ Encourage waste-reduction practices among employees

- Conduct zero waste challenges, in which employees aim to produce the least amount of garbage for one week. The garbage that could not have been avoided is kept in a container for personal reflection and to compare how much waste one creates in a week.
- Reuse garbage bags if they are not dirty and make garbage containers smaller than recycling bins.
- Encourage employees to print less and consider the amount of use the document will have. When possible, make greyscale and double-sided printing features the default options on all computers.
- Conduct paper-free meetings.
- To avoid reprinting, introduce a policy whereby simple mistakes are acceptable for non-sensitive / internal documents (i.e. typos can be corrected with pen).
- ○ Conduct an inventory of programs and applications that can assist in dematerializing office needs (documents, calendars, agendas, contacts, clipping, archiving, etc.).
- ○ Digitize documents and enable the use of an electronic signature so that they can be viewed electronically and facilitate document sharing and creation.

The Congress of Mexico and the Congress of Peru have initiatives to digitize their documents and reduce the overall use of paper.

ENERGY AND WATER CONSUMPTION REDUCTION

☑ **Consider introducing some retrofits into parliament buildings to improve their energy efficiency**

- Update lighting with LED lights or install sensor lights that ensure lighting system automatically turns off when rooms are unoccupied.
- Improve insulation of windows and door frames by sealing them.
- Update low-efficiency electrical devices (refrigerator, computers, printer, etc.).
- Introduce low-flow faucets or install aerators.
- Install water-efficient toilets.
- Introduce rain gardens and rain barrels to help water the parliament's natural landscape.
- Create green roofs on existing buildings.
- Introduce more natural and native greenery around buildings to provide natural cooling and incentivize employees to go outside.
- Focus on energy efficiency, efficacy and effectiveness.

☑ **Apply sustainable design standards to new constructions and major renovation projects, and adopt alternative clean energy sources**

- Consider building to a green standard (e.g. LEED[23], BREEAM[24], EDGE[25]) and refer to the International Organization for Standardization (ISO) energy efficient standards.
- Take steps towards becoming a net-zero or net-positive energy building (i.e. buildings that generate 100% or more of their energy needs on-site) by introducing renewable energy for the building (solar panels, geothermal energy, etc.).
- Install grey water systems.
- Consider the resiliency of the parliament buildings against disasters by better preparing for natural hazards[26] (severe and extreme weather and climate events[27]).

☑ **Encourage energy-saving practices**

- Encourage turning off lights when a room is not in use, through signage.
- Avoid leaving computer screens on and put computers to sleep when not in use. Turn computers off at the end of the day.
- Unplug devices that are not in use to avoid plug loads.
- Keep air vents clear of obstructions to allow air to circulate freely.
- Be mindful of the temperature set in the building. The recommendation[28] is 20°C - 25°C depending on the climate/season (the closer the temperature to the outside, the better for energy and cost savings).
- Decentralize water heating at point of use to offer heated water on demand only rather than offer continuous and excessive water heating.
- Address emissions from cloud storage by encouraging archiving of data to reduce energy used by servers.

The Congress of Paraguay has signage that asks users to turn off the light when the bathroom facilities are not in use.

☑ **Assess whether parliament buildings can obtain electricity from a renewable source**

- Explore opportunities for the external provision of renewable energy (i.e. explore local utility companies or private companies that can provide partial or complete sourcing of energy from renewal sources).

Through public bidding, the Chamber of Deputies of Chile[29] has sought to source the building's supply of electricity to a sustainably-generated renewable energy to eradicate fossil fuel consumption.

SUSTAINABLE TRANSPORTATION

☑ **Encourage more sustainable forms of commuting to work** (e.g. carpooling, public transportation, walking/biking)

- ϟ Allow or introduce policies about working from home and using videoconferencing systems for meetings.
- ○ Provide incentives to use greener forms of transportation (e.g. showers in workplace buildings for employees to freshen up after biking/walking to work, secure bike storage, employee discounts for public transit passes, incentives for car-pooling).
- ○ Install electric car and bike charging stations.
- ○ Improve the sustainable practices related to parliamentary transportation fleets.
- ϟ Reduce the number of trips with a single passenger.
- ϟ Encourage the use of public transportation.
- ϟ Introduce idling policies for stationary vehicles (e.g. they should be turned off after one minute).
- ○ Introduce hybrid and electric vehicles.
- ○ Calculate frequency need for circulation of fleet and add more mass transportation when needed.

The National Assembly of Ecuador is working on transitioning their parliamentary fleet to electric vehicles.

☑ **Reduce or take more sustainable forms of air travel**

- ϟ Promote travel via train or bus when possible when travelling for work purposes.
- ϟ Purchase carbon offsets when parliamentarians and parliamentary staff travel as part of their functions (see Compensation section).
- ○ Adopt policies that promote flying in economy instead of business class.
- ○ Allow the remote access to parliamentary systems and the use of video conferencing for remote work of parliamentarians and members of the administration, and enable the participation of parliamentarians to virtual committee meetings and plenary sittings from time to time[30].
- ○ Consider making parliamentary sitting weeks longer but less numerous.

During the COVID-19 pandemic many parliaments transitioned to working remotely[31], post-COVID-19 parliaments can continue to make this option available to staff whose responsibilities permit this, and to parliamentarians who are on sick or parental leave or working in their constituency, for example. This could reduce the emissions regularly resulting from their daily commute and flying to and from their constituency.

KNOWLEDGE CAPACITY AND OTHER GREEN HABITS

- ϟ Encourage meat-free lunches by providing vegetarian options and pricing meals according to their carbon footprint.
- ○ Develop a communications plan to disseminate information to employees about green actions and how to engage with them.
- ○ Introduce community gardens outside of parliament buildings.
- ○ Host informative sessions to teach employees about climate change, the initiatives the parliament is taking to become green, how to garden, etc.

4. Compensation

Compensation is meant to be used when all feasible options to reduce GHG emissions have been exhausted. It is encouraged to compensate any emissions that could not be reduced through the purchase of carbon offsets. Carbon offsets are credits for GHG reductions that are achieved by another party to help offset emissions.

Many companies offer the purchase of these offsets, but it is important to ensure that they are certified to a recognized standard (Gold Standard[32], CDM[33], VCS[34], Climate Action Reserve[35], etc.).

PARLAMERICAS AND THE CLIMATE NEUTRAL NOW INITIATIVE

The Climate Neutral Now initiative[36] was launched in 2015 to encourage diverse stakeholders to reduce their GHG emissions. Stakeholders that sign the pledge to address their climate footprint go through a three-step method of measuring, reducing and compensating their emissions.

The ParlAmericas International Secretariat signed the pledge[37] to join this initiative. International Secretariat staff agreed to compensate the emissions associated with work travel through the purchase of carbon offsets via UNFCCC's Carbon Offset Platform[38].

Parliaments and parliamentarians are invited to join the International Secretariat staff and offset their flights. Please notify the ParlAmericas Climate Change Program of your intention to do so, or if you wish to receive further information about this initiative (ParlAmericasCC@parlamericas.org).

Global Climate Action
United Nations Climate Change

CLIMATE NEUTRAL NOW
MEASURE REDUCE OFFSET

Should you wish to communicate any good practice that may exist in your parliament, please communicate it with the ParlAmericas International Secretariat at ParlAmericasCC@parlamericas.org

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