

1. What does 'Carbon Neutral' mean?

Carbon neutrality is about recognizing that we are responsible for 100% of the carbon pollution (greenhouse gases) we generate.

It's a process of measuring the amount of carbon released and balancing this with an equal amount of carbon credits in order to create a 'carbon neutral' outcome.

2. What does achieving carbon neutrality involve?

- a. Measure: • Measuring GHG (greenhouse gas) emissions
- b. Reduce: • Reducing emissions where possible, at source
- c. Offset: • Purchase of carbon offsets to offset the remainder

3. What is the impact of Carbon Pollution?

Global Warming

4. What is Global Warming?

Global warming – also known as climate change – is a rise in global temperatures caused by rising levels of greenhouse gases in our atmosphere.

5. What are greenhouse gases?

Greenhouse gases are pollutants released into the air that increase the warming effect of the sun's radiation.

Some greenhouse gases occur naturally in the atmosphere; others result from human activities such as fossil fuel combustion and land use changes.

Greenhouse gases include: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

6. How do greenhouse gases damage our atmosphere?

Greenhouse gases (GHGs) trap the heat of the sun, causing a "greenhouse," or warming, effect.

Today's atmosphere contains 32 per cent more carbon dioxide than it did at the start of the industrial era.

Climate change means much more than hotter temperatures; it has the potential to permanently alter life, as we know it.

Effects can include: • Rising sea levels, decreased snow packs and increased glacial melting •

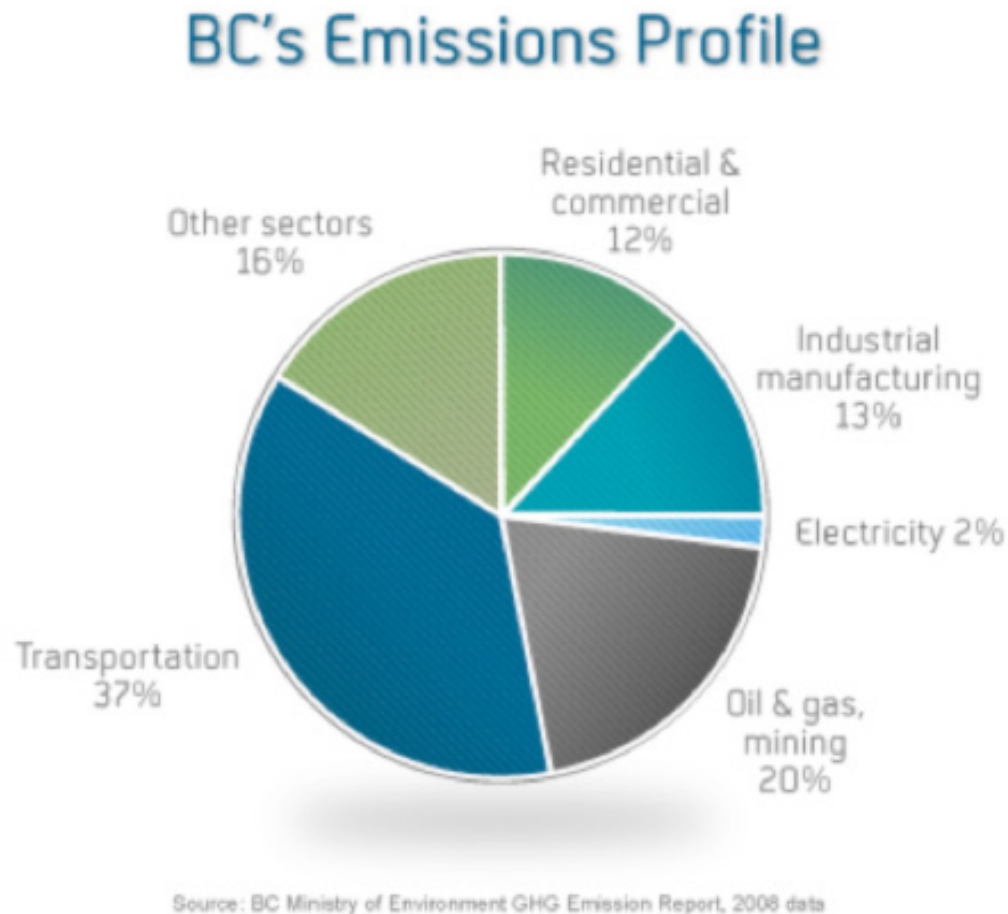
Increased heat waves and droughts • Increased extreme precipitation

These changes can lead to increased risks of: • Extinction of up to 30 per cent of plant and animal species • Decreases in global food production

All of these impacts have the potential to devastate our quality of life, both here in BC and globally.

7. Where do most of the GHG emissions come from in BC?

In 2009, BC's emissions sources were as follows:



Source: Livesmart BC

8. What strategies did the Ashram implement in order to achieve Carbon Neutrality?

Yasodhara Ashram has been involved in green practices since its inception in 1963, initially implementing the 3Rs program (Reduce Reuse Recycle) and practicing organic gardening and composting. A vast program of upgrades and retrofits of buildings was launched in the

1990s to reduce electrical, gas and propane consumption, and in the 2000s included the installation of geothermal and solar heating systems as well as the first steps to upgrade its vehicles.

In 2008, the Ashram more specifically committed to be carbon neutral by 2013 – the Ashram’s 50th anniversary.

To do this, the Ashram developed a comprehensive program of sustainability that embraced menu planning, food ordering, green housekeeping, solar and geothermal heating systems, and carbon offsets for guest travel. Timeless Books, the Ashram’s publishing house, formalized a policy to print on 100% PCW paper at a carbon neutral facility in BC, and the Ashram Bookstore’s purchasing guidelines focused on items from carefully chosen companies that exhibit sustainable practices.

9. What were the key steps taken on the path to lighten the Ashram’s carbon footprint:

- a. Eliminated waste oil furnace and installed solar and geothermal systems.
- b. Upgraded buildings to increase efficiencies – from weather-stripping to increasing the R-value of the building envelopes.
- c. Replaced all incandescent light bulbs with compact florescent bulbs. Upgraded all fluorescent tube fixtures with energy efficient models.
- d. Developed and implemented a policy of purchasing only EnergyStar rated appliances and fixtures.
- e. Replaced older vehicles with smaller more energy efficient models and purchased two Neighbourhood Electric Vehicles for all local errands and transportation needs within the Ashram. Fuel consumption has decreased by 50% over five years.
- f. Planted 3,000 seedlings and started the process of protecting and enhancing our forested lands.
- g. Changed our menus, redeveloped our orchards and gardens and localized more of our food sources.
- h. Reduced the use of the propane oven with the installation of an EnergyStar-rated commercial convection oven.
- i. Introduced a Ride Share program for Ashram guests and residents.
- j. Upgraded the Ashram-wide recycling program. Initiated the process of waste reduction and set a goal of 50% reduction for 2013.
- k. Timeless Books, the Ashram’s publishing house, began its move to e-books and print on demand publishing using FSC certified paper at a carbon neutral facility in BC.

10. What did the final stage of becoming Carbon Neutral entail?

The Ashram measured its GHG emissions and then reduced emissions by implementing its Carbon Neutral program. The Carbon Neutral program succeeded in generating an 83% reduction in direct emissions.

The last step for handling the outstanding emissions is being handled through the purchase of carbon offsets from Pacific Carbon Trust's portfolio of BC-based greenhouse gas reduction projects.

These projects are operated by organizations that have invested in new activities and infrastructure to reduce their emissions, relying on the income from selling offsets to help make these projects viable.

11. What is a Carbon Offset?

A carbon offset represents a reduction or sequestration of greenhouse gas emissions generated by activities in one location – such as improved energy efficiency – that can be used to compensate for, or offset, the emissions from another source, such as a plane trip.

It is measured in tonnes of carbon dioxide equivalents (CO₂e). Because our atmosphere is like an ocean of gases, reducing carbon emissions at any location will benefit the whole planet.

Offsets are generated from changes made to avoid or absorb (sequester) greenhouse gases.

Typically offsetting generating activities fall under three categories:

Project Type	Example
Energy Efficiency	Agriculture: Installation of energy curtains in greenhouses Oil & Gas: Use of new technologies to reduce vented natural gas during extraction process
Fuel Switching	Transportation: Transition from diesel to natural gas or electricity Industrial: Switch from coal to biomass
Sequestration	Forestry: Improved forest management leading to more carbon stored

Source: www.pacificcarbontrust.com

12. What is a “carbon footprint”?

A carbon footprint is a calculation of GHG emissions caused by an individual, organization or activity. It is usually expressed in terms of the amount of carbon dioxide equivalent (CO₂e) emitted.

13. Who is the Pacific Carbon Trust?

Pacific Carbon Trust (www.pacificcarbontrust.com) is a Crown corporation established in 2008 to deliver BC-based greenhouse gas offsets, to help clients meet their carbon reduction goals and to support the growth of BC’s low-carbon economy.