

## Calculate your carbon footprint

This questionnaire will enable you to estimate the amount of CO<sub>2</sub> (carbon dioxide) and other greenhouse gas emissions that you are responsible for, as a household, over a 12-month period. Once you have completed the form, arrange for it to be returned to the Carbon Neutral Trust. We will calculate your emissions and sequestration, create a record of these for you and send you the results together with suggestions on how you could reduce them. We will then contact you next year to update your calculations so that you can measure your progress.

### Terminology

You will see the term CO<sub>2</sub>-e used throughout this questionnaire. It stands for "carbon dioxide equivalent", and is a standard unit for measuring carbon footprints. Rather than identifying each greenhouse gas individually (CO<sub>2</sub>, NO<sub>2</sub>, CH<sub>4</sub>, etc.), their effects are grouped together and expressed in terms of the amount of CO<sub>2</sub> that would create the same amount of warming.

### Before you start

Some of the data that we ask for will require you to find that from different sources around the home and/or from utility and council billing documents or to make some simple calculations. Have a read through the questionnaire first so that you can obtain the necessary information before you sit down to complete the form.

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### Contact Details

Name:

Email:

Postal Address:

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### Household Details

Enter the number of people that live in your household (Note 1)

Enter your Postcode (Note 2)

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### Your Sequestration

1. What is the size of your property in square metres?

If living in an apartment or rented property, enter 0.

(Reminder: 1 acre = 4000sq.m, 1 ha = 10,000sq.m) (Note 3)

2. Enter the number of trees on your property by height (Note 4)

Small: < 2m

Medium: 2-5m

Large: > 5m

3. Enter the number of bins of each type of compost system (Note 5)

80 Litre

120 Litre

240 litre

Wormfarms

Bokashis

## Your Emissions

### 1. Energy

Enter your monthly consumption of Mains electricity and Gas

(a) Mains electricity in kWh: (Note 6)

(b) Mains gas in kWh: (Note 7)

(c) Enter your annual consumption of LPG Gas and Wood & Coal for indoor fires

Energy Type	Number (enter No)	Size (tick)					
Gas bottles (Note 8)	<input style="width: 100%; height: 25px;" type="text"/>	45kg	<input type="checkbox"/>	90kg	<input type="checkbox"/>	210kg	<input type="checkbox"/>
Wood for indoor fires (number of units)	<input style="width: 100%; height: 25px;" type="text"/>	Cubic m.	<input type="checkbox"/>	Cords	<input type="checkbox"/>	KG	<input type="checkbox"/>
Coal (Notes 9 & 10)	<input style="width: 100%; height: 25px;" type="text"/>	20kg bag	<input type="checkbox"/>	40 kg bag	<input type="checkbox"/>	Half tonne	<input type="checkbox"/>

### 2. Transport

(a) Enter the kms travelled annual for each category of car used by the household (Note 11):

Petrol	Diesel	Hybrid	Electric
<input style="width: 100%; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>	<input style="width: 100%; height: 25px;" type="text"/>

(b) Enter the number of short/commuter trips per annum on other services. A return trip counts as two trips, so a couple visiting Waiheke for the day will have done 4 ferry trips (Note 12).

Ferry	<input style="width: 100%; height: 30px;" type="text"/>
Bus	<input style="width: 100%; height: 30px;" type="text"/>
Train	<input style="width: 100%; height: 30px;" type="text"/>
Taxi	<input style="width: 100%; height: 30px;" type="text"/>

### 3. Travel

Enter the flights per annum and/or the days spent on a cruise. Aggregate for all members of the family e.g. a couple flying return to Australia = 4 flights

Domestic Travel: Enter the total number of trips for each mode of travel (Note 13)

Domestic flights	<input style="width: 100%; height: 30px;" type="text"/>
Bus	<input style="width: 100%; height: 30px;" type="text"/>
Inter-Island Ferry	<input style="width: 100%; height: 30px;" type="text"/>

## Emissions (Transport) continued

**International flights:** Enter the number of trips to each region (Note 14)

Australia / Pacific	<input type="text"/>	Asia	<input type="text"/>
North America	<input type="text"/>	Africa	<input type="text"/>
South America	<input type="text"/>	Europe	<input type="text"/>

**Cruises:** Enter the number of person-days spent on board e.g. a couple on a 10-day cruise = 20 person-days (Note 15)

Total number of person days

## 4. Waste

Enter the number of bins or bags for each category of waste, then enter the frequency of collection (in weeks) for example – every week = 1, every three weeks = 3

(a) Non-recyclable (Note 16)

Volume	Collection frequency
Standard Bag (65 Litre)	<input type="text"/>
Small Bin (120 Litre)	<input type="text"/>
Large Bin (240 Litre)	<input type="text"/>

(b) Recyclable (Note 17)

Volume	Collection frequency
Crate or Bag (55 Litre)	<input type="text"/>
Small Bin (120 Litre)	<input type="text"/>
Large Bin (240 Litre)	<input type="text"/>

(c) Green waste (Note 18)

Volume	Collection frequency
Crate or Bag (55 Litre)	<input type="text"/>
Small Bin (120 Litre)	<input type="text"/>
Large Bin (240 Litre)	<input type="text"/>

## 5. Diet

Enter the number of household members in each category (Note 19)

Omnivore (meat eaters)	<input type="text"/>
Vegetarian / Pescatarian	<input type="text"/>
Vegan	<input type="text"/>

**Notes:**

1. Most studies worldwide use the household as their basic unit, but others to work out their statistics on a 'per-capita' basis. By capturing the number of people in your household we can compare our results to those generated by either method.
2. We want communities around NZ to be able to compare their progress towards a more sustainable future. Your postcode will enable us to group you with others nearby to form a local community.
3. Formula: CO<sub>2</sub>e sequestered = #kg per sq.metre per annum. Source MFE
4. Formula: CO<sub>2</sub>e sequestered (Source:NZMFE) =
  - a. kg per small tree per annum
  - b. kg per medium tree per annum
  - c. kg per large tree per annum.
5. Formula: CO<sub>2</sub>e sequestered = (Source: NZMFE)
  - a. #kg per litre per annum (compost)
  - b. #kg per annum per Wormfarm
  - c. #kg per annum per Bokashi
6. Formula: Annual CO<sub>2</sub>e emitted =12 x (#kg per kWh used each month) Source -NZMFE
7. Formula: Annual CO<sub>2</sub>e emitted =12 x (#kg per kWh of gas burned each month) Source: NZMFE
8. Formula: CO<sub>2</sub>e emitted = #kg per kWh, where (Source: ELgas (NZ), NZMFE):
  - a. 45kg LPG cylinder yields 614kWh
  - b. 90kg LPG cylinder yields 1229kWh
  - c. 210kg LPG cylinder yields 2867kWh
9. Formula: CO<sub>2</sub>e emitted = #kg per kg of wood burned. Source: NZMFE
10. Formula: CO<sub>2</sub>e emitted = #kg per kg of coal burned. Source: NZMFE
11. Formula used: CO<sub>2</sub>e emitted = (Source: NZMFE)
  - a. #kg per km (petrol)
  - b. #kg per km (diesel)
  - c. #kg per km (hybrid)
  - d. #kg per km (electric)
12. These trips are all based on a 17km average commute, using the formula: CO<sub>2</sub>e emitted =
  - a. #kg per ferry trip
  - b. #kg per bus trip
  - c. #kg per train trip
  - d. #kg per taxi trip
13. Based on an average of all domestic travel; the formulas used are: CO<sub>2</sub>e emitted =
  - a. #kg per domestic flight
  - b. #kg per inter-city bus trip
  - c. #kg per inter-island ferry trip
14. Based on an average of all international flights to & from NZ; the formulae used are: CO<sub>2</sub>e emitted =
  - a. #kg per flight to Australia/Pacific
  - b. #kg per flight to North America
  - c. #kg per flight to South America
  - d. #kg per flight to Asia
  - e. #kg per flight to Africa
  - f. #kg per flight to Europe
15. This formula is based on an average of the fuel used per passenger by cruise ships visiting NZ: CO<sub>2</sub>e emitted = #kg per person per day aboard
16. Formula used: Annual CO<sub>2</sub>e emitted = #kg per litre of waste sent to landfill each year
17. Formula used: Annual CO<sub>2</sub>e emitted = #kg per litre of recycle waste created each year
18. Formula used: Annual CO<sub>2</sub>e emitted = #kg per litre of green waste created over a year
19. Formula: CO<sub>2</sub>e emitted = #kg per person per year

When you have completed the questionnaire please either email or post it to Carbon Neutral Trust – the addresses are at the top of the page. We will send your carbon calculations to you as soon as the form has been processed.