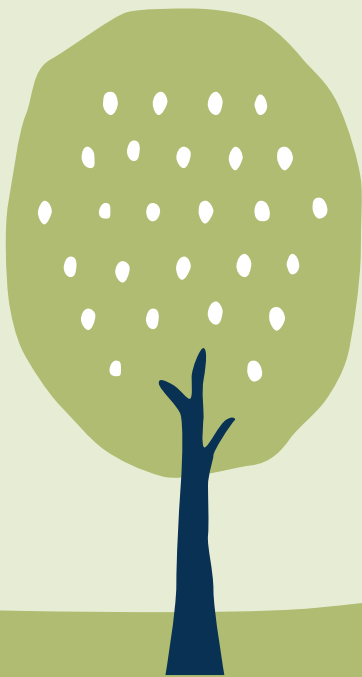


LOW-CARBON challenge



Three months of prayerful
action for our climate



anglican+
movement
DIOCESE OF WELLINGTON

GET YOUR TEAM READY!



We're going to shrink our carbon footprints,
and pray for our climate, between August and November.

Each team will choose one goal to reduce your contribution to climate change.

Will you ... make plans to carpool?

Wow your friends with a new vegetarian recipe?

Dust off your bike?

Plant a forest?

Or something else?

The challenge is also an invitation to pray. In November, leaders from around the world will meet at a United Nations conference to discuss the world's response to climate change. This meeting is a big deal! Our challenge runs up to that event. It's a good time to pray for climate action.

Before you start:

The challenge is for teams. We know it's more fun and easier to stay motivated when we team up with others. So we recommend forming a team of two or more people.

Please register your team at movementonline.org.nz/lowcarbon.

Let others inspire you. Join the Facebook group 'Low Carbon Challenge 2021' to see what other teams are up to, and share questions, stories or photos. Bragging is encouraged!



Discuss with your team:

What is your team name?

What motivated you to sign up for this challenge?

WHY DO A LOW CARBON CHALLENGE?



The Anglican Diocese of Wellington is leading this challenge because we know God cares about climate change. Our vision is for people to have a relationship with creation like God intended: where we celebrate and protect the natural world and live in a way that ensures there is enough for everyone, including future generations.

We know we're not there yet. But our response to climate change can be an act of love for our global neighbours and an act of worship to God.

The global picture is that we're in a 'fight for 1.5'. Average temperatures have already warmed 1 degree since preindustrial times and all the countries of the world have come together to try to keep warming to no more than 1.5 degrees. To do that, world experts say we need to nearly halve global emissions by 2030 (compared to 1990 levels), then drop them to 'net zero'¹ by 2050. Experts say that's doable by requires huge change.

We need all hands on deck. New Zealand needs to do its fair share, and so do individuals and communities.

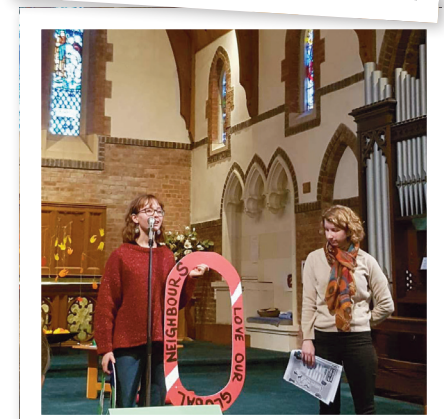
People of faith have an important role to play. At its heart, climate change is a spiritual problem. Gus Speth, an American scientist and adviser on climate change, said:

"I used to think that the top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that thirty years of good science could address these problems. I was wrong. The top environmental problems are selfishness, greed and apathy, and to deal with these we need a cultural and spiritual transformation. And we scientists don't know how to do that."

In the past, our church has taken action together by planting trees, moving our investments away from activities that cause climate change, and calling for new laws. One example was when we supported the call for a Zero Carbon Act and over 500 of us wrote submissions to government leaders. The government has now passed that law so our country is committed to reducing emissions to net zero by 2050.

But while we ask our leaders for change, we also need to change our own lifestyles - with God's help to overcome the spiritual barriers! Our efforts can be our act of love to God and a witness to others.

¹ Net zero means balancing emissions we produce with those we remove from the atmosphere through activities like planting trees.



WHAT IS A 'CARBON FOOTPRINT'?

An important starting point is to understand how we contribute to climate change. This is known as our 'carbon footprint' - the greenhouse gases that go into the atmosphere as a result of our lifestyles and choices.

Greenhouse gases include carbon dioxide, methane and nitrous oxide (among others). They come from things like:

- burning fossil fuels (coal, diesel, petrol and natural gas) for electricity, heating and transport
- nitrogen fertiliser used in food production
- livestock farming
- and from organics like food waste breaking down in landfill.

Our personal carbon footprint is made up of:



Churches and workplaces also have a carbon footprint that results from their activities. We can shrink our footprint by making different choices. We can also remove carbon dioxide from the air by planting trees.

NEW ZEALANDERS ARE BIG POLLUTERS

Our emissions are high per capita. According to Oxfam Aotearoa, the consumption of New Zealanders produces four times as much carbon emissions as the consumption of citizens of the Pacific Islands. In order to limit global warming to 1.5 degrees, the target per capita footprint is about 2 tonnes per year.

Average carbon footprint per person



Carbon footprints are measured in carbon dioxide equivalents (CO₂e). These take into consideration that different greenhouse gases have different impacts on global warming.

The data for this illustration is from Oxfam Aotearoa: www.oxfam.org.nz/news-media/media-releases/kiwis-carbon-footprint-13-times-that-of-poorest-half-of-worlds-population/. If you're wondering why this average New Zealander's footprint is higher than that on Futurefit, good spotting! This is more recent data and calculated slightly differently.

Discuss with your team:

Does the concept of 'carbon footprint' make sense to you?

What do you think about New Zealanders' impact compared to that of other countries?

GRACE NOT GUILT

When we think about our carbon footprint we often feel guilty. It's hard to make choices that care for the earth. Sometimes it's impossible because the circumstances we live in limit the ways we can care for the earth. For instance, I know people who want to drive their car less, but their town has no public transport, and no safe bike lanes!

In this challenge, we'll practise "grace not guilt". We encourage you to bring feelings of guilt or sadness to God, and remind ourselves:



We also need to take our worries to God. Climate change can make us feel afraid, anxious and overburdened. We encourage you to tell God about these feelings. We must also remember: we are partners with God. We need to play our part, and trust God to play God's part. We can only carry what is ours to carry.

Discuss:

What do you think of the phrase "Grace not guilt"? Is that helpful for you?

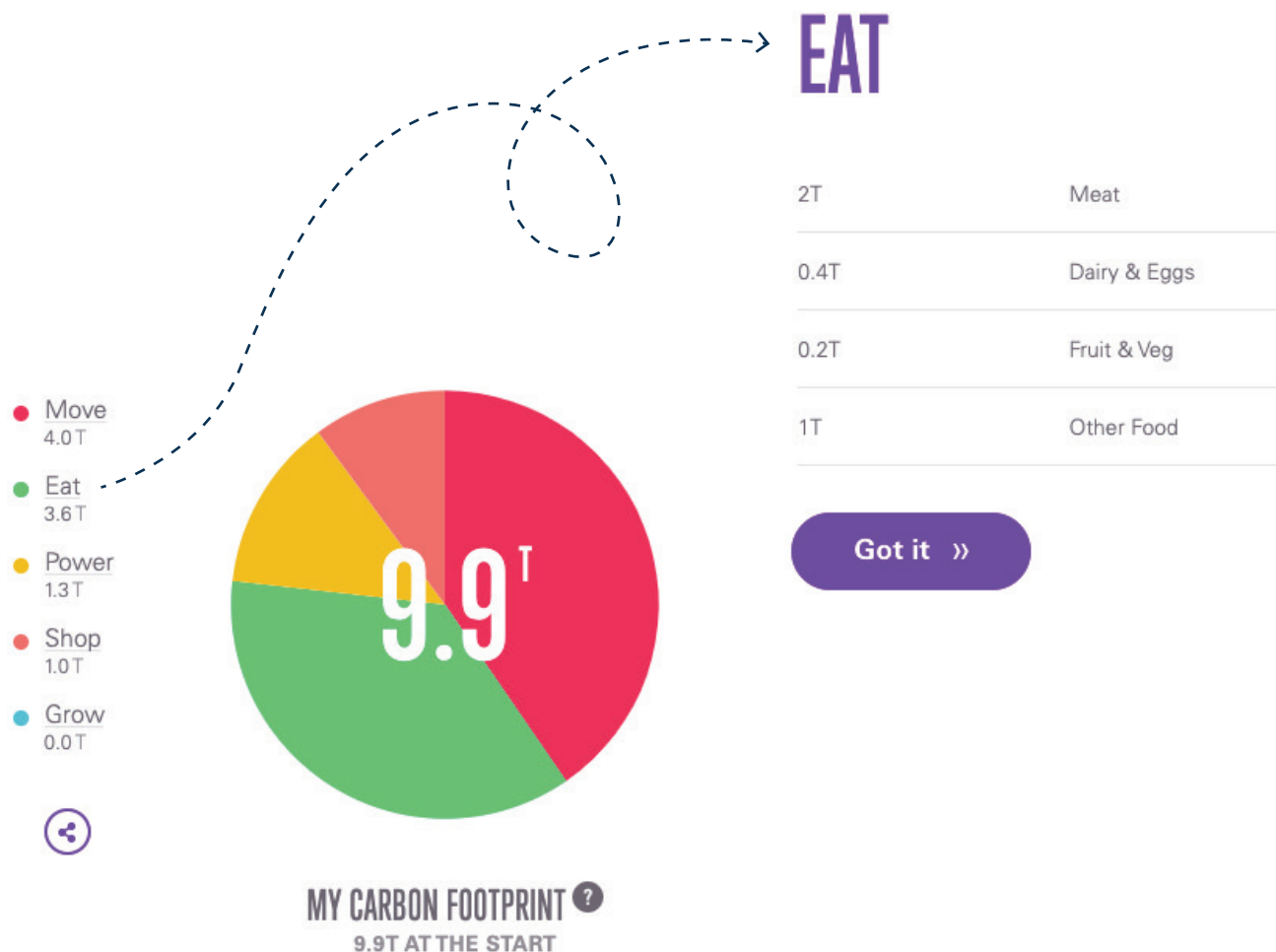
Are you worried about climate change? How can we take our worries to God?

IN YOUR CONTEXT. WHERE SHOULD YOU START?

It's important to note that each of our contexts is different. We might live in a rural town, far from shops and public transport. Our abilities to change our lifestyles are also vastly different. Not everyone can bus, bike or walk. Not everyone has spare time or money, or permission to make changes to their house, power company, or family menu. Not everyone is able to plant trees.

Remember - grace not guilt! We're each going to identify one change that is doable for us.

A good starting point is to estimate our own carbon footprint at www.futurefit.nz. Do the Futurefit survey now. What are the big contributors to your carbon footprint? Click on the words "Move, Eat, Power and Shop" to see a further breakdown.



Exercise:

Write down or draw the biggest contributors to your carbon footprint.

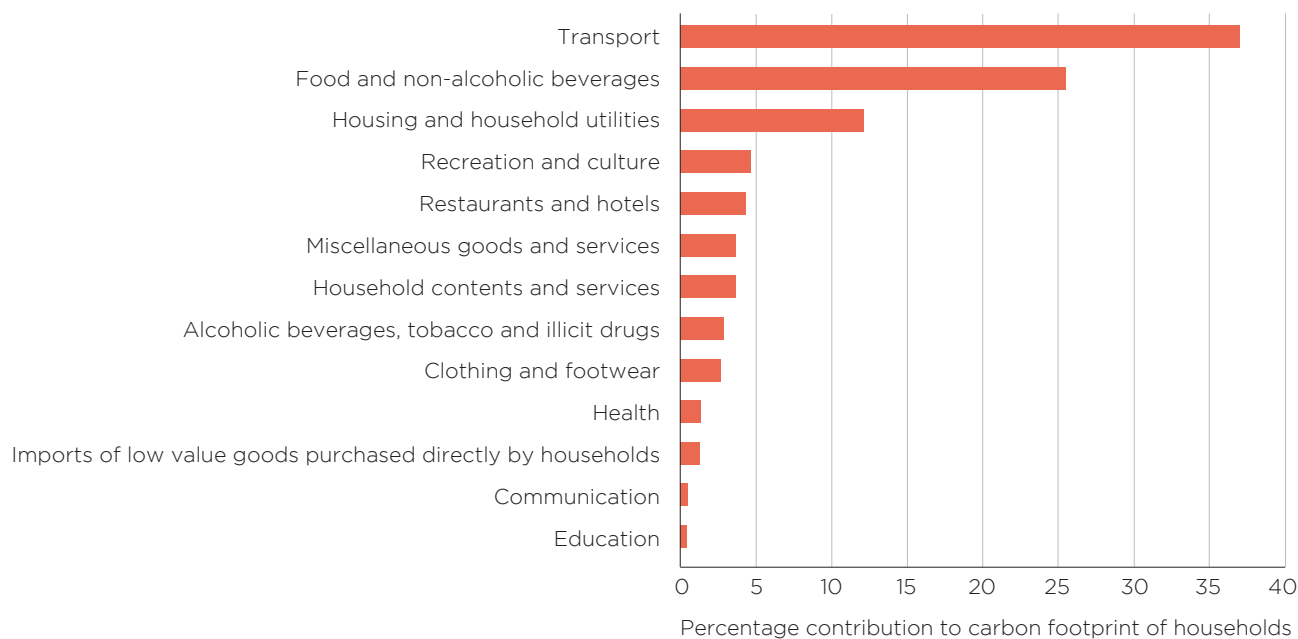


We could shrink this by taking these actions:

If you do not want to use Futurefit, consider the average footprint of a New Zealand household, based on 2017 data from Statistics New Zealand. Most greenhouse gases come from transport, especially flying and driving private cars. The second biggest contributor is our food, most from eating red meat. The third biggest contributor is housing and utilities, which includes our electricity and how we heat our homes.

Data from: www.stats.govt.nz/news/transport-drives-households-carbon-footprint-up

CARBON FOOTPRINT OF NEW ZEALAND HOUSEHOLDS, BY TYPE OF ITEM, 2017

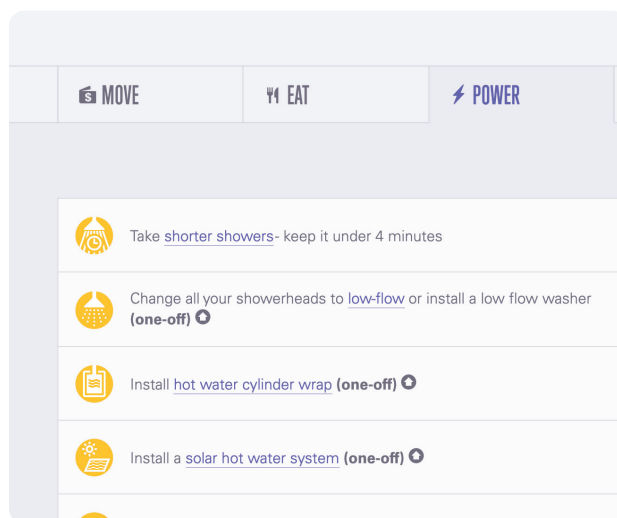


CHOOSING AN ACTION TO SHRINK OUR FOOTPRINT

For the 'average' New Zealander the following changes would make a big difference:

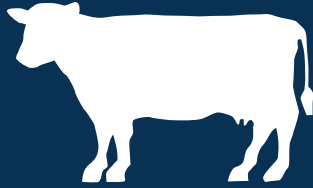
- Flying less
- Eating less red meat
- Driving less
- Choosing clean energy sources over coal or natural gas.

If you're on Futurefit, check out the possible actions tailored for you. Go to 'Dashboard' then clicking on 'Actions' on the left hand side. Futurefit suggests actions in helpful categories: Eat, Move, Power, Shop and Grow. Ask God – what area would you like me to change?



COMPARE THE IMPACT OF THESE ACTIONS.

All measurements are in kilograms of carbon dioxide equivalent. Data from Futurefit unless otherwise specified.



EAT

Replace all red meat for chicken or pork for one week

26kg saved

Have one meat free day

3kg saved

Have one dairy free day

0.7kg saved

The carbon cost of traveling to Wellington to Auckland by:

- Plane: **241kg**
- Medium size petrol car: **196kg**
- Bus: **35kg**
- Electric car: **21kg**



Data from calculator.toitu.co.nz/?calculator=travel



MOVE



Avoid one return flight Wellington to Auckland

241kg saved

Avoid driving 30 minutes in a medium sized petrol car

5kg saved

Take a bus instead of private car for a 30 minute journey

3kg saved

Carpool for a 30 minute journey instead of driving yourself

2.5kg saved

Data from calculator.toitu.co.nz/?calculator=travel

POWER

Avoid using the dryer for one load

› **0.16kg saved**

Change one high-use incandescent lightbulb to an LED²

› **9kg saved over one year**



MAKE YOUR HOME MORE ENERGY EFFICIENT

- Check your insulation is at least 12cm thick
- Change to a low-flow shower head
- Install lined curtains and draught excluders
- Put a wrap around your hot water cylinder to prevent heat loss.

= *Potentially huge savings!*

² Assuming a 60W bulb is replaced with 8W LED and used for 4 hours per day. (Emissions factor of electricity is 0.12kg Co₂/kWh and the difference in electricity consumption is 52W (0.052kW) for 1450 hours over one year.) See <https://environment.govt.nz/assets/Publications/Files/Measuring-Emissions-Detailed-Guide-2020.pdf>, www.eeca.govt.nz/about/news-and-corporate/news/free-energy-efficient-lightbulbs-for-tokoroa/.

GROW

Plant 1 tree = 270kg

removed from the atmosphere after the tree has stood for 40 years.



Plant 4 trees = ~1000kg

removed after 40 years.

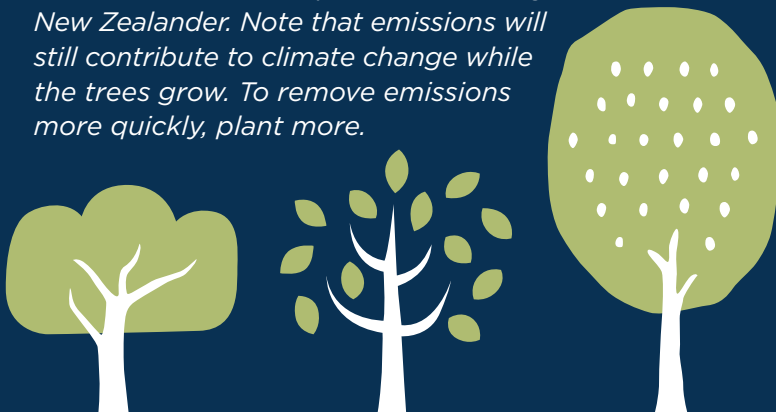
Plant 32 trees = ~8500kg

removed after 40 years.



From Tāne Tree Trust calculator:
www.tanestrees.org.nz/resources/carbon-calculator/

In other words, planting 32 trees every year would offset the carbon footprint of an average New Zealander. Note that emissions will still contribute to climate change while the trees grow. To remove emissions more quickly, plant more.



The carbon cost of traveling 25 kilometres (roughly a 30 minute car trip in the city) by:

- Medium size petrol car: **5kg**
- Hybrid car: **4kg**
- Motorbike: **3kg**
- City bus: **2kg**
- Train **<1kg**
- Electric car: **<1kg**
- Bike / walking: **<1kg**

Note: carpooling can reduce your emissions by half or more!

These estimates come from the Toitu Travel Calculator: calculator.toitu.co.nz/?calculator=travel.



SHOP



Buy only in-season, New Zealand-grown fruit & vegetables for one week

6.42kg saved

...

Avoid buying one new smartphone³

60-80kg saved

...

Avoid buying one new polyester t-shirt⁴

5.5kg saved

...

Avoid buying one new cotton t-shirt⁵

2.1kg saved

...

Avoid buying one takeaway coffee cup

0.06kg saved

³ <https://www.compareandrecycle.co.uk/blog/iphone-lifecycle-what-is-the-carbon-footprint-of-an-iphone>; <https://www.ericsson.com/en/reports-and-papers/research-papers/life-cycle-assessment-of-a-smartphone>.

⁴ www.bbc.com/future/article/20200310-sustainable-fashion-how-to-buy-clothes-good-for-the-climate

⁵ www.bbc.com/future/article/20200310-sustainable-fashion-how-to-buy-clothes-good-for-the-climate

CHOOSING A PRAYER COMMITMENT

Prayer is a powerful form of climate action! We encourage you to commit to praying for the climate, decision-makers, and affected communities and ecosystems.

Some ideas include:

- Pray for the climate whenever you wait at the bus stop; wash the vegetables; or collect the mail.
- Pray for decision-makers when you read relevant news.
- Go for a prayer walk through your neighbourhood or a natural area.
- Raise the topic of climate change during morning prayers or church intercessions.
- Organise a gathering specifically to pray about climate change.

With your team, ask God - how would you like us to pray?



Newlands-Paparangi Parish planted 5000 trees in collaboration with their community. Over forty years their efforts will absorb more than 1000 tonnes of carbon dioxide.

LOW CARBON CHALLENGE – TEAM GOALS

Team Name:

Contact person name, email and phone:

Location:

In which category (Eat, Move, Power, Shop, Grow) will you focus your goal?

By mid November, what is one realistic goal your team can achieve?

Remember to make your goal SMART - Specific Measurable Achievable Relevant Time-bound

What's the first step you can take? Second step? Third step?

1.

2.

3.

What will be your prayer commitment?

ie "We will pray for the climate whenever we're waiting at the bus stop" or

"When I'm struggling to find motivation to change my habits, I will ask God for help."

How will you keep track of your progress, triumphs and trials?

Suggestions: share photos in the facebook group (Low Carbon Challenge 2021)

and say yes to being paired with a mentor who can help you keep on track.

How will you remember "Grace not guilt"?

Would you like a mentor to check in with you to ask how you're going?

What is one question the mentor can ask you in one month's time to keep you accountable to your goal?

What questions do you have today to get you started?

On the bottom of this page, draw what it looks like when you have decreased your carbon footprint!

Important: Please take a photo of this section and email to advocate@anglicanmovement.nz so we can support you.

WHAT NOW?

- Send a photo of the above section to advocate@anglicanmovement.nz.
- Start working towards your goal!
- To stay on track:
 - Join the facebook group called “Low Carbon Challenge 2021” to encourage fellow teams
 - Check out the list of events at movementonline.org.nz/lowcarbon.
 - Your mentor will contact you.
- Got questions? Contact advocate@anglicanmovement.nz.

Want to go further?

Consider joining Eco Church, a comprehensive programme that supports churches to actively care for God’s earth as an integral part of their mission.

For more information contact amy.ross@arocha.org or visit www.ecochurch.org.nz.



Brooklyn Anglicans have opened an op-shop in their neighbourhood. Every item of clothing they sell keeps waste out of landfill and prevents someone needing to purchase an item new. That saves 2kg or more of carbon dioxide equivalent per piece!

FURTHER INFORMATION

How to talk to others about climate change

Your efforts to shrink your footprint might make others curious. Great! Here are some pointers when motivating others to take action on climate change.

- 1) Do not lead with facts and problems. Instead, give people a compelling vision of the future we're working towards.

"Imagine if New Zealand was powered entirely by clean energy! Our family is supporting that future now by buying electricity made from solar and wind generators."

"Our vision is for people to have a relationship with the natural world like God intended. For everyone to celebrate and protect the natural world, and to choose food, transport and energy options that mean there are enough resources for everyone, including future generations."

"My vision is for my family to learn to take only what we need, and be content. Imagine if we could live free from the clutter of unnecessary things and demands, so that we had more time to connect with God, each other and the natural world?"

- 2) Talk about the values driving what you do, such as compassion, love and responsibility.
- 3) Show that many people in their community are taking climate action.

"This year eight hundred Anglicans had their say on advice from the Climate Change Commission. Now hundreds of us are changing our lifestyles to care for the climate. Do you want to join us?"

- 4) Give hope that we can do this! Point to examples of people changing their lifestyles and finding solutions to climate change.

Since we started this challenge, I've discovered a new bus route, and it's easy, so I'm bussing to work now. I also read the exciting news that New Zealand's first electric truck hit the streets last week!

Read more at: www.oxfam.org.nz/wp-content/uploads/2019/07/How-to-talk-about-Climate-Change_The-Workshop-Oxfam-NZ-2019.pdf

Common questions

Question 1: It really worth changing our personal lifestyles? My impact feels so small and we need the government and companies to act. Shouldn't we campaign for political change instead?

We need to do both.

It's true that lifestyle change alone will not produce the drastic reductions in emissions that the world needs. We need change from industries and governments. That's why it's so important we join in advocacy movements calling for large-scale changes from governments. Members of our diocese have spoken up many times, and we'll keep providing these advocacy invitations. You can also find other opportunities for yourselves.

At the same time, our personal lifestyles do matter. Our choices can keep emissions out of the atmosphere. Our actions all add up. Our lifestyles motivate others - we show that climate change is a big deal, and something God cares about. And our efforts also give us authenticity when we call for political change.

So we need to join in advocacy movements and walk the talk.

Question 2: What about offsetting? Can't we just pay others to absorb the emissions we produce?

Offsetting means compensating for every tonne of CO₂ you emit. One way is paying other people to plant trees. Another is paying to support technology that helps other people reduce their emissions.

These types of actions are very helpful. But they are no replacement for stopping pollution in the first place. There are already too many greenhouse gases in the atmosphere. We must stop making more. Trees take time to grow and soak up carbon. And there is only so much land we can plant on - we can't offset our way out of climate change!

The short answer is: plant trees if you can, and support others to reduce emissions, but don't rely on offsetting. Do what you can to stop emissions at their source.

Question 3: Do I need to use a carbon calculator?

That's up to you. Some people find it helpful to put numbers to their carbon footprint, and to measure their progress. If that's you, check out Futurefit, Toitu, or others that use New Zealand data. A list is available here: www.ecochurch.org.nz/carbon-calculators. Other people find numbers a distraction and prefer to go ahead and make the changes they already know they can make.

Question 4: What actions are good for people on low incomes or with limited mobility?

It's true that many lifestyle changes require money or other resources, and they aren't possible for everyone. People on low incomes could consider:

- Borrowing instead of buying new
- Trying some vegetarian recipes
- Buying in-season fruit and vegetables
- Considering opportunities to carpool, walk or bike if you can
- Plan meals to avoid food waste.

People with limited mobility could consider actions in Eat, Power and Shop categories (see above). Of course, these actions do require time, and not everyone has that. If no actions feel doable for your context, pray for the climate and consider speaking up for political change.