Planetpro

NESTLÉ PROFESSIONAL SUSTAINABILITY MAGAZINE

CLIMATE CHANGE

How food service can contribute to the solution

Small changes, big payoff

Following the carbon footprint

The language of climate change

Nestlé PROFESSIONAL

REALITY CHECK

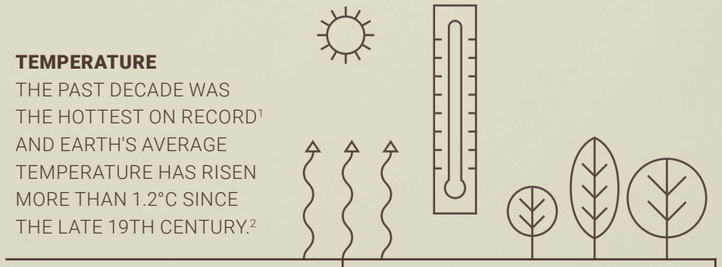
CLIMATE CHANGE IS ALREADY AT OUR DOOR

Climate change is one of the greatest challenges we face today. Evidence is all around us, from floods to droughts, hurricanes, wildfires, and landslides. While humans are the main contributor, we can be the driver of the solution too, because we have the power to change that trend. It is important for all of us to take action, because together we can make a difference.

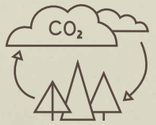
What does that mean for businesses like yours? It's important to know that consumers are paying attention to these issues, and they're more interested than ever in supporting sustainable practices that can reduce the effects of climate change.

As food service providers, that gives us two good reasons to get involved. First, as part of the human race, we care about our own health and that of the planet. And secondly, as business owners, we need to stay in sync with changing customer expectations in order to thrive. The good news is that while the food industry plays a large role in contributing to greenhouse gases, we have an equally large opportunity to help turn things around.

In this issue, we'll help you understand the depth and breadth of our role and responsibilities. From understanding key terms to identifying areas for improvement and simple steps you can take to shrink your carbon footprint, there's a lot we can do to secure a brighter future. There's no time like the present to begin.



TEMPERATURE
THE PAST DECADE WAS THE HOTTEST ON RECORD[1] AND EARTH'S AVERAGE TEMPERATURE HAS RISEN MORE THAN 1.2°C SINCE THE Llate 19TH CENTURY.[2]



GREENHOUSE GASES
CO_2 REACHED RECORD LEVELS IN 2020. BY 2100, LEVELS OF CO_2 WILL DOUBLE AGAIN—THE HIGHEST IN 55 MILLION YEARS.[1]

SEA LEVEL
LEVELS HAVE RISEN 21–24 CM SINCE 1880 AND SET A NEW RECORD HIGH IN 2020.[3] BY YEAR 2100, GLOBAL SEA LEVEL IS EXPECTED TO INCREASE BETWEEN 0.5 AND 1 METRES.[4]

1.5°C OF GLOBAL WARMING = INCREASED HEAT WAVES, LONGER WARM SEASONS, AND SHORTER COLD SEASONS.

2°C COULD CAUSE HEAT EXTREMES THAT THREATEN AGRICULTURE AND HUMAN HEALTH.[5]

SEVERE WEATHER
70% OF THE 405 EXTREME WEATHER EVENTS EVER RECORDED WORLDWIDE WERE FOUND TO BE MADE MORE SEVERE BY HUMAN-CAUSED CLIMATE CHANGE.[6]

EXTINCTION
OVER 25,000 SPECIES—ALMOST A THIRD OF THOSE KNOWN—ARE IN DANGER OF DISAPPEARING AND CLIMATE CHANGE WILL BE RESPONSIBLE FOR 8% OF THESE.[7]

"Stabilizing the climate will require strong, rapid, and sustained reductions in greenhouse gas emissions, and reaching net zero CO_2 emissions."

— IPCC Report

changing VIEWS

With climate change in the news and visible all around us, it's becoming top of mind for many consumers. The concern is shared by many age groups and increasingly important to younger people who will soon be the majority of your customers.

While many people are already making changes in their own lives to help the planet, more and more of them now expect the businesses they support to take action as well. That includes restaurants and the service industry.

Today's guests are looking for sustainable businesses, welcoming low-carbon-footprint menus, and in many cases, paying more to support sustainable restaurant practices.

What's more, eating out of home is no longer just an occasional treat. It's becoming a larger part of the way people eat around the globe. That means our industry has an even greater responsibility to change—and a wonderful opportunity to help reduce our carbon footprint.

CONSUMER ATTITUDES

80% AGE 25-34

63% AGE 65+

AUSTRALIANS SUPPORT TARGETS FOR NET ZERO EMISSIONS[8]

93%

OF NEW ZEALANDERS BELIEVE THAT WASTE AND RECYCLING IS AN IMPORTANT ENVIRONMENTAL ISSUE[9]

37%

OF AUSTRALIANS CONSUMERS SEEK OUT COMPANIES THAT TAKE ACTION TO OFFSET THEIR ENVIRONMENTAL IMPACT[10]

47%

OF NEW ZEALANDERS SAY THEY CARE ABOUT SUSTAINABILITY WHEN CHOOSING A BRAND/PRODUCT TO PURCHASE[11]

FOOD SERVICE INDUSTRY

61%

OF FOOD WASTE BY NEW ZEALAND CAFES AND RESTAURANTS IS AVOIDABLE[12]

60%

OF BIN WASTE OF AN AVERAGE CAFÉ OR RESTAURANT IN AUSTRALIA IS FOOD WASTE[13]

46%

OF AUSTRALIANS PREFER DINING AT ENVIRONMENTALLY FRIENDLY RESTAURANTS[14]

ONE THIRD

OF AUSTRALIA'S YEARLY FOOD WASTE COMES FROM THE FOOD RETAIL AND HOSPITALITY INDUSTRY[15]

12%

OF ALL FOOD WASTE IN NEW ZEALAND IS CREATED BY THE HOSPITALITY AND FOOD SERVICE SECTOR[16]

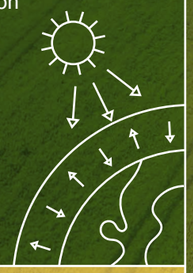
the language of CLIMATE CHANGE

A GLOSSARY OF TERMS

Everybody's talking about climate change. And if you want to join the conversation, it's important that you know and understand the vocabulary too. Being familiar with these terms can help you make better decisions when it comes to running your company. It will also give you the knowledge you need to share what you learn and answer questions from your staff and customers.

GREENHOUSE GASES (GHGs)

Greenhouse gases are substances in the atmosphere that trap heat close to Earth's surface, causing the greenhouse effect. The primary GHGs are water vapour, carbon dioxide, nitrous oxide, methane, and ozone.[17]



CARBON DIOXIDE

This gas occurs naturally and as a by-product of burning fossil fuels and biomass, land use, and other industrial processes.[17] It is the main human-caused greenhouse gas.[18]

CLIMATE CHANGE

Any change in the climate that persists for an extended period. It can be caused by natural processes, forces like solar cycles or volcanic eruptions, or human activity that changes the composition of the atmosphere.[17]

GLOBAL WARMING

The estimated increase in global mean surface temperature averaged over a 30-year period, compared to pre-industrial levels.[17]

CARBON NEUTRAL

A product that has a carbon footprint of zero or that has been offset. To be carbon neutral, all GHG emissions from all stages of a product's life cycle must be reduced, removed, or accounted for through a system of offsets or credits.[19]

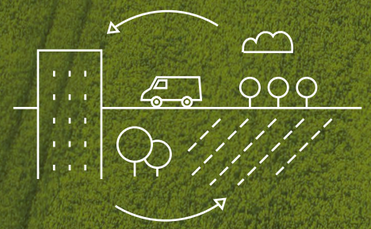
NET ZERO EMISSIONS

Corporate targets that align with societal climate change goals by:

1. Reducing value chain emissions to meet guidelines for limiting global temperature increases to 1.5˚C, and
2. Neutralising the impact of any residual emissions by permanently removing an equal amount of CO_2 by volume.[20]

THE PARIS AGREEMENT

The Paris Agreement is an international treaty on climate change adopted by 196 parties in 2015. Its goal is to limit global warming to 2° C (and preferably 1.5° C) compared to pre-industrial levels.[21]



LINEAR ECONOMY

This take-make-waste model uses natural resources to make products that are thrown away at the end of its life, wasting those materials instead of finding new uses for them.[22]

CIRCULAR ECONOMY

An economy that is regenerative by design and aims to gradually decouple growth from the consumption of finite resources. It's based on three principles: eliminate waste and pollution, circulate products and materials and regenerate nature.[22]

CARBON FOOTPRINT

The total amount of GHG emissions of both processes and products,[16] emitted by a person, family, building, organization, or company each year.[18]

LIFECYCLE ASSESSMENT (LCA)

Compilation and evaluation of the inputs, outputs and potential environmental impacts of a product, service or system throughout its life cycle, from raw materials extraction to end-of-life.[23]

REGENERATIVE AGRICULTURE

An approach to farming that aims to conserve and restore farmland and its ecosystem. It contributes to drawing down carbon dioxide from the atmosphere and reducing emissions of GHGs and it helps deliver benefits to farmers, environment and society.[24]

CARBON REDUCTION

Any practice that reduces carbon emissions.

CARBON REMOVAL (CARBON INSETTING)

This process absorbs CO_2 from the atmosphere and stores it somewhere else, such as trees, soil, or underground storage all along the supply chain.[17, 25]

CARBON CREDITS (CARBON OFFSETTING)

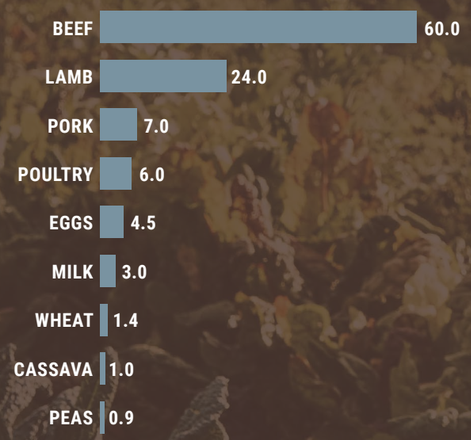
A mechanism to compensate for the carbon footprint of a product by preventing the release of, reducing, or removing an equivalent amount of GHG emissions in a process outside the boundary of the product throughout its life cycle.[16] Companies and individuals can balance unavoidable emissions by buying carbon credits from certified activities.[25]

the food industry's
IMPACT

Let's zoom in for a better understanding of our industry's role and responsibilities. By identifying the depth and breadth of our impact on climate change, we can target the most effective ways to reduce our carbon footprint and help the planet. The good news is that if we pull together, our industry has the power to make a meaningful change.

GHG EMISSIONS PER KILOGRAM OF FOOD PRODUCT[27, 28]

KG CO_2-EQUIVALENTS PER KG PRODUCT



Calculated emissions may vary by source. Check the sources cited above for the GHG emissions of other food products, and watch for more information about sustainable healthy diets in the next issue of *Nutripro*®

DID YOU KNOW?

The GHG emissions coming from food losses and waste are 3 times the global emissions from aviation.[26]

66%
NON-FOOD EMISSIONS

34%*
OF ALL EMISSIONS COME FROM FOOD SYSTEM[23]

POST-RETAIL
(CONSUMERS) 12% OF FOOD EMISSIONS

INCLUDES
- Food preparation (refrigeration and cooking)
- Food waste

SUPPLY CHAIN
17% OF FOOD EMISSIONS

INCLUDES
- Food processing
- Packaging
- Transport
- Retail

AGRICULTURAL PRODUCTION
39% OF FOOD EMISSIONS

INCLUDES
- Emissions from synthetic fertilizers and its production
- Methane from cattle's digestion
- Methane from rice
- Manure
- Fuel use on-farm machinery
- Aquaculture

LAND USE
32% OF FOOD EMISSIONS

INCLUDES
- Deforestation
- Cultivated soils
- Drainage and burning of soils

* While the cited source specifies 34% of GHGs are linked to food, IPCC estimates food system emissions between 21-37% of total net anthropogenic GHG emissions.

Life CYCLE

From farmers' fields to the table and beyond, every choice along the way impacts the carbon footprint of food and beverages.

INGREDIENTS

Food comes from many plants, animals and minerals, and their carbon footprints vary widely. While our industry needs to balance these concerns with nutritious diets and guest satisfaction, we should be aware of how much our choices can contribute to or help reduce our carbon footprint. Opting for more plant-based proteins and moving toward regenerative agriculture practices are two effective ways to help reduce greenhouse gas emissions.

Pulses require about 20 times less land & generate 20 times less GHGs than beef (per gram of protein consumed).[29]

WASTE

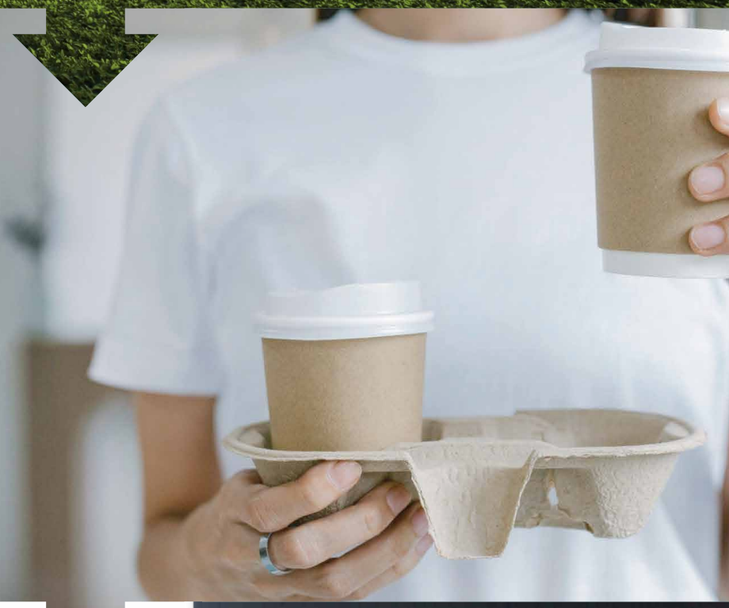
This is a surprisingly large contributor to GHG emissions due to the unnecessary emissions generated by waste involved in food production. While some of this waste comes from grocery stores and consumers, our industry adds to it substantially, so we owe it to the world to reduce our waste. See *Planetpro № 1* for additional ideas.

Australian cafes and restaurants throw away nearly a quarter (23%) of the food they buy for their business.[30]

PACKAGING AND MANUFACTURING

All parts of the life cycle need to be taken into account when determining your carbon footprint. For example, GHGs can be created by factories that process the ingredients or products you use, and emissions are also released during the production of cans, bottles, and other packaging—including the take-out containers you use.

Watch for an in-depth exploration of how we can shift toward a more circular economy in the next edition of *Planetpro*.



STORAGE AND PREPARATION

Freezing, cooling, cooking, baking…and don't forget the constant ventilation! One look at your utility bills will reveal how much energy your business uses every day. Understanding the impact of these processes is a great incentive for following the energy-saving tips on the next page.

TRANSPORTATION

Moving ingredients is a significant part of our industry's carbon footprint. Transporting them great distances across land or sea burns fossil fuels which create emissions, and even local delivery to your customers creates GHGs.

small changes

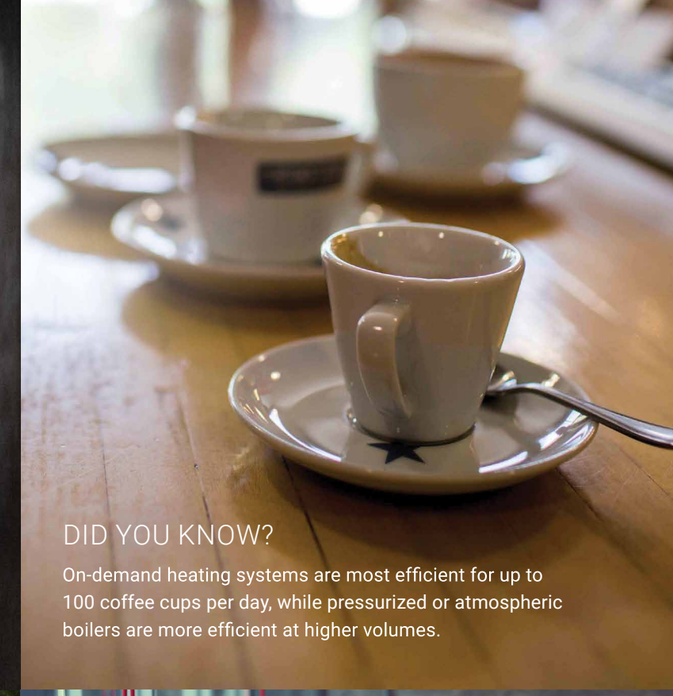
BIG PAYOFF

Simple shifts you can make today

Like many people facing up to the realities of climate change, you're probably ready to take action! But you may be wondering what practical steps you can take to make the most impact. Let's take a look at all the opportunities you have to work toward Net Zero Emissions. Remember, these changes aren't just good for the planet; they can help you save valuable time and money too.

Evolve Your Menu

Offer at least one vegetarian or vegan option.	**Offer a range of portion sizes on the menu to prevent food waste.**
Use plant-based dairy alternatives, and offer them as an option for coffee drinks and other beverages. A half oat/ half dairy latte is a great place to start.	**Try Meatless Monday promotions to attract more customers with meat alternatives.**



DID YOU KNOW?

On-demand heating systems are most efficient for up to 100 coffee cups per day, while pressurized or atmospheric boilers are more efficient at higher volumes.

ASSESS YOUR ENERGY USE

- Keep refrigerators and freezers away from stovetops and ovens.
- Choose energy efficient and/or long-lasting equipment that can be remanufactured or recycled.
- Take advantage of natural window lighting to save electricity and use energy-efficient lighting.
- Use dishwashing machines to be more efficient with time and water, and run in eco mode.

MAKE YOUR CAFÉ MORE EFFICIENT

To save energy, match coffee machine sizes and heating systems to the numbers of cups served per day.	**Save energy by using a kettle or instant heating machine to heat only the amount of water you need.**
Put the espresso machine on "standby mode" or switch it off at the end of the day.	**If you have multiple orders for espresso-based beverages, prepare them at the same time instead of one by one.**

OPTIMIZE STORAGE & PREP

- To prevent food waste, plan menus carefully, buy only what you need, and prepare perishable foods soon after shopping.
- Plan your time and cooking temperature so you can cook more than one recipe at a time. Using lids on pans will help retain heat too!
- When boiling, choose smaller pots so the food cooks more quickly while saving water. You can also reuse hot water for another recipe if it's clean.
- Store and label ingredients so you can use food according to perishable dates.
- Set up bins for composting and recycling.

TEAM UP WITH YOUR VENDORS

- Get to know the footprints of foods, and when choosing ingredients, focus on responsible sourcing.
- Seek and use more ingredients with low carbon footprints, and reduce higher-footprint ingredients.
- Partner with local vendors for some of your seasonal produce.
- Find vendors who follow more sustainable practices, especially for high carbon footprint foods like meat.
- Choose products with recycled or recyclable packaging and ask vendors to minimize packaging when possible.

DON'T FORGET THE DINING ROOM

- Use serving materials that are reusable and recyclable and stop offering single-use plastic containers.
- Provide ice in beverages only on request.
- Provide a range of portion sizes on your menu. If needed, offer to send remaining food home with guests instead of throwing it away.
- Let guests choose their own sauces and side dishes to reduce waste.
- Consider partnering with an app like Too Good to Go that proposes to consumers to buy unused food at a discount.
- Try a deposit scheme to encourage returns of reusable or recyclable to-go containers.

SPREAD THE *word*

Speaking up about sustainability

Remember, when you're making these changes, everyone wants to hear about them! Climate change is a problem that affects all of us, so any steps you take toward a more sustainable way of life and work deserve to be made known. Here are some tips for communicating your changes to everyone connected with your business.

Vendors:

"We're in this together."

- Ask suppliers what they're doing to fight climate change.
- Make your preference for more sustainable ingredients, packaging, and transportation known.
- Talk about how you can partner to help each other reach your sustainability goals.
- Offer your food scraps as compost to nourish your vendors' crops.

Customers:

"We share your goals."

- Remember that consumers are looking for businesses that prioritize sustainability.
- Make official commitments or goals about sustainability, measuring where you are today, what numbers you want to reach, and when you want to reach them.
- Share your commitments on indoor & outdoor signage, menus, and social media.
- Publicize your efforts and results, backing them up with measurable data if possible.
- Always check local regulations before making sustainability claims, as every country has its own regulations.

Staff:

"We are working to make a difference."

- Talk to your staff about why sustainable practices matter and tell them what you're doing.
- Help everyone on staff understand how they can play a role to create a better planet.
- Equip your wait staff to answer questions that guests may have about your practices.
- Encourage your staff to offer suggestions if they think of a more sustainable way to do something.

Sources

1. BBC, The State of the Climate in 2021
2. NASA, 2020 Tied for Warmest Year on Record
3. NOAA, Climate Change: Global Sea Level, Dec 2021
4. Grantham Institute, Sea Level Change, 2020
5. The Intergovernmental Panel on Climate Change (IPCC) Report, 2020
6. Carbon Brief, How climate change affects extreme weather around the world, 2021
7. Iberdrola, Climate change is accelerating the sixth extinction
8. Climate of the Nation, Australia Institute, 2020
9. Eunomia, Waste Disposal Levy Research, 2017 (https://eunomia.co.nz/waste-disposal-levy-research/)
10. Kantar, Australia Sustainability Market Study, 2020
11. In Good Company Report, Perceptive, Porter Novelli and Sustainable Business Council, 2019
12. WasteMINZ, (https://www.wasteminz.org.nz/wp-content/uploads/2018/10/New-Zealand-cafe-and-resturant-food-waste-WasteMINZ-2018.pdf)
13. EPA (unpub). 'Final Report and Attachments: Industry Specific Data Analysis of Bin Trim Round 1, 2016' Environmental Protection Authority Sydney
14. OpenTable Sustainably Dining Report, 2017
15. https://www.ozharvest.org/food-waste-facts/
16. MDPI (https://www.mdpi.com/2071-1050/12/16/6507)
17. The IPCC Glossary, 2018
18. United States Environmental Protection Agency (EPA), Glossary of Clinate Change Terms, 2017
19. ISO 14021:2016, Environmental labels and declarations
20. Science Based Targets, The SBTi Net-Zero Manual & Criteria, 2021
21. United Nations, The Paris Agreement, 2015
22. Ellen Macarthur Foundation, What is a circular economy?, 2020
23. ISO 14040:2006, Environmental management
24. Nestlé, Regenerative Agriculture, 2021
25. Southpole, Insetting: the Full-circle Sustainable Solution for Supply Chains; Carbon Offsets Explained, 2011
26. Our world in data, How much of global greenhouse gas emissions come from food?; Emissions by sector, 2019
27. Visual Capitalist, The Carbon Footprint of the Food Supply Chain, 2020
28. Poore, J., & Nemecek, T. (2018), Reducing food's environmental impacts through producers and consumers
29. Ranganathan et al. (2016), Shifting Diets for a Sustainable Food Future
30. RMIT University Watch My Waste, research project into food waste in the foodservice sector 2016

A Brighter Future

The challenges are mighty, but we'll achieve more if we all work together, partnering with people both upstream and downstream to take significant actions on the way to reduce greenhouse gas emissions and contribute positively to climate change.

Stay tuned for future issues of Planetpro where we'll share more information about how we can take better care of the planet, including our next edition on packaging and sustainability.

Planetpro Issues

No Time to Waste
The Restaurant's Role in Reducing Trash

Climate Change
How food service can contribute to the solution

Coming soon

Packaging and Sustainability

Nestlé Professional
Nestec S.A.
Avenue Nestlé 55
CH-1800 Vevey
Switzerland

www.nestleprofessional.com

Printed on 100% recycled paper
Blue Angel Certified

Contact planetpro@nestle.com for further information.

Editorial Team:
Ana Isabel Aragón, Anna Tudela, Alessandro Bottazzi, Jordi Baeza, Neil Morrissey, Christos Sotiros Alain Contal, Emmanuel Lorieux,
Creative Direction: Mr & Mrs
Copy: Karin Lannon
Photography: Yolanda Gonzalez, Nestlé Professional