



FOOD FOR BIODIVERSITY

A research-based report looking at consumer understanding of biodiversity and the impact of grocery shopping decisions



INTRODUCTION



LET'S REBUILD OUR WORLD

Now is the time for the industry to act. The loss of biodiversity is staggering. It's one of the biggest crises our and future generations are facing. Current industrial agricultural and food systems are largely to blame, which, as our research shows, is not known by many UK consumers.

We need to all make positive changes that will restore and enhance the natural world. At Ecotone, we are determined to promote and enhance biodiversity by choosing an alternative path. We offer organic and vegetarian products developed with agro-ecological practices that sometimes go beyond organic certification.

We want to challenge conventions and shake up the food industry for the better. We believe we can make a difference, but we need others to join us. Let's break the chain and rebuild our world.

Christophe Barnouin,
CEO, Ecotone Group



THE FOOD INDUSTRY MUST ACT NOW

This report and the research that forms its foundation should serve as a wakeup call for the food industry. Seventy nine per cent of people in the UK are now concerned, very concerned or extremely concerned about the negative impact our species is having on the planet and its biodiversity.

Yet, alarmingly, far fewer people associate accelerating global biodiversity loss with its biggest cause: producing enough food to feed the 7.7 billion people on Earth. Just 5% of the people we polled say food production or intensive farming gives them most cause for environmental concern.



“We need to do more to address the most pressing, yet somehow intangible, problems associated with modern food production”

It's easy to see why. Images of rivers of plastic flowing through communities or sea creatures choking on plastic have, rightly, been burnt into our consciousness by filmmakers and campaigners. It stands to reason that the all-too-visible problem of plastic pollution causes most public concern.

The industry is making moves to tackle the issue. We've removed all plastic from jars of Whole Earth Peanut Butter and Clipper Tea was to create fully biodegradable, heat-sealed teabags which are fast becoming the industry standard, for example.

But we need to do more to address the most pressing, yet somehow intangible, problems associated with modern food production. Put simply, food requires land; land that's also needed by Earth's dazzling diversity of plant and animal life.

Our research makes it clear that consumers grasp the severity of the crisis we're facing – more than two thirds agree that preserving biodiversity is essential for the survival of humankind, even if far fewer understand what biodiversity actually is – but they expect guidance from the government, NGOs, supermarkets and food manufacturers to help them understand how they can make a difference.

This is where retailers and their suppliers need to step up. We must clearly communicate how the adoption of more sustainable means of cultivation can allow vast tracts of the planet's most biodiverse and valuable land to be left for nature in the tropics, whilst safeguarding the livelihoods of indigenous farmers.

Our supply chains must be made transparent, allowing shoppers to make informed choices about what they put in their baskets. As an industry, we must promote understanding about the benefits of certain crops and means of production – such as organic, which is still not widely understood in the UK – and be brave in challenging misconceptions that persist.

Biodiversity is a complex issue that is not always black and white. It is our industry's duty to make these complex, at times abstract issues tangible and easy to digest, cement the links between food and the environment in shoppers' minds and guide them to making more sustainable choices when they are shopping.

The good news is that things are changing. In the US, Joe Biden is getting behind environmental issues, as are governments in Europe and elsewhere. In the UK, organic is significantly outgrowing conventional food & drink. Our research not only shows that a huge and growing proportion of people are concerned about the environment; it reveals a groundswell of concern among the young.

This means that the importance of the environment is only to grow in shoppers' minds. It's up to us to help them make more sustainable choices. This report, the first of its kind by Ecotone UK, provides plenty of food for thought for retailers and their suppliers about how they can build a better future for *all* life on this planet, whilst sustainably feeding humankind. Enjoy.

Emma Vass, CEO, Ecotone UK

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Research managed by Customer IQ (formerly known as Profundo), building on a previous report from 2019 Online survey among 2,009 UK shoppers aged 18+ 'Shopper' defined as someone who is fully or partly involved in the deciding which groceries are bought in the household Fieldwork ran from 19 to 25 March 2021

Earth's bountiful and beguiling biodiversity is in decline as a direct result of the food humanity needs.





SHIFTING PRIORITIES: SUSTAINABILITY IS FASTEST GROWING PURCHASE CONSIDERATION

“Synthetic studies in the past two to three years have looked at the driving factors of biodiversity loss. One of two things comes up top in every one of those analyses: agriculture or unsustainable hunting and fishing, which includes fisheries in the sea”

**Neil Burgess,
Chief Scientist,
UNEP-WCMC**

The world is in crisis. More than a million plant and animal species are under threat of extinction.¹ Food is fuelling this crisis. To produce the food that the nearly 8 billion people on earth need requires land. Lots of it; half the planet’s habitable land, some 51 million km,² is now farmland.³ Earth’s bountiful and beguiling biodiversity is in decline as a direct result of the food humanity needs.

“Synthetic studies in the past two to three years have looked at the driving factors of biodiversity loss. One of two things comes up top in every one of those analyses: agriculture or unsustainable hunting and fishing, which includes fisheries in the sea,” says Neil Burgess, Chief Scientist at the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC).

“In the West, supermarkets are a powerful force. They’re trying to reduce the impact of each basket of food, in terms of carbon emissions, water use and biodiversity loss. But there is a critical gap: you can’t work out the impact of a product if you don’t know precisely where it came from. For example, soybeans might be grown in newly cleared rainforest in Brazil, put into an aggregator, shipped in a big container to Rotterdam, put in a bag, fed to a chicken in Southern England and then put on your plate and you would be none the wiser.”

If our food is the root of the extinction crisis, addressing the problems with how it is produced, packaged and distributed can help solve the problem. Better food choices can help refuel biodiversity. Sustainable increases in crop yields, reductions in waste, cutting consumption of

meat and animal products, promoting barrier-free trade in agricultural goods, restoring degraded land and protecting and managing biodiverse habitats more effectively have been identified as the steps required to avert the crisis.

Consumers, food manufacturers and retailers have a crucial part to play in all this. And UK shoppers are waking up to this fact. Our research shows that how sustainable food & drink is (or isn’t) has seen the greatest increase of any purchase consideration since 2019.

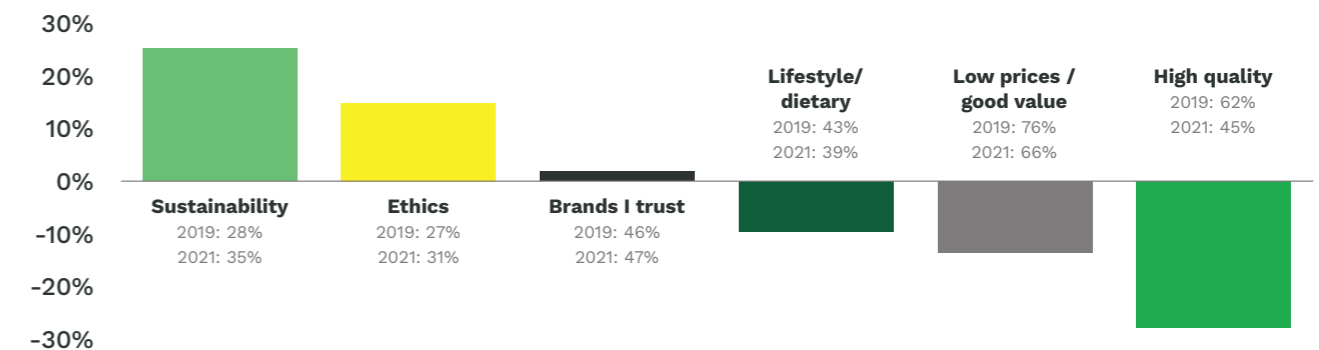
35%
of consumers say sustainability is an important consideration for them when buying groceries.

Thirty five per cent of consumers, some 12.5 million people, say sustainability is an important consideration for them when buying groceries. That’s a 25% increase since 2019 (see figure 1.1).⁴

As we’ll explore in Chapter 4, how important consumers consider sustainability issues to be when they’re deciding what to put in their shopping baskets depends on a range of factors. Waitrose shoppers, for example, are 34% more likely than Asda shoppers to view sustainability as important. What is clear is that there is a general lack of understanding of what impact our food choices are having on the planet and the biodiversity it contains.

Sustainability sees greatest leap in importance for shoppers

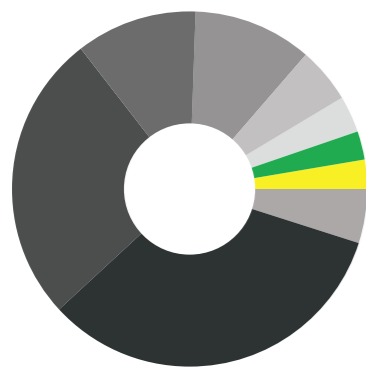
Figure 1.1



¹ <https://www.unep-wcmc.org/news/strategy-for-halting-and-reversing-biodiversity-loss-revealed>
² <https://ourworldindata.org/global-land-for-agriculture>
³ <https://www.unep-wcmc.org/news/strategy-for-halting-and-reversing-biodiversity-loss-revealed>
⁴ Ecotone UK – Poll of a demographically representative panel of 2009 consumers, 22 – 25 March 2021

Despite the fact that numerous scientific studies have identified farming, hunting and fishing as having the greatest impact on biodiversity around the world, food production is not on most people's radars when it comes to weighing up humanity's most environmentally damaging activities. Just 2% of people say food production gives them most cause for environmental concern; just 3% say intensive farming is their number one concern. That compares to one in three who say they are most concerned by plastic pollution (see figure 1.2), making this the top concern in the UK.

Which human activity gives shoppers most/least cause for environmental concern?



- Plastic pollution
- Deforestation
- Fossil fuel use
- Food waste
- Urbanisation
- Aviation/transport
- Intensive farming
- Food production
- Other

Figure 1.2

Of course, these activities, and how concerned people are about them, are interlinked. After all, 42% of the world's plastic is used as packaging,⁵ the lion's share of that as single-use food & drink containers.⁶ That's for good reason: plastic protects food and prevents it from spoiling and so helps prevent food waste, which happens to be the third most pressing environmental concern (jointly, with fossil fuel use, at 11%). That deforestation is most concerning for 26% of consumers, making it the second biggest concern, is significant: beef farming, soy and oil palm cultivation are the three biggest drivers of tropical forest loss,⁷ so are a major driver of biodiversity loss too.

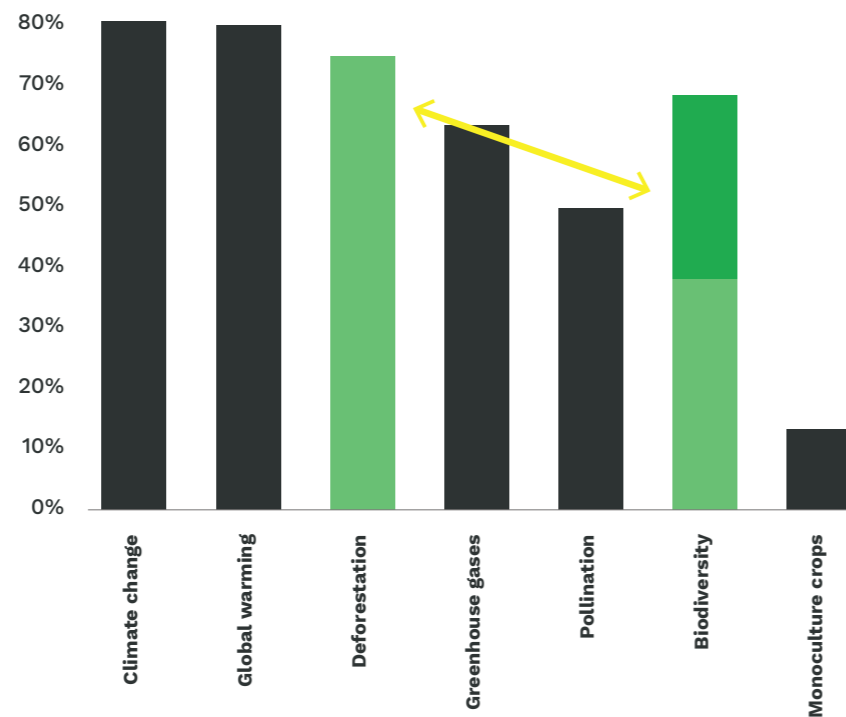
“There are many cultural and ethical arguments for conserving biodiversity; it's also true that biodiversity performs many important functions for us as a species... Biodiversity has a utility for humanity that we get for free”

Prof Jane Hill, Research Champion for Environmental Sustainability & Resilience, University of York

That nearly two thirds of people say they don't understand the meaning of the term biodiversity is not surprising. But, significantly, nearly twice the number of people who say they understand what biodiversity is (38%) agree with the statement that it is essential for survival of humankind (68%). So, the majority of consumers have an understanding of its importance even if they don't understand why (see figure 1.3). For the record, biodiversity is the amount of variety in plant and animal life in the world or a particular habitat. But why is it so important?

Which terms do shoppers they feel they understand?

Figure 1.3



38% of people understand the meaning of biodiversity, yet 68% agree it is 'essential for the future of humankind'. Deforestation is a 'proxy' for biodiversity

⁵ <https://ourworldindata.org/plastic-pollution>

⁶ <https://advances.sciencemag.org/content/3/7/e1700782>

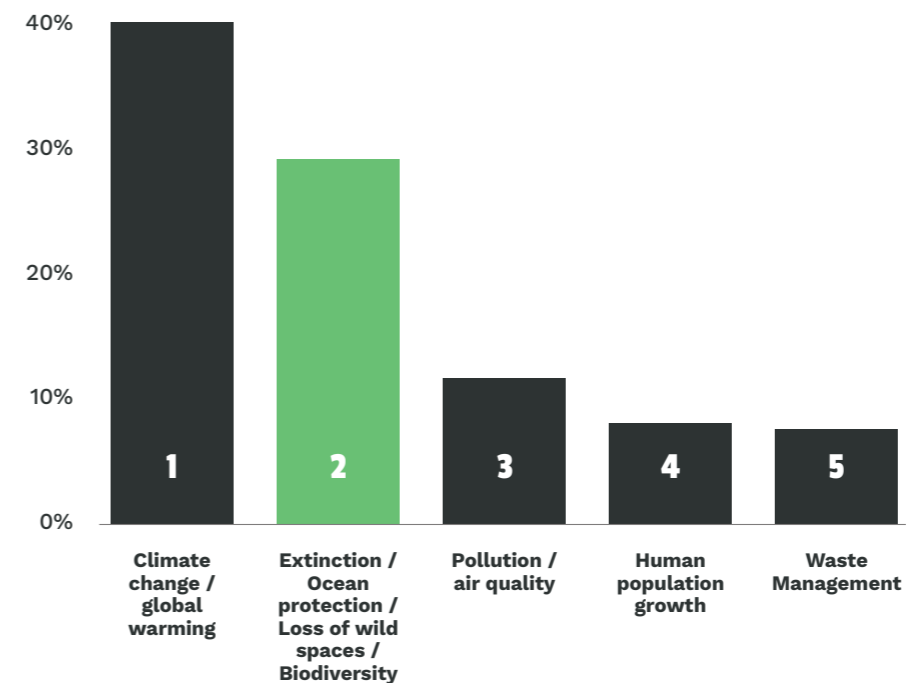
⁷ <https://www.worldwildlife.org/magazine/issues/summer-2018/articles/what-are-the-biggest-drivers-of-tropical-deforestation>

“There are many cultural and ethical arguments for conserving biodiversity; it's also true that biodiversity performs many important functions for us as a species,” says Professor Jane Hill, Research Champion for Environmental Sustainability & Resilience at the University of York. “Insects pollinate our fruit trees and many other crops. Maintaining high yields so the land can feed us requires high quality soil; biodiversity is crucial in nutrient cycling and decomposition and all of those things that maintain healthy soil. It's crucial for seed dispersal and maintaining healthy ecosystems, which in turn gives us benefits. Biodiversity has a utility for humanity that we get for free.”

We squander it at our peril. But, in spite of the threat to the planet's biodiversity and the apparent lack of understanding that exists, there is cause for optimism. After all, 12.5 million people are now considering the environmental impact of what they are putting in their shopping baskets. What's more, many of the issues consumers say are more important to them can be seen as shorthand for *biodiversity*. *Extinction, protection of the oceans and loss of wild spaces* are arguably more tangible expressions of the same underlying concept. Combine these and the issue of biodiversity gains significance (see figure 1.4).

Which environmental issues cause consumers most concern?

Figure 1.4



“If the public are worried about deforestation and they are worried about extinction... then it suggests these issues are becoming more visible and are starting to ripple through to consumers, the political landscape and companies. But there is still a lot of work to be done to raise awareness about how consumption habits are driving biodiversity loss”

Jonathan Green, Senior Researcher at the Stockholm Environment Institute



“To some extent, it does sound like progress is being made because deforestation can be seen as a quite effective, albeit crude, proxy for biodiversity globally,” says Jonathan Green, Senior Researcher at the Stockholm Environment Institute. “If the public are worried about deforestation and they are worried about extinction, which has been picked up as a communication tool with the idea that ‘extinction is forever’, then it suggests these issues are becoming more visible and are starting to ripple through to consumers, the political landscape and companies. But there is still a lot of work to be done to raise awareness about how consumption habits are driving biodiversity loss”

This is where retailers and food manufacturers have a duty to try to cement the missing links in consumer understanding between the food we eat and the extinction crisis. Indeed, this is exactly what many consumers expect from us: 38% say they expect supermarkets to guide them on making more sustainable and ethical shopping choices and 28% expect such guidance from grocery brands.

Question is: how does our research suggest we should do that?



WHY THERE'S A BUZZ AROUND ORGANIC FOOD

As we've seen, sustainability is front of mind for a growing number of people as they shop for food & drink. Seventy nine per cent of consumers are either concerned (25%), very concerned (29%) or extremely concerned (25%) about the impact humans are having on the planet. Forty per cent of shoppers – some 14.3 million people – now consider themselves to be 'sustainable' and/or 'ethical' shoppers. This is reflected at the tills in a variety of ways.

Set against a grocery market that saw value sales surge by 8% in 2020⁸ – largely as a result of the closure of Britain's pubs and restaurants in response to Covid-19 – sales of dairy alternatives spiked by 19.3% in 2020,⁹ partly as a result of growing consumer awareness of the toll dairy production is having on the planet. More mature markets are also outgrowing the grocery market, by virtue of their green credentials.

Sales of milk alternatives surged by 21.5% in 2020, with oat-based milks up by a staggering 92.2%.¹⁰ Growing understanding of oats' relatively dainty environmental footprint is a factor in all this. An influential 2018 study¹¹ found that the production of one litre of oat-based milk requires 0.8m² of land compared to the 9m² of land required to produce a litre of dairy milk. Forty eight litres of water are required for the production of a litre of oat milk, which results in 0.9kg of CO₂ or equivalent being emitted. Cow's milk requires 628 litres of water per litre of milk and results in 3kg of CO₂ or equivalent being emitted.

“Organic is better for wildlife – that is proven. Organic farms have 50% more plant insects and birdlife and 30% more species of wildlife. You will get up to seven times more bees in an organic grain field. And for every 10% increase in bee-friendly habitats like what you will find at an organic farm, bee numbers and diversity are increased by over a third”

**Clare McDermott,
Business Development Director, The Soil Association**

UK sales of organic food & drink are also booming, having surged 12.6% to £2.8bn in 2020. That marks the ninth consecutive year of growth for the market and is equal to an average weekly spend of £50m.¹² “Organic was growing anyway because there was more interest in sustainable choices, personal health of and the health of the planet, but that's been hugely amplified by the pandemic,” says Clare McDermott, Business Development Director at the food and farming charity and organic certification body, The Soil Association.

“At the beginning of the pandemic you might have thought the growth in organic was just because it was the last thing standing on shelf but that wasn't the case. On an annualised basis, it's still outperforming non-organic groceries and still up on March 2020. People are more aware of the fragility of their own health and much more aware of the impact their choices have on the planet. The other big thing that's helped organic is growing availability in the supermarkets, which have increased their ranges – 67% of sales now go through the supermarkets.”



⁸ The Grocer Top Products 2020 – Nielsen 52 w/e 28 November 2020

⁹ Kantar 52 w/e 6 September 2020

¹⁰ Kantar 52 w/e 6 September 2020

¹¹ https://www.researchgate.net/publication/325532198_Reducing_food's_environmental_impacts_through_producers_and_consumers

¹² Soil Association Organic 2021 Market Report – Nielsen GB Total Market Read 52 w/e 2 January 2021

There's certainly plenty to suggest that shoppers have become more mindful. Fourteen per cent of the people we polled – equivalent to 5 million shoppers – told us that they had started buying or were buying more organic products since the start of the pandemic. Amongst those who define themselves as committed sustainable and/or ethical shoppers the percentage is far higher (37%). Younger consumers are also more likely to be buying more or have started buying organic, suggesting the sector has longer term growth potential.

Shopper motivations are clear. Twenty eight per cent perceive organic to be better for the environment, making this the greatest perceived benefit of organic (see figure 2.1). The next two most cited benefits of organic are its natural credentials (21%) and that it helps protect biodiversity (18%). This suggests that the organic sector has already had some success in communicating its green credentials; continuing to do so should help attract the growing number of committed sustainable shoppers.

The environmental benefits are real. "Organic is better for wildlife – that is proven," says McDermott. "Organic farms have 50% more plant insects and birdlife and 30% more species of wildlife. You will get up to seven times more bees in an organic grain field. And for every 10% increase in bee-friendly habitats like what you will find at an organic farm, bee numbers and diversity are increased by over a third."

Therein lies an opportunity. When asked about what species they are most concerned about losing, 72% of consumers chose bees and other pollinating insects, the top answer. That makes the humble bee an obvious ambassador for organic brands or retailers that can demonstrate success in protecting biodiversity and conserving species of bees and other pollinating insects.

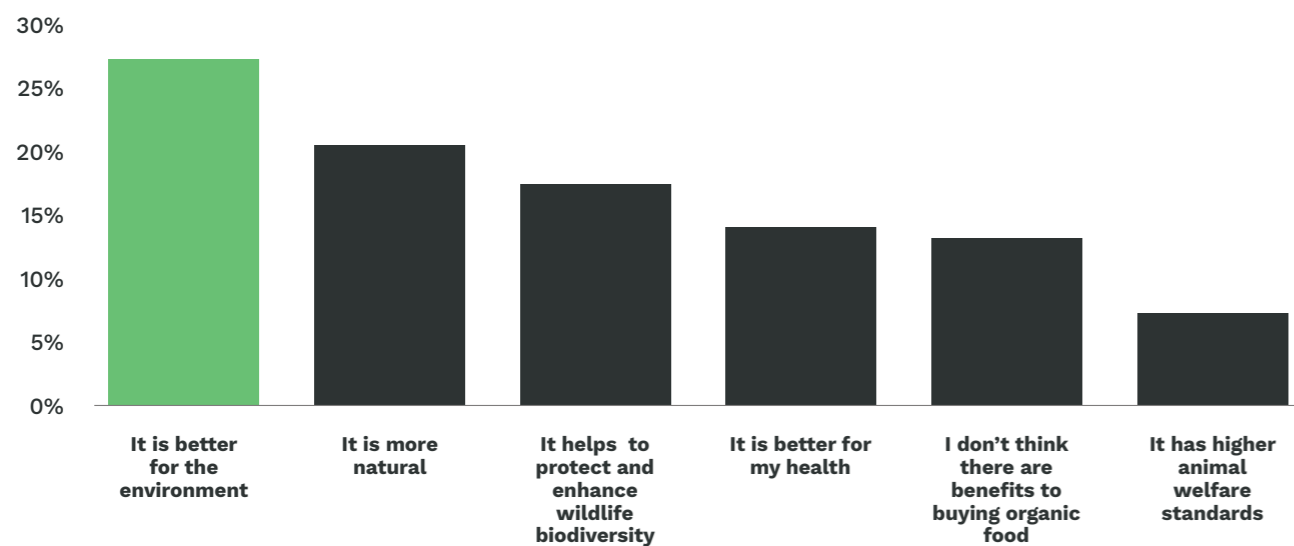


Organic agriculture is sometimes said to be at the 'sharing' end of the 'land sharing/sparing' spectrum, because land used for the cultivation of crops is shared with other species and encouraged by setting adjacent land aside to provide habitat for them. At the 'sparing' end is intensive farmland producing high crop yields at the expense of biodiversity. To compensate for a lack of biodiversity on intensively cultivated land, natural habitats elsewhere are spared from cultivation in order to protect diversity of animal and plant species there (see chapter 3).

Both approaches have their advantages and disadvantages: producing food for humankind while protecting biodiversity can impact productivity and therefore require more land; intensively farming certain areas can jeopardise the long-term future of specific species that have adapted to live there. "The sparing or sharing debate is often not very helpful – it's more complicated than that and often it's about operating somewhere on the spectrum somewhere between the two," says Prof Hill at the University of York.

What do shoppers perceive the benefits of organic food & drink to be?

Figure 2.1

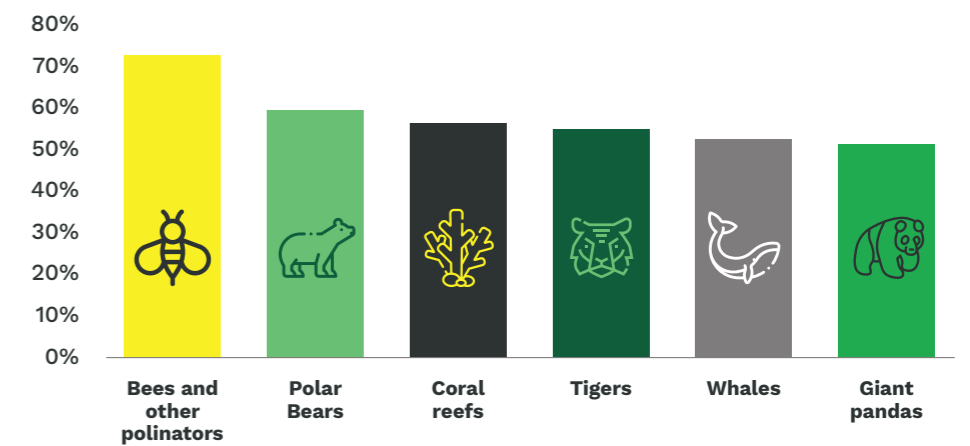


"People perceive places like the Yorkshire Dales to be 'natural' landscapes because they have biodiversity in them but actually it's an agricultural landscape that also produces food for us"

Prof Jane Hill, Research Champion for Environmental Sustainability & Resilience, University of York

Which species are consumers most concerned about losing?

Figure 2.2



"If you take the tropical system, then most of the evidence is that land sparing works best because most rainforest species can't persist unless they're in rainforest. A lot of the agri-enviro schemes in Europe follow a land sharing approach because they recognise that people live within those landscapes and want to experience biodiversity within them while they produce food for them. People perceive places like the Yorkshire Dales as 'natural' landscapes because they have biodiversity in them but actually it's an agricultural landscape that produces food for us."

So, it's good to share. As we'll explore in chapter 3, it's also crucial that we learn to spare too.

From bats to bison: how organic can pay in unexpected ways

For India's tea farmers, going organic pays in unexpected ways. Since one of Clipper's organic tea estates in West Bengal went organic in 2015, its workforce hasn't had a single case of malaria.

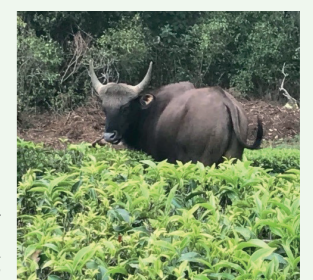
That's partly down to the local bats. Organic certification means the use of herbicides and most fungicides and insecticides are banned. This has allowed the estate's creepy crawly residents to thrive, creating an abundance of food for its resident bats. As the insect population grew, so did the number of bats, keeping them in check.

Bats also happen to be partial to mosquitos and will eat 4,000 a day. Fewer mosquitos mean fewer mosquito bites and a far lower malarial risk. It's win:win - except perhaps for the mosquitos - and a great example of how nurturing biodiversity can have tangible benefits for humanity.



Hundreds of miles to the south in the hills of Tamil Nadu, another organic Clipper Tea supplier takes regular special deliveries from a 70-strong herd of wild bison that are allowed to roam the estate. Their dung helps fertilise its rich soils.

Organic certification means the use of nitrogen fertilisers, which can devastate local eco-systems by contaminating water courses and causing algal blooms, is banned. Farmers welcome the local bison onto their land while rotating crops and planting legumes such as peas and beans, which are able to fix nitrogen from the atmosphere into the soil.



Occasionally, bison can attract feline attention. Tiger and leopard have been spotted, proving that going organic can even help nurture some of the most charismatic and magical species on earth.



UNCOMFORTABLE TRUTHS IN A TRANSPARENT AGE

Strange but true: there are more than 6,000 crops known to humankind, yet just nine of these (sugar cane, sugar beet, maize, rice, wheat, cassava, oil palm fruit, soya beans and potatoes) account for 70% of the calories humanity consumes today.¹³ This lack of diversity in our diets puts us in a precarious position, making us less resilient to pests and diseases in our food supply chain and ultimately, contributing to a lack of diversity in nature.

“It’s generally true to say that most of our calories come from just a few crops. Many of those are strongly implicated in deforestation. If you are removing natural habitat rich in biodiversity and replacing it with a single crop, then you will have a negative impact on biodiversity”

**Neil Burgess, Chief Scientist,
UNEP-WCMC**

“It’s generally true to say that most of our calories come from just a few crops,” says Burgess at UNEP-WCMC. “Many of those are strongly implicated in deforestation. If you are removing natural habitat rich in biodiversity and replacing it with a single crop, then you will have a negative impact on biodiversity. If you have a more diverse landscape, then you have species attacking other species and not one is allowed to dominate, so you will not need to cover it in so many pesticides. There will be natural predators of the things that might hit your crop in that area, so the chances of having a catastrophic wipe out of all of your maize or whatever, is lower.”

In terms of their immediate impact on biodiversity, it’s not the crops themselves that are the problem; it’s a combination, primarily, of the methods used to grow them, how much land they require and how many species are typically removed in order to efficiently farm them. One crop stands out in terms of how many calories can be squeezed out of the land used to cultivate it and, ironically, how maligned and misunderstood it is by consumers in the West: *Elaeis Guineensis*, or oil palm.

¹³ https://wwf.panda.org/discover/our_focus/food_practice/sustainable_diets/
¹⁴ <https://www.slideshare.net/GreenPalmOil/vegetable-oil-yields-per-ha-per-year>



“The oil palm is an amazing crop because it has such high yields,” says Prof Hill at the University of York. “The human race loves food with oils and fats in it, so if we’re going to be eating a lot of food like that then palm oil makes a huge amount of sense because, per unit area of land, it produces six times the yield of oils than, say, oilseed rape in the UK. So, if you if you stop eating palm oil, you’re going to have to rely on other areas of the world being converted to oil crops.”

The problem with oil palm – a native of West Africa chiefly cultivated in Southeast Asia after being brought there by the British – is that it will only grow in the tropics, which also happens to be the world’s most biodiverse region. So, it’s a Catch 22 situation: half of all products in the supermarkets are said to contain palm oil because of its desirable properties and the fact that it can be produced cheaply and in abundance, but it must be grown on some of most biodiverse land on the planet.

There’s no getting away from the fact that conventional oil palm cultivation has contributed to the loss of huge swathes of precious rainforest in Indonesia and Malaysia, the world’s two biggest palm oil producers and home to the last vestiges of some of the planet’s most charismatic species, such as orangutan, clouded leopard, rhino, elephant and (in the case of Indonesia) tiger.

Palm oil produces **six times** the yield of oilseed rape

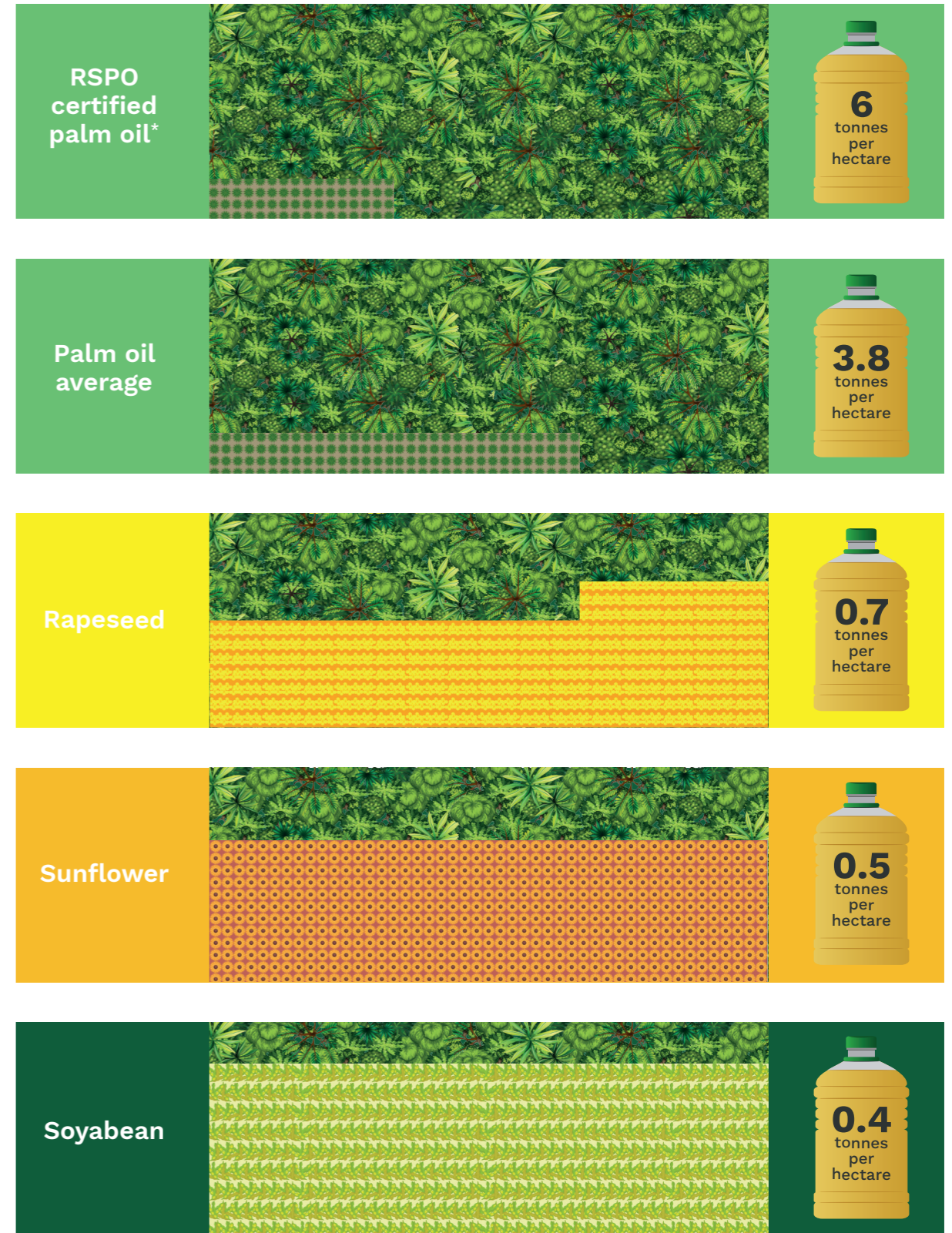
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Sliding scale: which oil crops require most land?

Figure 3.1



Note: Graph compares oil yields per hectare of the four most commonly cultivated vegetable oil crops¹⁴ * RSPO states that certified palm oil producers have achieved yields of ‘more than’ 6 tonnes/hectare – this figure does not represent the average for RSPO certified palm oil

Our research reveals that consumers in the UK have a grasp of the issues surrounding palm oil, even if they do not fully understand them. Fifty one per cent say it's the crop that gives them most cause for concern (see Figure 3.2), 50% think it is the greatest cause of deforestation (Figure 3.3) and 33% say they actively try to avoid products containing palm oil.

But academics and charities set up to protect the species the palm oil industry is accused of driving to the point of extinction say boycotting the crop is not the answer. "If you boycott palm oil or if every major consumer goods manufacturer and retailer in the UK boycotts palm oil, how will that help?" says Helen Buckland, Director of the Sumatran Orangutan Society (SOS).

"Is it actually going to help orangutans? The fact is, if the bottom dropped out of palm oil, smallholder farmers and the big agribusiness companies aren't just going to turn around and get jobs in banks. They're going to switch to different crops which are far less efficient and therefore require far more land to be cultivated. What's the alternative for people who are making a living out of palm oil? People so often don't ask what the alternative is. A boycott is a blunt tool that won't achieve the outcomes many people want to achieve. It's far better to ensure that what palm oil we do use is sustainably produced."

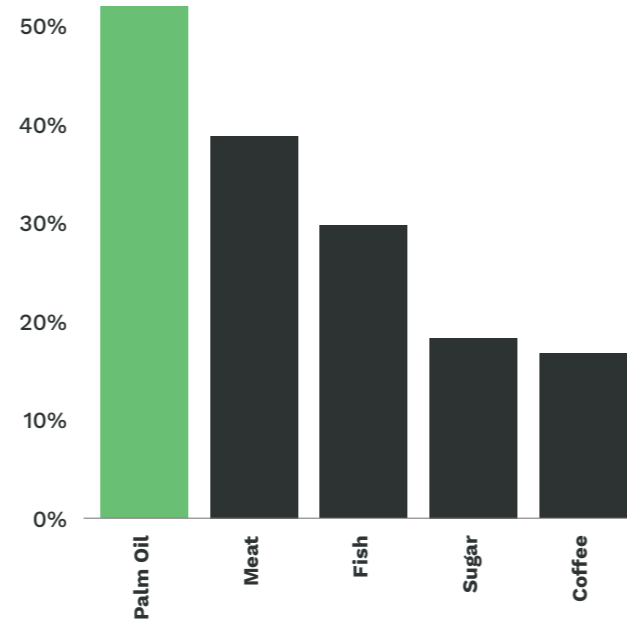
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Helen Buckland, Director, Sumatran Orangutan Society



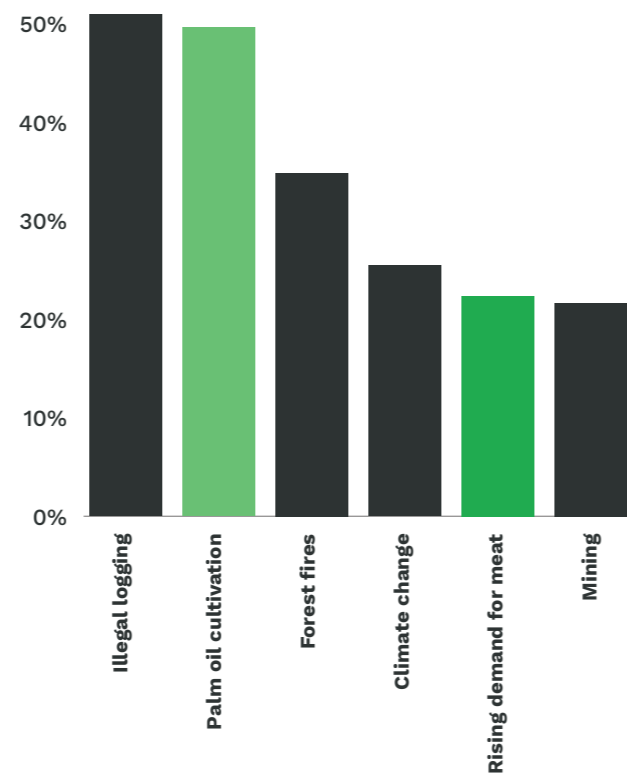
Which crops cause most concern?

Figure 3.2



What do consumers think are the greatest causes of deforestation?

Figure 3.3



"Soya animal feed is a much greater cause of tropical forest loss than oil palm. So actually, if you're concerned about conserving tropical forests, the first thing you should do is stop eating meat"

Prof Jane Hill, Research Champion for Environmental Sustainability & Resilience, University of York



Globally, 19% of palm oil is now RSPO certified.¹

Ultimately, *sustainable* oil palm cultivation helps protect orangutans and the incredibly biodiverse habitats in which they live and can help safeguard their survival. Producers of any product containing palm oil certified by the Roundtable for Sustainable Palm Oil (RSPO) can guarantee that they are not using oil that has been produced on deforested land or peatland. What's more, the RSPO works with farmers to increase productivity (see Figure 3.1) and ensure workers are treated fairly. Globally, 19% of palm oil is now RSPO certified.¹⁵

That number needs to grow and efforts to inform consumers of the facts need to step up. Indeed, some producers are achieving yields far greater than the six tonnes per hectare that the RSPO says is typical of its certified farmers. RSPO-certified Daabon (see p16), which organically cultivates oil palms from almost 10,000 hectares in Colombia, says it has achieved yields of 24 tonnes per hectare by closely monitoring the health of its soil, using composted organic matter to retain nutrients and water and maintaining biodiversity to encourage natural pest control.

Clearly, more needs to be done to promote understanding of the issues. "Soya animal feed is a much greater cause of tropical forest loss than oil palm," says Prof Hill. "So actually, if you're concerned about conserving tropical

"Supermarkets are under pressure from NGOs and investors because the investment community is asking them to take these issues more seriously... 10 years ago there wasn't anything like the remote sensing or data science that can be thrown up today to try to understand the problem. So, yeah, I think I think progress is being made"

Chris West, Deputy Centre Director (Research), SEI York

forests, the first thing you should do is stop eating meat that is being imported. And you should also stop eating meat that is being fed on soya that is imported from places where tropical deforestation is taking place to grow the feed. The more vegetables and the less meat in our diets, the better."

The food industry has a crucial role to play in addressing this. Producers and retailers also need to be more transparent about their supply chains. Certification schemes by the RSPO and other organisations such as Rainforest Alliance and the Soil Association (which also guarantee that certified ingredients are not grown on deforested land) can help in providing that clarity.

The need for supermarkets and their suppliers to ensure they are doing everything they can to make more sustainable choices – both from an ethical and a reputational point of view – has never been greater. "They're under pressure from NGOs and investors because the investment community is asking them to take these issues more seriously," says Chris West, Deputy Centre Director (Research) at the Stockholm Environment Institute (SEI) at the University of York. "From the conversations I have with business, they're also under pressure internally from employees. Ten years ago, there wasn't anything like the remote sensing or data science that could be thrown up trying to understand the problem. So, yeah, I think progress is being made."

Such technology is creating greater clarity, which will help bridge the gaps in consumer understanding that our research has identified. It could even help a term as abstract as *biodiversity*, and its relationship with how and where the food that fuels humanity is produced, become more widely understood. Supply chain clarity is key if this is to become reality. Indeed, our research shows that 26% of shoppers, some 9.2 million people, consider how transparent a manufacturer is about a product's ingredients before buying. We expect that number to grow.

¹⁵ <https://rspo.org/about#about-sustainable-palm-oil>

IF IT'S GOOD TO SHARE, IT'S CRUCIAL TO SPARE



Whole Earth has pledged to plant **20,000** trees

It seems a cruel irony: oil palms are one of the most prolific crops known to man, but they only grow in the most ecologically precious places on earth. "Those two things are linked," explains Prof Hall. "The tropics have the climate and the rainfall. That means life does well there, whether it's wildlife biodiversity or the crops we eat."

That's why it's essential that cultivated land in earth's invaluable equatorial regions are managed properly so that the output of every hectare is maximised while ensuring that enough land is spared to ensure biodiversity is maintained. That means protecting virgin rainforest through certification schemes run by bodies such as the Rainforest Alliance and the RSPO, while restoring degraded land into biodiverse habitats for threatened species.

Whole Earth Peanut Butter is playing a role in this, having pledged to plant 20,000 trees in Leaser Ecosystem in Sumatra, the only place in the world where orangutans, tigers, elephants, and rhinos all live together. In December 2020 the brand teamed up with the Sumatran Orangutan Society (SOS) for an on-pack and digital campaign to support reforestation in Sumatra.

The #MakeTheRainforestWhole partnership is part of Whole Earth's continued commitment to put the planet first, protecting and restoring ecosystems that support the Earth's biodiversity. By planting thousands of trees on behalf of its customers at the charity's 'Forever Forest' reforestation site, Whole Earth will be restoring a vital rainforest ecosystem, benefitting wildlife, climate, and communities.



The partnership will also feature expanded website and social content, raising awareness of the charity's work to protect and restore forests and highlighting ways that people can get involved. "It's incredible to see how quickly a forest grows in Sumatra - within just a few years, Whole Earth and its customers will have created a new home for wild orangutans," says SOS Director Helen Buckland.

"One of the biggest issues facing orangutans' survival in the wild is the fragmentation of their habitat, so support for our reforestation program is vital in helping us ensure that Sumatra's orangutans - and countless other species which live alongside them - have a future. The bigger picture, of course, is that rainforests like the ones we find in Sumatra have a major role to play in regulating the Earth's climate and rainfall, so by planting 20,000 trees, Whole Earth's impact will also be felt far beyond Sumatra."



SPOTLIGHT ON ORGANIC PALM OIL PRODUCER, DAABON



Whole Earth's Organic peanut butter uses a small amount of fully sustainable palm oil from an Identity Preserved (IP) source. This means it is uniquely identifiable to a single RSPO certified mill - DAABON - and its certified supply base.

Based in Santa Marta, Colombia, DAABON was the first organic palm oil company to be certified by the Rainforest Alliance and RSPO in Latin America. It is a leader in the production and processing of palm oil, amongst other organic crops in its region.

Its area of operations is rich in natural beauty surrounded by Caribbean beaches with snow-capped mountains only a few miles away. It is home to 400 bird species and 60 types of mammals. To sustain the region's natural beauty and prevent biodiversity loss, the company maintains buffer zones of a minimum of 30 metres where the plantations meet waterways. It has also set aside or restored more than 10% of its land to create wildlife corridors, which allow animals to roam through the plantations undisturbed. DAABON also uses an organic pest management system to ensure its agricultural practices do not upset the natural balance of ecosystems.

By owning its mills, refineries and bulk terminals, DAABON is able to control every aspect of its operations and resource use and takes a closed-loop approach. For example, the company developed an innovative process that captures methane gas from organic waste and uses it as fuel for energy. "Our ambition is to run a sustainable and socially-responsible business," says Manuel Julián Dávila, DAABON Group CEO. "We are proud of what our team has achieved to develop our agricultural state in harmony with the environment and the local communities as well as to tackle environmental challenges, but we can go much further. We are convinced that by making a commitment for the entire group to become net-zero by 2025, we will make significant progress."

DAABON's commitments also extend to the farmers in Northern Colombia. The company supports a Government initiative called Alliances for Peace. This is a co-operative based program with smallholders that aims to create opportunities for all families displaced by violence. Today, 262 families are growing organic oil palm in one of these Alliances. They receive technical and certification support and education. This gives them the tools to develop long-term sustainable and organic agricultural practices. It also makes them less reliant on harmful chemical fertilizers and pesticides while giving them higher premiums for their products.

This has a positive impact in improving people's livelihoods as well as the environment.





DEEP DIVE: THE DEMOGRAPHICS AND MOTIVATORS OF SUSTAINABLE SHOPPING

Public concern about the impact our species is having on the planet is huge (see figure 4.1). As we've already explored, with stark warnings from the scientific community mounting and documentaries about the harm humankind is doing to the planet becoming ever more shocking, that concern is growing. But the question of how the food industry can galvanise this into positive change on the shop floor remains. Diving deeper into our data suggests some answers...



People may be concerned, but they're still wary of greenwash. Forty six per cent of people agree with the statement that 'a lot of brands say they are sustainable or ethical when they are not'. Those who consider themselves to be committed, sustainable shoppers are more likely to agree with this statement (54% versus 44% of non-committed shoppers) suggesting that they are more likely to scrutinise the claims brands and retailers make. As Figure 4.2 shows, scepticism also varies by age and sex, with men aged over 55 the wariest; women are significantly less so.

A lot of brands say they are sustainable and/or ethical but really they're not

Figure 4.2

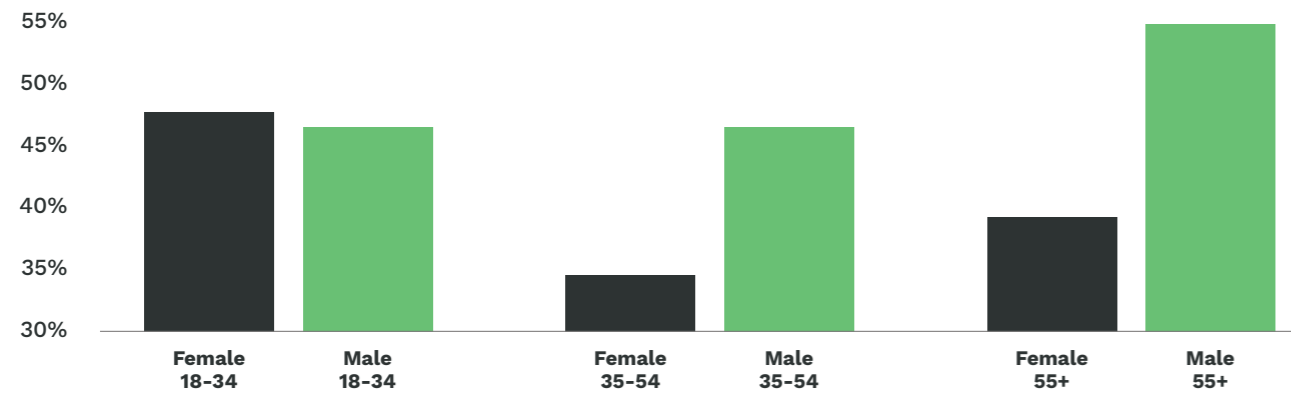


Figure 4.3

I consider how sustainable a product is before buying

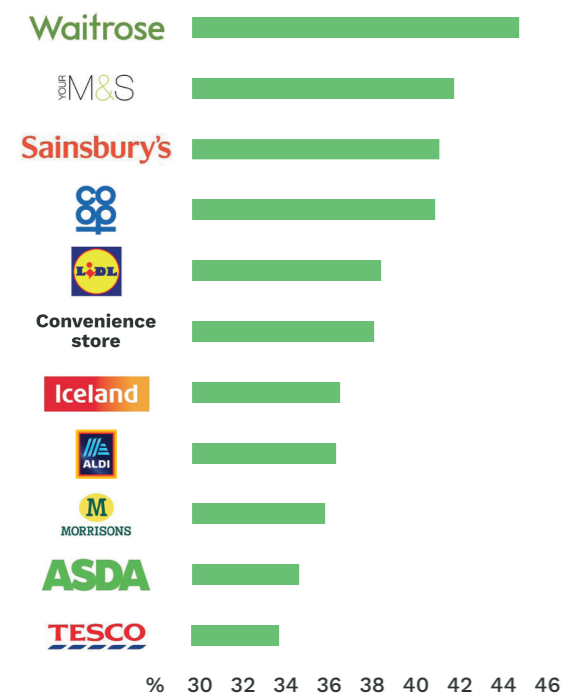


Figure 4.4

I would buy more sustainable products if I was certain they were actually sustainable



This reveals opportunities for brands and retailers that can back up the environmental claims they make. By demonstrating how and why they are more sustainable – through certification or by making their supply chains more transparent, for example – it is likely they will be able to win over a greater number of those sceptical shoppers. Interestingly, our research suggests that it is the retailers that already have a higher proportion of sustainably minded shoppers that stand to benefit most from providing greater clarity. See Figures 4.3 and 4.4.

Shoppers who primarily frequent more premium supermarkets are significantly more likely to consider sustainability than those who shop at more value-orientated retailers. Nearly half (46%) of all Waitrose shoppers say they consider how sustainable a product is before buying, making them the most environmentally conscientious, followed by M&S shoppers at 43% and Sainsbury's and Co-op shoppers, both at 42% (figure 4.3).

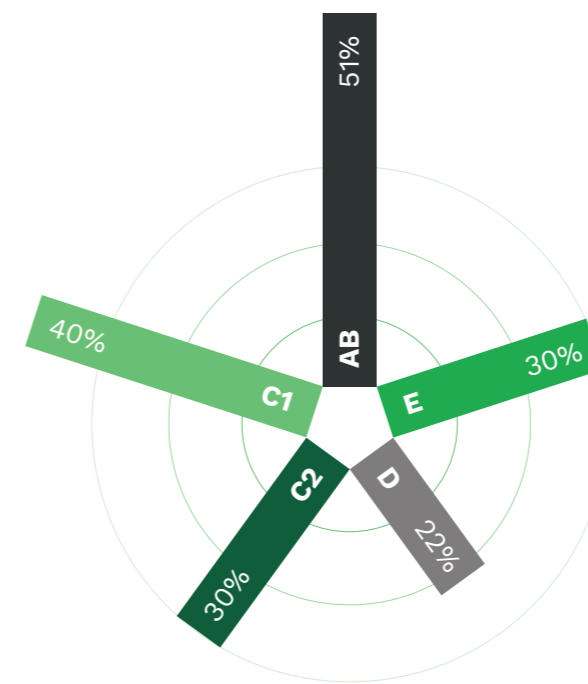
Crucially, it seems there's still significant room for growth in sales of sustainable products in these retailers, if more can be done to reassure shoppers that the environmental claims being made are valid. People who primarily shop at more premium retailers are significantly more likely to say they would be minded to shop more sustainably and/or ethically if they could be certain about products' credentials (figure 4.4). The Co-op scores highest in this regard, with 48% of its shoppers agreeing with this statement, followed by Waitrose, M&S (both 44%) and Sainsbury's (41%).

The above largely reflects the demographics of the supermarkets' customer bases. Understanding of issues such as biodiversity (see figure 4.5) and propensity to consider how sustainable a product is before buying correlates with socioeconomic status, indicating that how affluent and/or educated a person is has a bearing on the likelihood of them choosing more sustainable options at the tills.

The converse is also true (see figure 4.6). Consumers in socioeconomic group E are by far the least likely to agree that it's fair for sustainable brands to carry a higher price (45% agree). This is perhaps not surprising, given that those in this group are likely to be under most financial pressure. What is surprising, however, is that the majority of consumers in all other groups believe it is fair for sustainable products to carry a premium. This presents an opportunity for the food industry to drive change, as well as a commercial opportunity for retailers.

Figure 4.5

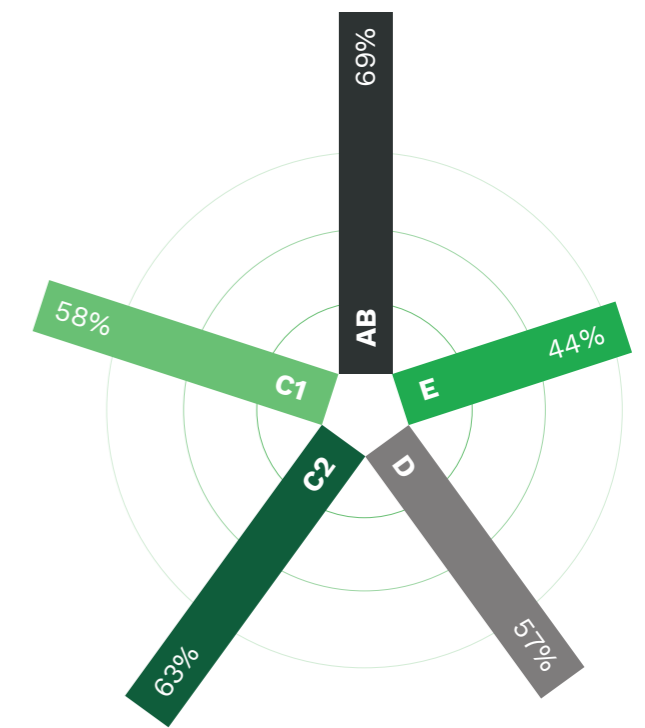
I understand the meaning of biodiversity



Split by socioeconomic group

Figure 4.6

It's fair for sustainable products to carry a premium over standard products



Split by socioeconomic group



WHAT SORT OF NORMAL DO WE WANT TO GO BACK TO?

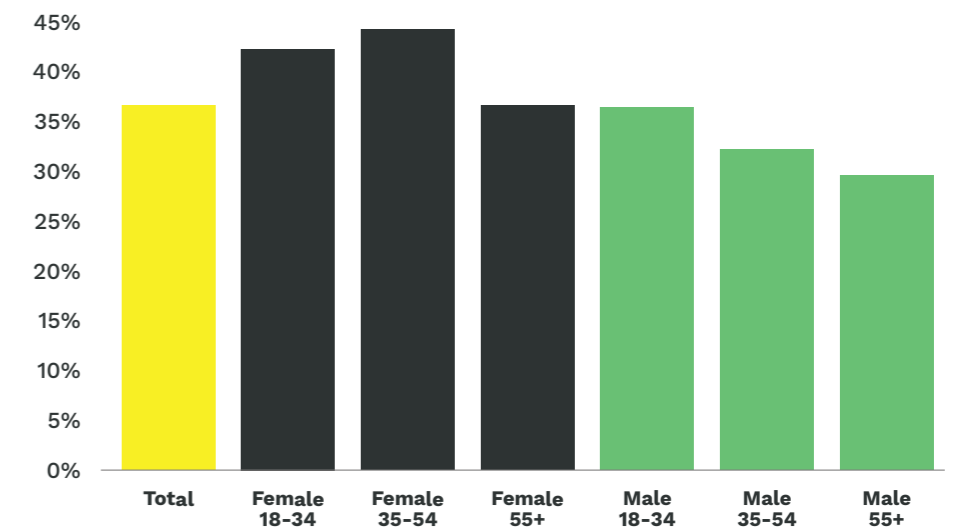
Be in no doubt: we are entering a new age of environmental consumerism. Not only has the number of people who consider sustainability issues at the tills jumped by a quarter over the past two years but the pandemic has given shoppers a renewed sense of the importance of the environment, its fragility and the responsibility we all have to protect it. Thirty six per cent say the past year's events have made them want to protect nature more (see Figure 5.1)

“This has been described as a health-led recession both in terms of the health of you and the health of the planet. That’s why it’s important retailers maintain availability of organic food and why we are confident that it will not take a big step back as it did in the 2009 recession”

Clare McDermott, Business Development Director, The Soil Association

The pandemic has made me want to protect nature more

Figure 4.7



The fact that younger consumers are more likely to feel this way is familiar. After all, 49% of 18 to 44-year-olds consider themselves to be committed sustainable shoppers, compared to 32% of those aged 45 or over (see chapter 4). As these people mature, have families and instil their values in a new generation, it's likely that the importance of sustainability will continue to grow in shoppers' minds.

"There's been a shift in mindset," says McDermott at the Soil Association. "When it comes to organic food and shopping more sustainably, there is a huge difference between the generations. People in their 20s today are so passionate about the environment and their role in it. So, retailers need to make it easier for these people to choose organic and sustainable food, otherwise they will go elsewhere looking for it.

"The other point to make is that we're in an unequal recession. Now, some people have been hit very hard by the pandemic and a lot of people have saved an awful of money because they have not been spending their money on the things they used to. It's also been described as a health-led recession both in terms of the health of you and the health of the planet. That's why it's important retailers maintain availability of organic food and why we are confident that it will not take a big step back as it did in the 2009 recession."

"For things like cocoa, coffee and tea you now have that traceability going down to the individual farm in some cases. Getting that in place for all the products in Tesco, Sainsbury's, Aldi or wherever would be transformational. And it is not impossible. It's just going to take a time"

Neil Burgess, Chief Scientist, UNEP-WCMC



As shoppers become committed to the environment, they will also become more demanding of retailers and their suppliers in terms transparency of supply chains. On average, 26% of shoppers say they consider supply chain transparency when shopping for groceries, yet nearly three times the number of people who consider themselves to be sustainable shoppers (64%) say they do. Clearly, the food industry needs to provide greater clarity.

"For things like cocoa, coffee and tea you now have that traceability going down to the individual farm in some cases," says Burgess at UNEP-WCMC. "Getting that in place for all the products in Tesco, Sainsbury's, Aldi or wherever and then knowing what the environmental impact of each product is would be a transformational thing to do. And it's not impossible. It's just going to take a bit of time."

Demonstrable environmental credentials and supply chain transparency may soon not just be a marketable point of difference, they could mean the difference between commercial success and failure.

ABOUT ECOTONE

Formerly known as Wessanen, Ecotone is a mission-led business committed to charting an alternative path to the dominant, industrial food model that is damaging the planet.

Ecotone is a European leader for organic and vegetarian food and was also the first and largest international food business to be fully B Corp certified.

The business offers a broad portfolio of natural, organic and vegetarian foods through Europe's leading purpose-driven brands. In the UK this includes:

- The UK's first Fairtrade tea company, **Clipper Teas**, which makes natural, fair and delicious hot beverages and created the world's first fully biodegradable, non-GM and unbleached tea bag;
- **Whole Earth**, the UK's no.1 peanut butter brand and manufacturer of natural and organic spreads, cereals and drinks;
- **Kallø** makes market-leading, organic rice, corn and veggie cakes, as well as the UK's fastest-growing range of stocks and gravies;
- **Mrs Crimble's**, the gloriously gluten-free cake brand that makes delicious baked goods for all to enjoy.

Named after the richest most biodiverse places on earth, Ecotone is guided by its mission Food for Biodiversity; to challenge conventions and drive change in food production in order to preserve and grow biodiversity.

Find out more >> www.ecotone.bio



www.ecotone.bio