

# **5 Household behaviour and food consumption**

---

Food systems emit around one third of global anthropogenic greenhouse gases (GHGs), with livestock production accounting for 32% of all agricultural emissions. This chapter summarises responses to questions on food consumption in the third round of the OECD Survey on Environmental Policies and Individual Behaviour Change (EPIC). The chapter analyses the data on households' food consumption behaviour across the nine countries surveyed, including their frequency of consuming seasonal and organic food, whether households source locally, the frequency with which they consume red meat and their willingness to consume meat alternatives, and their priorities when purchasing food. It also explores respondents' support for various public policies to promote the sustainability of food systems.

---

## Key findings

- **Affordability, freshness, taste and nutritional value, rather than environmental considerations, are priorities when making food purchases.** Compared with affordability, freshness, taste and nutritional value, a product's carbon footprint and the amount of pesticides used in its production are reported to be less important, even among environmentally concerned respondents. This suggests that appeals to concern for the environment alone will not be sufficient to influence consumers towards sustainable food choices. Complementary attention to the affordability, taste, and health benefits of food items will be needed to influence purchasing behaviour.
- **Meat is widely consumed and a shift to more sustainable alternatives has the potential to yield large-scale environmental benefits.** Overall, 24% of respondents report eating meat several times a week. There is a consistent association between higher incomes and more frequent consumption of animal products, especially for red meat and seafood. Income appears to have more of a correlation with red meat consumption than with environmental concern.
- **Campaigns encouraging consumers to shift their diet towards more sustainable alternatives should be complemented by efforts to correct misperceptions about safety, cost and nutritional value.** Only 28% of respondents, ranging from 20% in France and 41% in Israel, indicate a willingness to substitute red meat for a lab-grown alternative, while 44% indicate that they would not be willing to do so. Respondents cite reservations about potential health impacts, presumed inferior taste and nutritional value, high cost and incompatibility with their culture or values.
- **High levels of support for many food-system policies suggest that households may be relatively receptive towards policies that aim to induce shifts to more sustainable diets.** Support is highest for policies aiming to educate people about sustainable diets (78% of respondents), to regulate the use of pesticides (71%), and to provide farmers with incentives to adopt sustainable agricultural practices (74%). Support for policies involving a tax on meat or seafood was much lower, with 26% of respondents strongly disagreeing.

## 5.1. Introduction

Food systems encompass the activities involved in the production, processing, distribution and consumption of food. These systems face a triple challenge: providing food security to a growing population; improving environmental sustainability; and providing for farmers and those whose livelihoods depend on the food supply chain (OECD, 2021<sup>[1]</sup>). The growing importance of the agriculture, forestry and fishing sectors is signalled by their contribution to the global economy, which increased from USD 0.9 trillion in 1970 to USD 3.6 trillion in 2020 (World Bank and OECD, 2022<sup>[2]</sup>). Growth in both population and per capita income are expected to increase global demand for food by 1.4% per year over the next decade (OECD/FAO, 2022<sup>[3]</sup>). To satisfy projected demand by 2050, total calories from agricultural production must increase by 35% to 56% compared to 2010 (van Dijk et al., 2021<sup>[4]</sup>). Food security faces further challenges from a potential scarcity of arable land and water, and a growing demand for under-priced and resource-intensive food products, such as meat and dairy (Godfray et al., 2018<sup>[5]</sup>). The pressures that food systems face from changes in demand are exacerbated by environmental degradation, competing land uses and climate change.

Farmed land occupies about 40% of Earth's terrestrial surface and accounts for around 70% of global freshwater use (Poore and Nemecek, 2018<sup>[6]</sup>; Foley et al., 2011<sup>[7]</sup>; IPCC, 2019<sup>[8]</sup>). Food systems emit around one third of global anthropogenic greenhouse gases (GHGs), while agriculture alone accounts for 17% (FAO, 2021<sup>[9]</sup>; Poore and Nemecek, 2018<sup>[6]</sup>; Crippa et al., 2021<sup>[10]</sup>; IPCC, 2019<sup>[8]</sup>). Livestock production accounts for 32% of total emissions from agriculture, while cultivation accounts for 37% and land-use change 31%. In addition to contributing to climate change by releasing large amounts of stored carbon from vegetation and soils, conversion of forest to farmland also drives global biodiversity loss (Searchinger et al., 2018<sup>[11]</sup>).

Intensifying agriculture can increase yields and thereby reduce demand for cultivated land. However, the high levels of fertiliser and pesticides required by intensive food production can enter the environment at levels that often exceed environmental standards, posing a risk to ecosystem health and biodiversity (Pimentel and Burgess, 2014<sup>[12]</sup>). Lifecycle analyses estimate that pollution from food systems, mostly from the use of nitrogen fertiliser, is responsible for 32% of terrestrial acidification (i.e. deposition of sulphur or nitrogen in the soil causing changes in its chemical properties) and 78% of eutrophication (a similar process in freshwater bodies) (OECD, 2018<sup>[13]</sup>). In the long run, these externalities could threaten productive food systems, which depend on well-functioning ecosystems.

All food production systems are dependent upon, but also impact, the environment to a greater or lesser extent. As global food demand increases, there is a commensurate need for targeted policy action to increase both the sustainability and efficiency of food production systems in order to minimise their overall environmental impact. Supply-side measures, such as environmental standards, can play an important role in driving production changes that reduce the negative environmental impacts of food production (IPCC, 2022<sup>[14]</sup>). For example, beef sourced from the dairy sector results in emissions 60% lower than those from dedicated beef herds (Poore and Nemecek, 2018<sup>[6]</sup>).

Protein derived from any farmed animal, however, affects the environment far more than the nutritionally equivalent plant protein, regardless of production method. Based on GHG emissions, eutrophication and acidification, plant-based protein sources (beans, peas, nuts and tofu) have the lowest average environmental impact. Even when comparing the least impactful producers of animal protein, emissions from meat, dairy, aquaculture and eggs still exceed the average emissions from plant-based proteins (Poore and Nemecek, 2018<sup>[6]</sup>). Taken together, animal products use 83% of farmland and contribute 56-58% of emissions from food while providing only 37% of protein and 18% of calories produced globally (Poore and Nemecek, 2018<sup>[6]</sup>).

A shift to organic food production can mitigate the impacts of synthetic fertilisers and pesticides on ecosystem health, biodiversity loss and fossil fuel use and support long-term soil health through crop

rotation and inter-cropping practices. However, organic farming requires more land than intensive farming and GHG emissions are similar across both production methods (Clark and Tilman, 2017<sup>[15]</sup>). Food miles do not necessarily determine a product's net environmental impact, especially for animal products, as some studies show that importing vegetables from regions in which they are in season results in far fewer emissions than producing them locally during winter months (Hospido et al., 2009<sup>[16]</sup>). Evidence for the environmental impact of ultra-processed foods is limited. However, many of these food products contain palm and soy oils, which have substantial negative effects on the environment and biodiversity (Seferidi et al., 2020<sup>[17]</sup>).

Measures that succeed in shifting diets away from resource-intensive products can deliver environmental benefits beyond those that can be achieved by improving production methods alone (Poore and Nemecek, 2018<sup>[6]</sup>; OECD, 2021<sup>[11]</sup>). This is especially true in developed countries where demand for animal protein is high. The mitigation potential of a shift to plant-based diets is estimated at 0.7–8 gigatonnes of carbon dioxide equivalent (GtCO<sub>2</sub>eq) per year by 2050.<sup>1</sup> Dietary shifts could also reduce agricultural land use by 3.1 billion hectares, which in turn reduces land degradation and desertification (IPCC, 2019<sup>[8]</sup>; IPCC, 2022<sup>[14]</sup>). More environmentally friendly diets also deliver significant co-benefits for public health and food security (Searchinger et al., 2018<sup>[11]</sup>; IPCC, 2019<sup>[8]</sup>). Estimates suggest that a switch to diets with fewer animal-sourced foods could reduce global mortality by 6-10% (Springmann et al., 2016<sup>[18]</sup>). Plant-based alternatives and lab-grown meat can be produced in less resource-intensive ways with a considerably smaller carbon footprint than conventionally-raised meat (Frezal, Nenert and Gay, 2022<sup>[19]</sup>; Treich, 2021<sup>[20]</sup>). Existing public health policies, such as food labelling, that have proven successful in shifting consumption choices can offer a valuable basis for policy design (Giner and Brooks, 2019<sup>[21]</sup>; Temme et al., 2020<sup>[22]</sup>).

This chapter gives an overview of the data gathered in the third round of the OECD Survey on Environmental Policy and Individual Behaviour Change (EPIC) on a variety of household decisions related to food systems.<sup>2</sup> It explores in particular households':

- dietary habits and willingness to try lab-grown meat
- food priorities and shopping habits
- purchases of seasonal, locally sourced and organic food
- changes in food consumption behaviour following the COVID-19 pandemic
- support for food system policies.

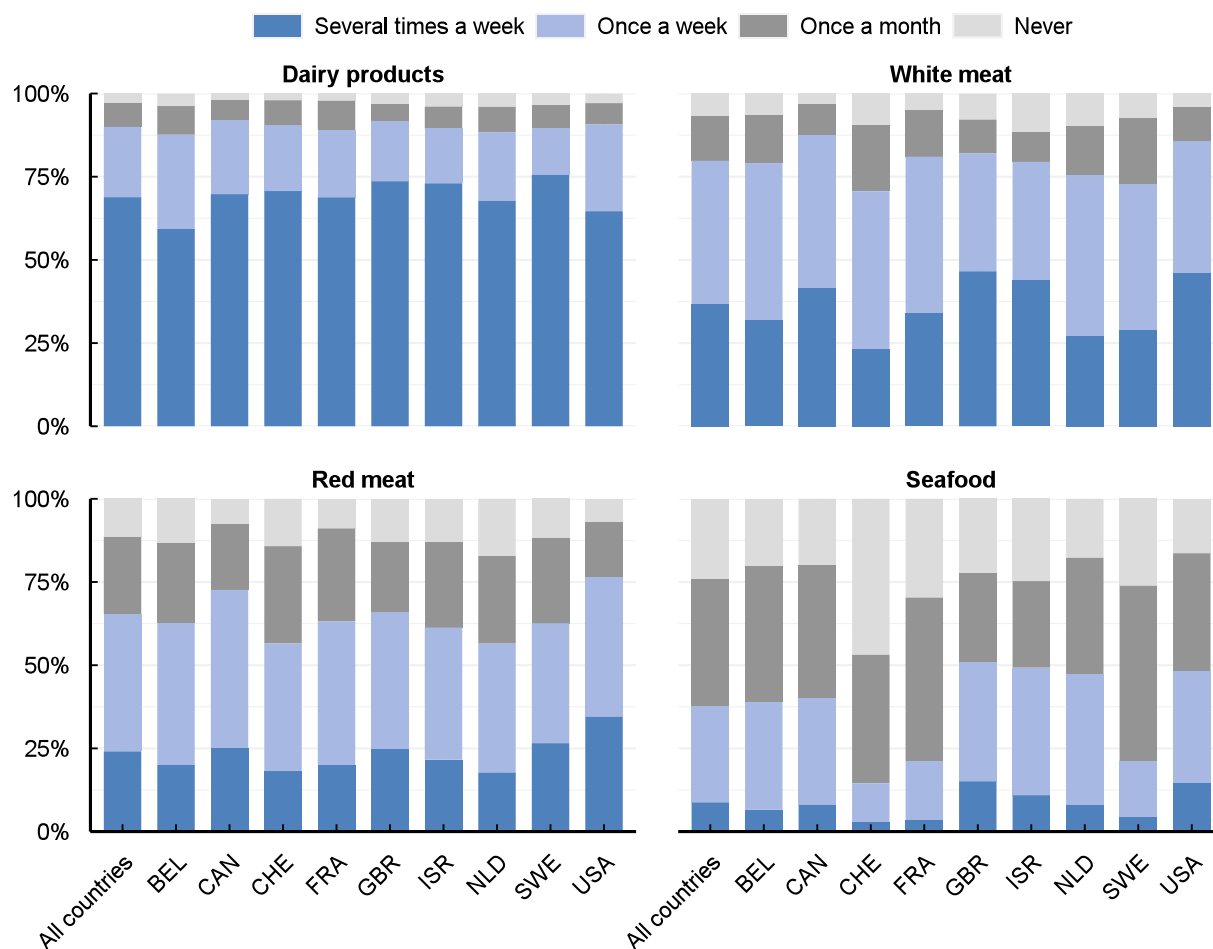
For each of these areas, the chapter uses representative country samples to analyse differences in respondents' behaviours and attitudes across relevant variables such as income level, residence type and location, ownership status and level of environmental concern.

## 5.2. Household dietary habits

The survey shows that dairy products are consumed the most frequently (Figure 5.1), with an average of 69% of households eating them several times a week (ranging from 60% in Belgium to 76% in Sweden). On average, 65% of households report eating meat at least once per week (ranging from 56% in Switzerland and the Netherlands to 76% in the United States). Of these, 41% of households eat red meat once a week (ranging from 36% in Sweden to 48% in Canada), and 24% eat it several times a week (ranging from 18% in the Netherlands and 34% in the United States). Consumption of white meat is more frequent but also more variable across countries (from 23% in Switzerland to 47% in the United Kingdom reporting eating it several times a week), while seafood is generally consumed less frequently and with even greater variability (from 3% in Switzerland to 15% in the United Kingdom eating it more than once a week). Interestingly, across all countries, those reporting lower consumption of red or white meat also report consuming less dairy.

**Figure 5.1. Dairy products are the most frequently consumed animal products, followed by white meat**

Percentage of respondents



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, once a month, once a week or several times a week.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

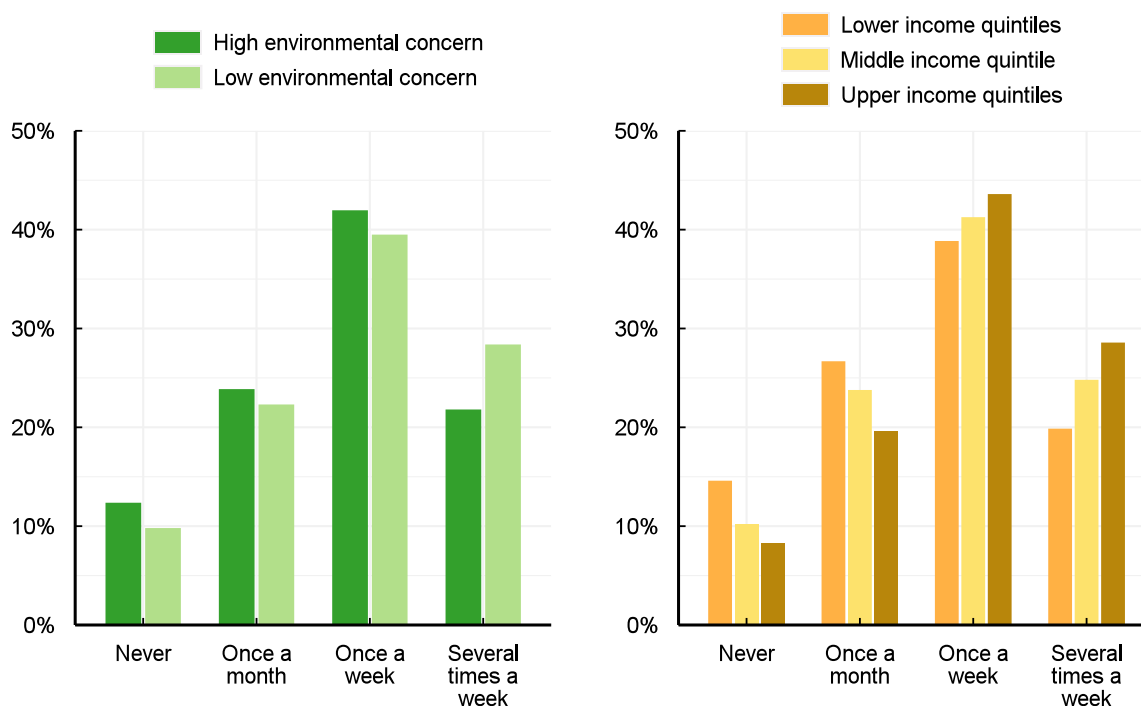
StatLink  <https://stat.link/xsife1>

All countries indicate a consistent association between higher incomes and the consumption of dairy products, red meat, seafood and white meat. The correlation appears strongest for red meat and seafood. Those in the upper income quintiles report eating meat more frequently than those in the lower income quintiles: 29% of respondents in higher-income households report eating meat several times a week, compared to 20% of respondents in lower-income households. Similarly, 15% of those in lower-income households report never eating red meat compared to 8% in higher-income households. In the United States, where consumption of red meat is relatively high, there is a smaller difference between lower and upper-income households (4 percentage points). Other studies have also found strong positive correlations between income and meat consumption, although a negative correlation has been observed at very high levels of income in some cases (Bonnet et al., 2020<sub>[23]</sub>).

Red meat consumption appears to be correlated with income to a greater extent than with environmental concern (Figure 5.2). Among respondents who are environmentally concerned, a slightly smaller proportion report eating red meat several times a week compared to those less concerned (Figure 5.2). The differences range from 3 percentage points in the United States to 12 percentage points in the United Kingdom. On average, 12% of respondents with high environmental concern report never eating red meat, compared to 10% of respondents with low environmental concern. This relatively small difference could point to the fact that other factors, such as animal welfare or personal health, may also be important in determining red meat consumption, or that there is still limited public awareness of the environmental impacts of red meat.

**Figure 5.2. Environmentally concerned respondents are less likely to consume red meat several times a week**

Percentage of respondents consuming red meat by frequency and environmental concern



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, once a month, once a week or several times a week.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/ns6kqz>

In light of evidence suggesting that red meat consumption is driven more by income than by environmental concern, awareness campaigns and other soft environmental policy instruments could focus on the lower costs and health-related co-benefits of reducing red meat consumption (IPCC, 2019<sup>[8]</sup>; Willett et al., 2019<sup>[24]</sup>). Persuasive communication has been shown to successfully reduce red and processed meat consumption (Carfora et al., 2019<sup>[25]</sup>). A particular target group could be environmentally concerned consumers that are not aware of the environmental impacts of meat production. Labelling schemes and certification programmes can promote better understanding regarding sustainable diets, although existing evidence on the effectiveness of sustainability labels in shifting behaviour is inconclusive (Godfray et al., 2018<sup>[5]</sup>).

When asked about their willingness to substitute red meat for a lab-grown alternative, 28% of respondents overall indicate a willingness to do so, while 44% indicate that they would not be willing to do so, and the rest report being undecided. Willingness to try lab-grown meat is lowest in France, at 20% of respondents, and highest in Israel, where 41% of respondents report being comfortable in doing so.

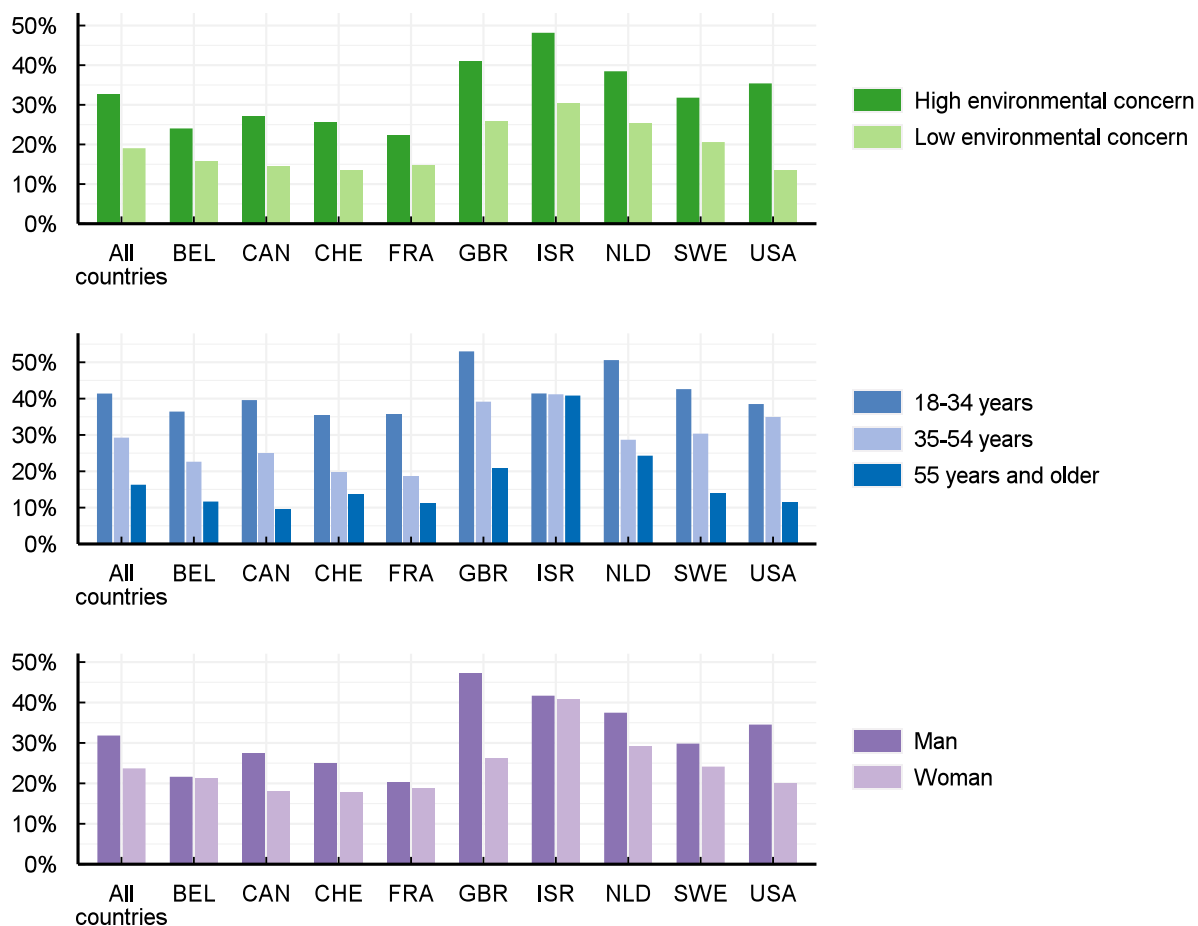
Willingness to try lab-grown meat also varies significantly by environmental concern, age and gender (Figure 5.3). In all countries, a considerably larger proportion (33%) of those highly concerned about the environment report being willing to try lab-grown meat than those who are less concerned (19%). Generally, younger respondents also exhibit a greater willingness to try it than older respondents (41% versus 16%), with men generally appearing more willing than women. This difference is greatest in the United Kingdom, where 47% of men would be willing to consume lab-grown meat compared to 26% of women. Exceptions are Belgium and Israel, where a similar proportion of men and women report being willing to do so (32% versus 24%). Across income, the differences in willingness to try lab-grown meat are smaller; 27% of respondents from lower income quintiles are willing to try lab-grown meat compared to 31% of respondents from upper income quintiles.

Reservations about possible health impacts are the most frequently cited reason for respondents not being willing to try lab grown meat, with 29% of respondents citing it as a concern. Respondents also cite its presumed inferior taste or nutritional value (13%), high cost (11%), or incompatibility with their culture or values (10%).

These results can be used to identify groups of consumers likely to be most receptive to policies encouraging a shift from food products with high environmental impact to lab-grown or plant-based meat. Reducing reservations about meat alternatives among those with low acceptance could encourage more households to make dietary changes. Supply-side production standards and environmental labelling of meat alternatives will be important measures to increase consumer confidence in new, more sustainable food products such as lab-grown meat (Frezal, Nenert and Gay, 2022<sup>[19]</sup>).

Figure 5.3. Willingness to try lab-grown meat varies by environmental concern, age and gender

Percentage of respondents willing to try lab-grown meat



Note: This survey item asked respondents: "If available in the future, would you be willing to substitute conventional meat with lab-grown meat?".  
 Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/ce68sq>



## 5.3. Household shopping habits

### 5.3.1. Food purchasing priorities

When purchasing food, respondents generally prioritise affordability, taste, nutrition and freshness (Figure 5.4). Although some reordering of priorities can be seen across income and environmental concern, they remain the top four priorities for respondents across categories. This is also the case for other variables, such as presence of children in the household or whether respondents shop at local stores. Environmental considerations generally matter a great deal less to respondents. Other studies have also found that on average, price, taste, nutrition and safety are among the most important values for food consumers, but that priorities differ significantly across consumers and food consumption habits (Lusk and Briggeman, 2009<sup>[26]</sup>). In June 2022, a surge in consumer prices and falling real wages affected purchasing power in many OECD countries (OECD, 2022<sup>[27]</sup>); the importance of affordability could be partly driven by the cost-of-living crisis during which the survey was implemented.

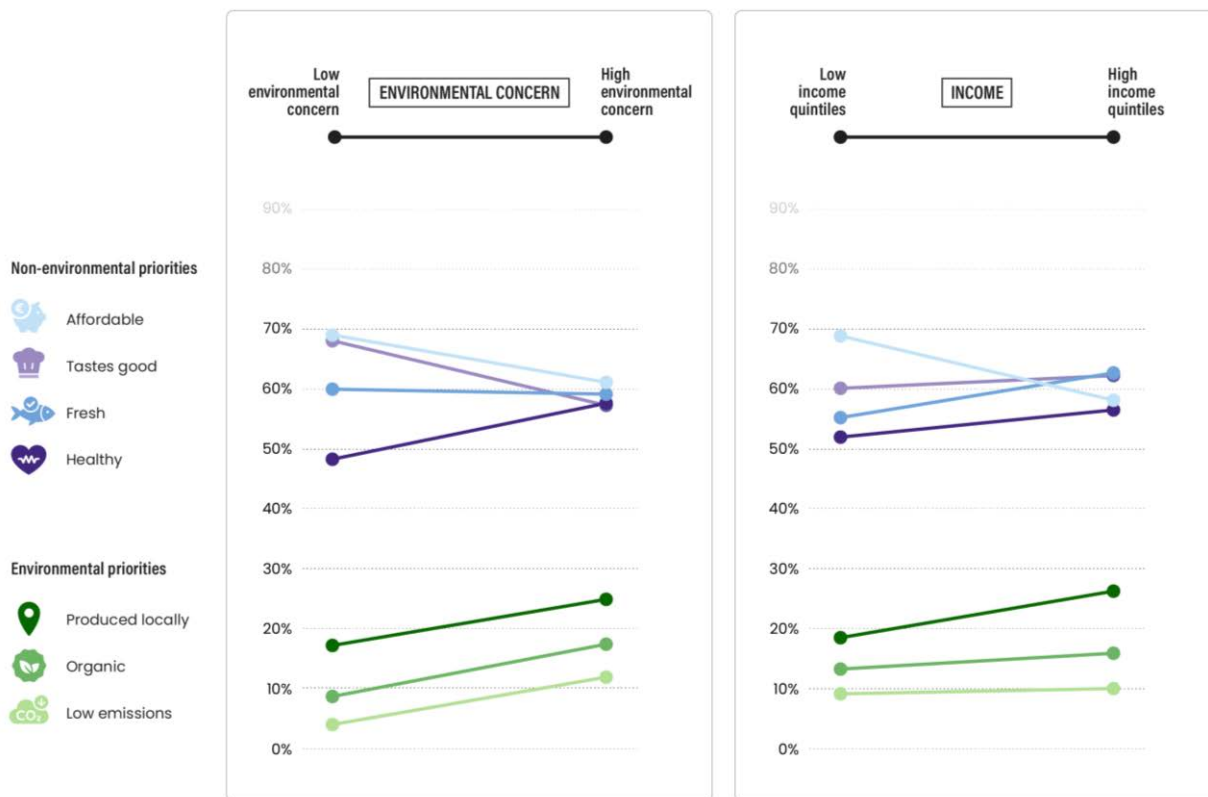
Respondents across high-income households give more weight to freshness, taste and healthiness than do lower income households (Figure 5.4). Among high-income households, 58% of respondents state that affordability is an important factor to them when purchasing food products compared to 69% of low-income households. However, respondents in all income groups still report that affordability is a higher priority than environmental considerations such as low emissions, organic or local production. Households with children prioritise taste more than those without children. Additionally, households that buy at local bakeries, butchers and fruit and vegetable shops appear to value freshness and health over affordability than those who rarely or never shop at local stores. Older respondents and those who live in rural areas report valuing locally produced food more than younger or urban residents. This finding is true across all income quintiles. Younger respondents and respondents with higher education prioritise organic food and low emissions production to a greater extent than older respondents and those without higher education.

The fact that affordability remains a top priority even for respondents who are highly environmentally concerned suggests that differing priorities among households that shop locally is not driven by environmental concern, but rather by the perceived freshness of the food and the associated health considerations. If this result is found to hold against additional control variables in further analyses, this could indicate that shopping locally affects purchasing priorities (Johe and Bhullar, 2016<sup>[28]</sup>). If this is the case, measures encouraging households to use local shops more often could be used to instil and leverage environmentally desirable social norms and behaviours (Nyborg et al., 2016<sup>[29]</sup>).

Research has shown that consumers are generally unaware of the extent to which their choice of food impacts the environment (de Boer, de Witt and Aiking, 2016<sup>[30]</sup>). This could partly explain the low prioritisation of environmental factors such as emissions, even among the environmentally concerned. A variety of policy measures could help to engage consumers in reducing the environmental impacts of their food purchases. Information can be spread through environmental labels, government guidelines and awareness campaigns. The latter could also draw attention to the co-benefits of choosing sustainable food where they align with consumers' priorities of eating healthily and getting value for money. Other studies have shown that food is often selected simply through habit, which is difficult to target using information or by appealing to values (Abrahamse, 2020<sup>[31]</sup>; Campbell-Arvai, Arvai and Kalof, 2014<sup>[32]</sup>). Behavioural interventions, such as offering vegetarian dishes as the default option in school cafeterias, could be complemented with information and educational campaigns. Supply-side interventions, such as setting and enforcing environmental standards, could provide important support to sustainable food policies by addressing the affordability, availability, nutrition and taste of sustainable options.

### Figure 5.4. Environmental considerations are not high priorities when purchasing food

Percentage of respondents considering the factor important by income group and environmental concern



Note: This survey item asked respondents: "What is most important to you when you are choosing which foods to buy? Please select maximum 5." The figure shows the percentage of respondents who selected the factor.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

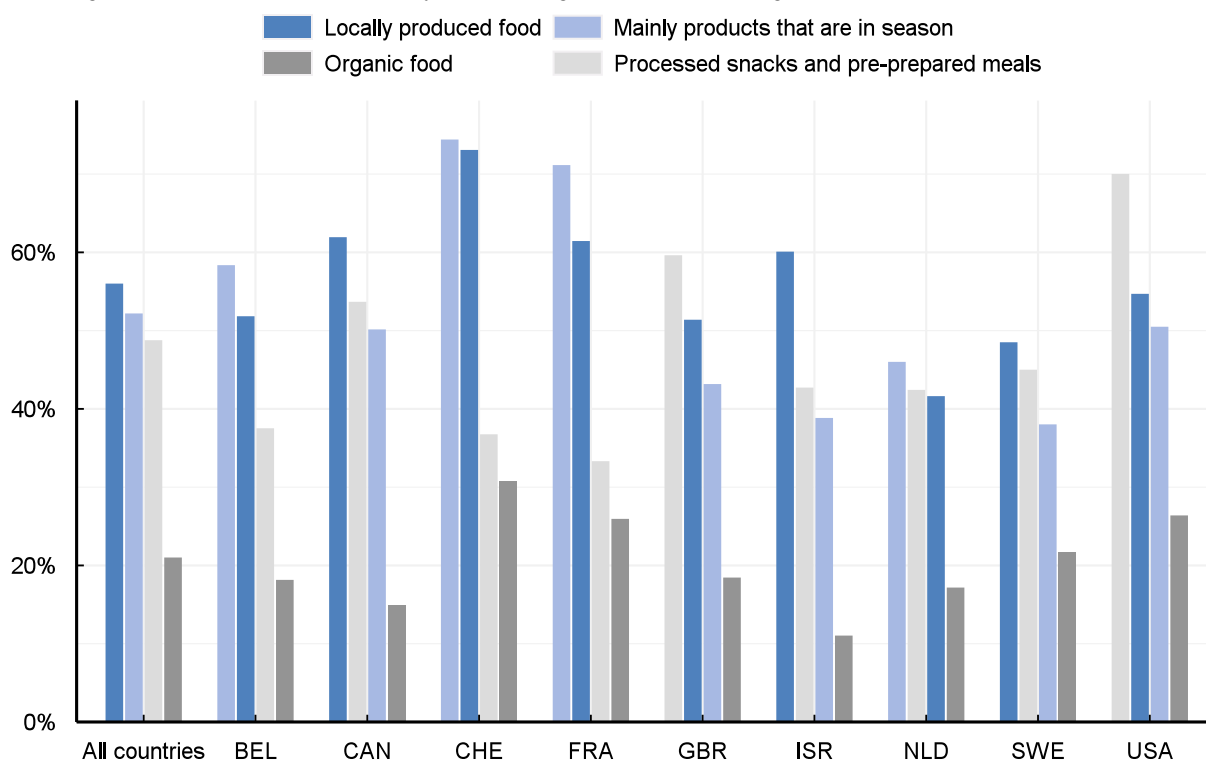
StatLink  <https://stat.link/xumb2a>

#### 5.3.2. Consumption of sustainable food products

The survey asked households how often they eat products that are in season, locally produced and organic, as well as processed foods (Figure 5.5). Overall, 56% of households report that they often or always consume locally produced foods, compared to 47% that often or always consume processed snacks and pre-prepared foods. Consumption of organic food is lower, with an average of 20% of households reporting that they often or always consume organic products. The lowest consumption of organic products is in Israel (11% of households), and highest in Switzerland, at 31%.

**Figure 5.5. Consumption of local, seasonal, organic and processed food**

Percentage of respondents often or always consuming local, seasonal, organic and processed food



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, rarely, sometimes, often or always.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/6io9cl>

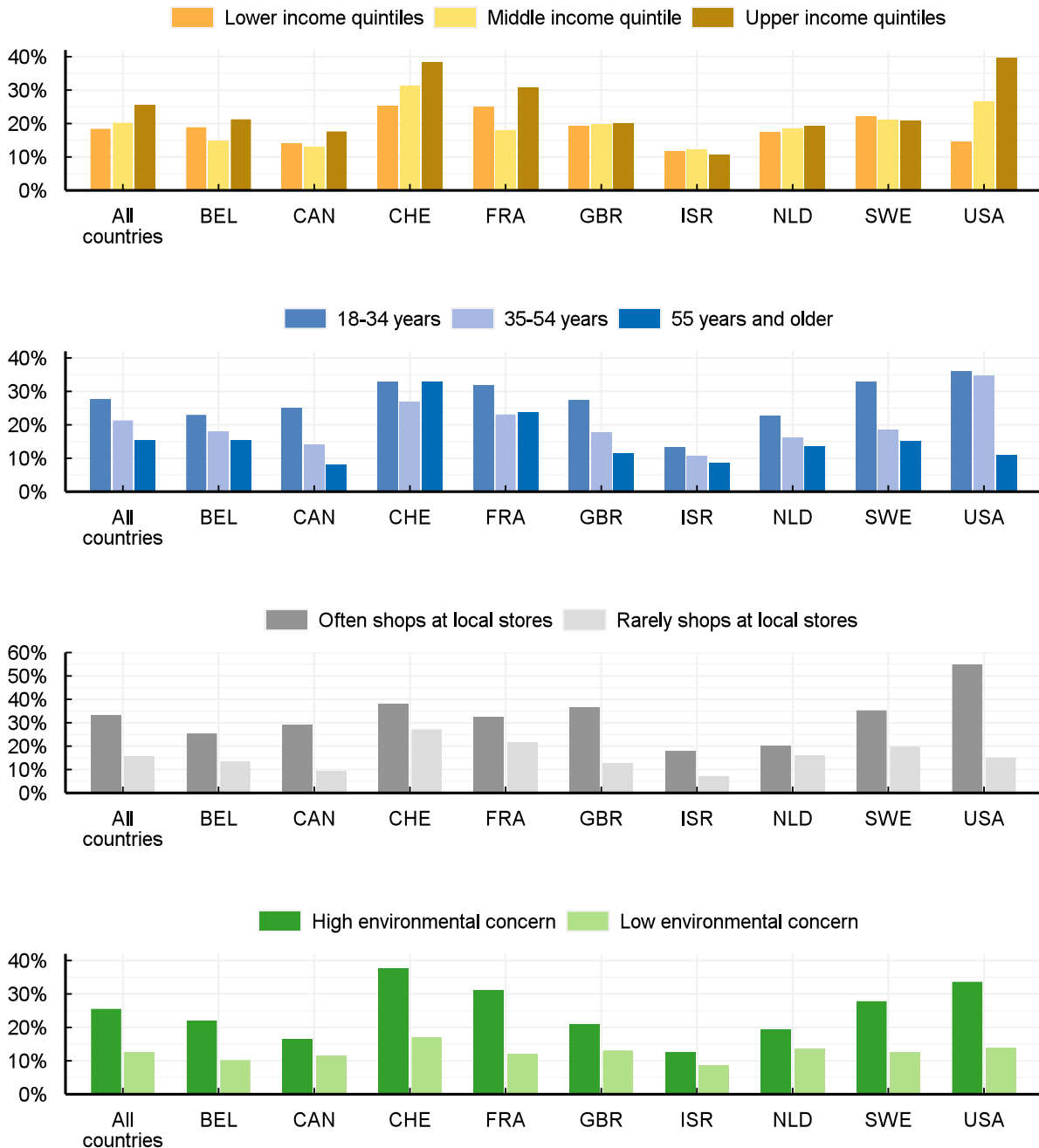
In most countries, respondents from lower-income households are more likely to report that they never consume organic food (Figure 5.6). Belgium and Sweden are exceptions, with no evident association between organic food consumption and income. On average, 26% of households in the upper income quintiles report consuming organic food, compared to 18% of those in the lower income quintiles (Figure 5.6). Differences in reported organic food consumption across income quintiles is greatest in Switzerland and the United States. Younger respondents also report more frequent consumption of organic food than older respondents. Across all countries, 28% of those aged 18-34 report frequently doing so, compared to 15% of those 55 and older. Shopping at local stores also appears to be associated with organic food consumption. In total, 33% of those who often shop at local stores report frequently purchasing organic food, compared to 16% of those who do not do so. Finally, environmental concern appears to be strongly associated with purchasing organic food. Overall, 26% of those with high environmental concern report frequently purchasing organic food, compared to 13% of those with lower environmental concern.

As with other types of environmental behaviour, evidence points to an attitude-behaviour gap in organic food purchases (Hughner et al., 2007<sup>[33]</sup>). The literature shows that while consumers generally hold favourable views of organic food, largely due to its perceived health, taste and food safety benefits, only a small proportion buy organic products. The higher price of organic food has been found to be the main obstacle to purchasing organic food, followed by a lack of availability, and satisfaction with conventional food (Aschemann-Witzel and Zielke, 2017<sup>[34]</sup>). These points indicate that to support organic food consumption, policies could seek to reduce price differentials between organic and conventional food, provide information on the environmental benefits of organic food and the reasons why it can be more

expensive to produce than conventional food, and correct misperceptions regarding its actual affordability. The price difference between conventional and organic food could be reduced by revising agricultural subsidies and environmental regulations (Aschemann-Witzel and Zielke, 2017<sup>[34]</sup>).

**Figure 5.6. Organic food consumption varies by respondent characteristics**

Percentage of respondents often or always consuming organic food



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, rarely, sometimes, often or always. In a separate survey item, respondents were asked where their food typically comes from, with one response option as "Local food shops (e.g. bakeries, butcheries, fruit and vegetable shops)."

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

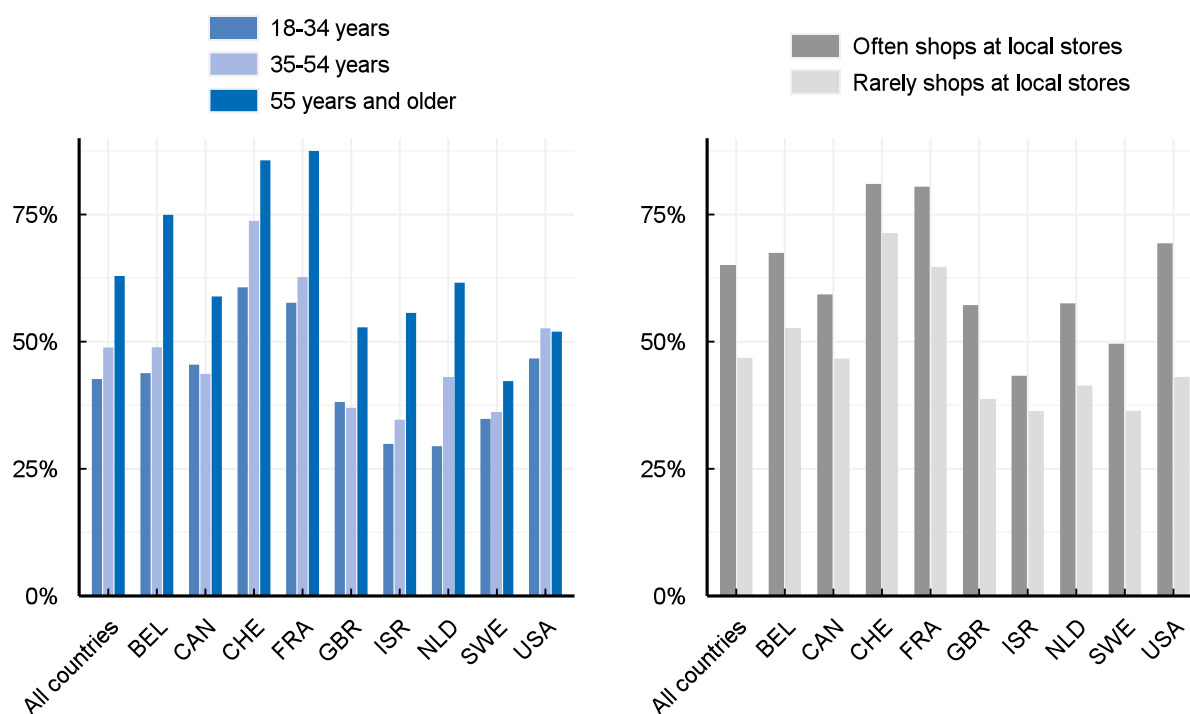
StatLink  <https://stat.link/4k6obw>

In the survey, younger respondents and those with children in the household more commonly report eating processed food, a result that may in part be due to convenience. Across countries, there appears to be no clear relationship between income and the consumption of processed food, but respondents living in rural areas report consuming it less often. Eating food 'in season' is more common among respondents over the age of 55, and this also varies according to where the food is bought – in all countries, more seasonal food is eaten by households that regularly shop at their local stores (Figure 5.7).

More locally produced food is eaten by high-income households and those with high environmental concern (Figure 5.8), except in the Netherlands, where there is no apparent association with income and consumption of locally produced food is generally low. Across most countries, there appears to be no association between consuming locally produced or seasonal food and living in an urban or rural area. The exception is the United States, where urban residents purchase locally produced food more frequently than rural residents. Interest in buying locally produced food has increased over the past 20 years and has been found to depend more on norms and attitudes, such as environmental concern, than socio-economic status (Wenzig and Gruchmann, 2018<sup>[35]</sup>). As with organic food, there is also a common perception among consumers that locally produced food is healthier (Feldmann and Hamm, 2015<sup>[36]</sup>). As shown in Box 5.1, the COVID-19 pandemic had an impact on some types of food consumption behaviour.

**Figure 5.7. Age and shopping locally are associated with greater seasonal food consumption**

Percentage of respondents often or always eating seasonal food



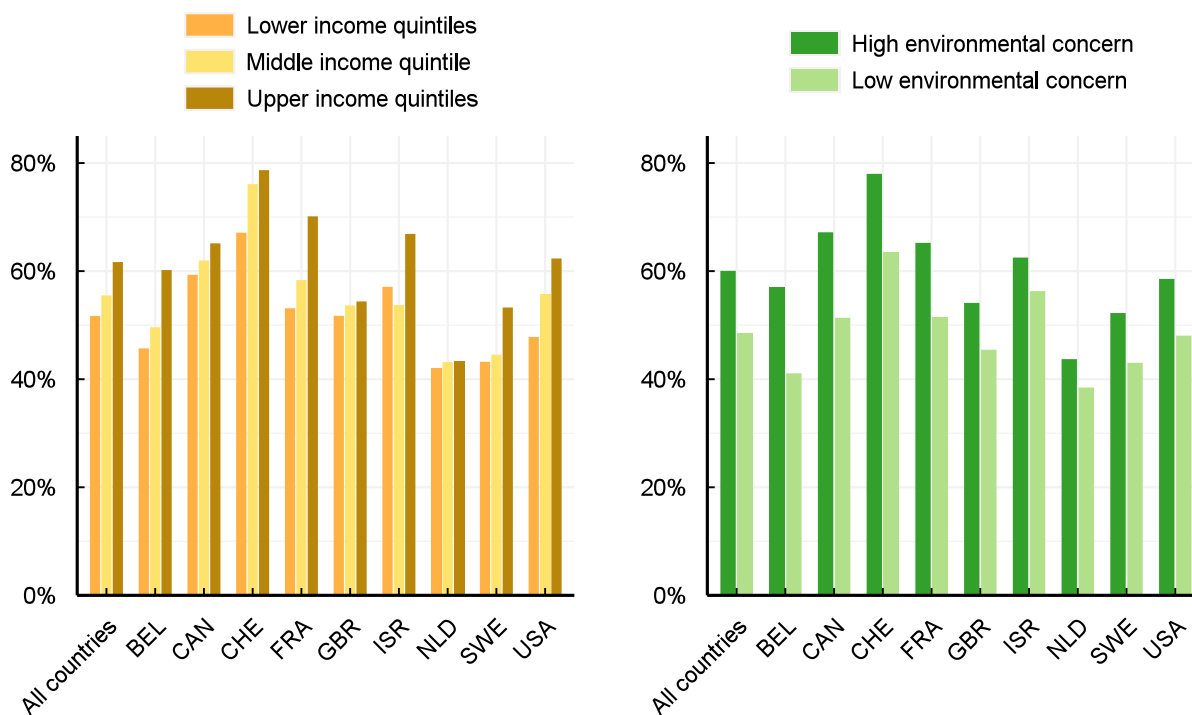
Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, rarely, sometimes, often or always.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/1sauc8>

**Figure 5.8. Wealthier and environmentally concerned respondents are more likely to consume locally produced food**

Percentage of respondents consuming locally produced food once or several times a week



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, once a month, once a week or several times a week.

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

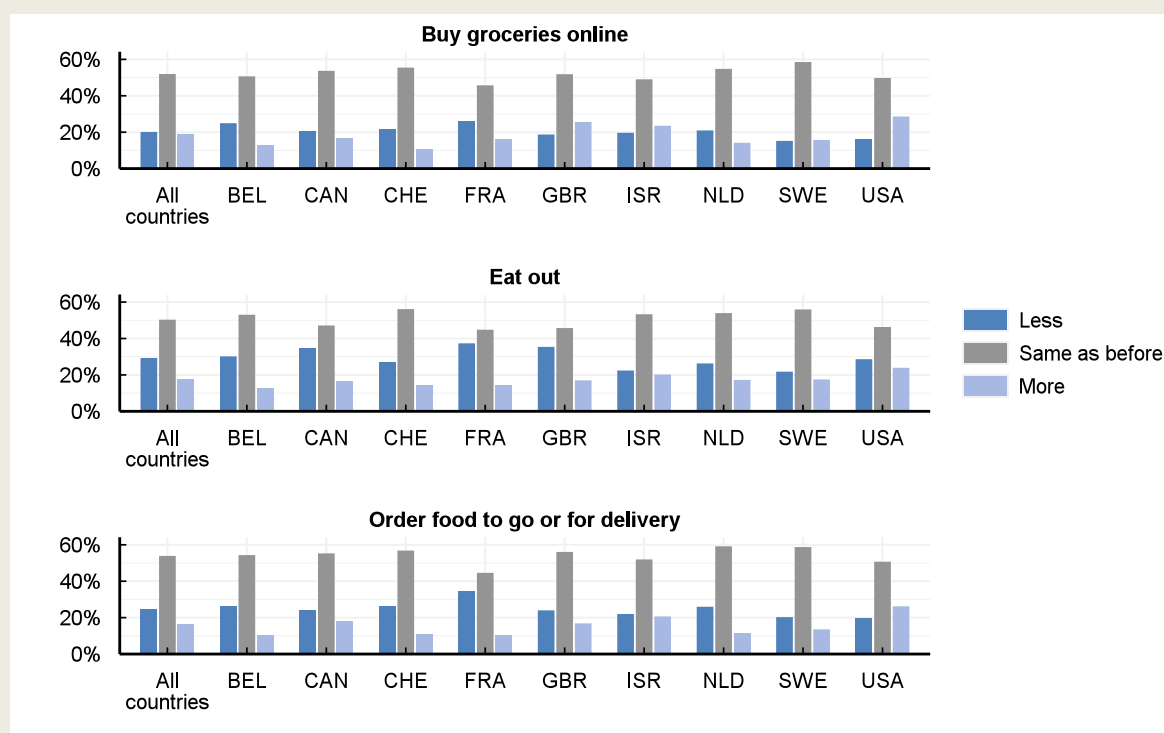
StatLink  <https://stat.link/6gomkx>

### Box 5.1. COVID-19 affected some food consumption behaviours

The EPIC Survey was implemented in June and July 2022 when restrictions introduced during the COVID-19 pandemic had been significantly eased or removed in the nine participating countries. Respondents indicated that they expect some changes to their food consumption habits following the pandemic (Figure 5.9). With the exception of Israel, the United States and the United Kingdom, respondents expect overall to buy groceries online less frequently after the pandemic than before the pandemic. The reason for this finding is unclear. In some countries, an emphasis on shopping as a means to help local communities recover economically may result in fewer households ordering food online from large distributors. Respondents in most countries also report that they expect to order food for takeout or delivery less frequently after the COVID-19 pandemic. Dining out appears to be the most significant reported change, as 29% of respondents across all countries expect to dine out less, while 18% expect to do so more often.


Figure 5.9. The COVID-19 pandemic is changing households' food consumption habits

Percentage of respondents



Note: This survey item asked: "Compared to before the COVID-19 pandemic, how often do you expect to do the following once the COVID-19 pandemic is well under control?".

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

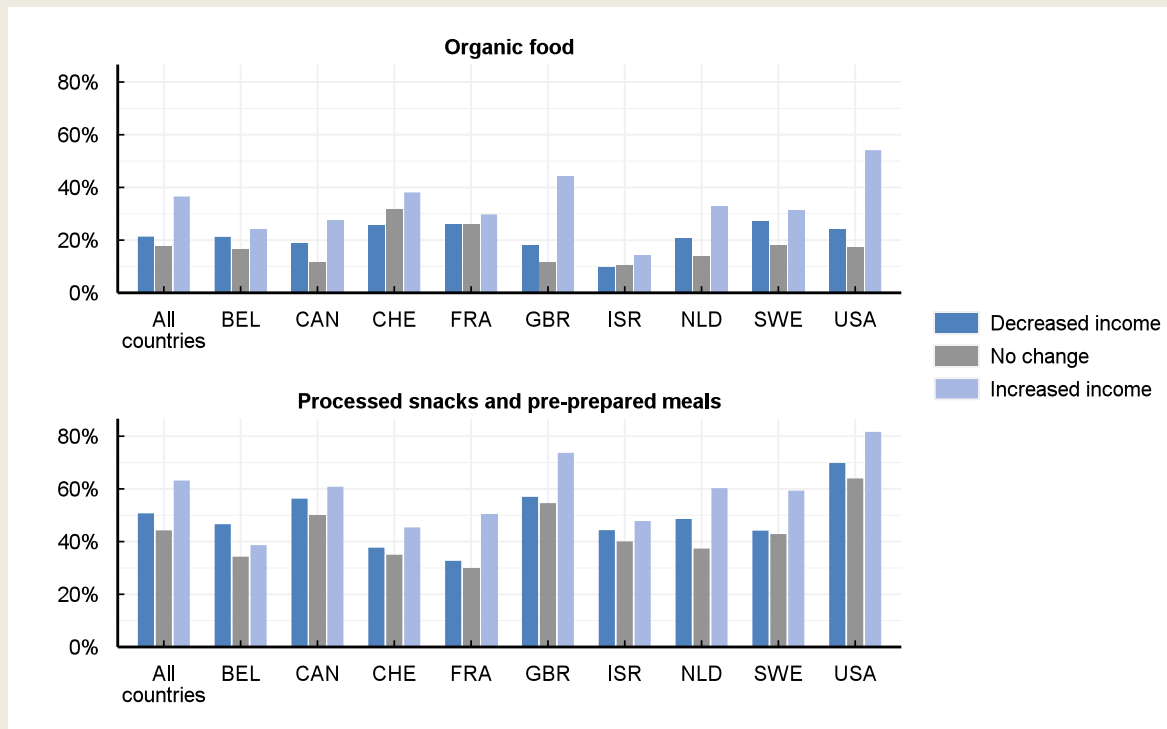
StatLink  <https://stat.link/zd3vaf>

Households that reported a reduction in income over the two years prior to the survey indicate that they expect to consume fewer processed snacks, pre-prepared meals, and organic food products than before, while the opposite is true for those reporting increased income over this period (Figure 5.10). The aggregate environmental impact of these changes is difficult to assess. Given that lower-income households appear to have experienced deeper income cuts than high-income households, policies

could consider measures helping lower income households to buy sustainable food products, especially when these are more expensive. Given that plant-based food products are often cheaper and less environmentally impactful than meat, dairy and seafood products, policies could also focus on promoting plant-based food purchases.


**Figure 5.10. A decrease in income is associated with greater processed food consumption**

Percentage of respondents consuming food product once or several times a week



Note: This survey item asked respondents: "How often do you personally do the following?" For each type of food, respondents could choose never, once a month, once a week or several times a week. Respondents are grouped by their response to a question asking "Have you or someone in your household experienced a significant change income (+/- 20%) at any point in the past two years?".

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/rby9k3>

#### 5.4. Support for food systems policies

As with all policy, successful implementation ultimately relies upon public support. This is particularly true for policies affecting households' daily activities. This survey finds general support for nearly all the food systems policy it addresses (Figure 5.11). Respondents express highest levels of support for educating school children about sustainable diets (78%), providing incentives for farmers to reduce environmentally harmful agricultural practices (74%), and stricter regulation of pesticide use, industrial animal farming and aquaculture (71%). Support for policies targeting the commercial elements of food systems is lower (57%), and much lower for a tax on meat or seafood (23%). More than one quarter (26%) of respondents strongly disagree with a tax-based policy, but less than 5% of respondents strongly disagree with the remainder of

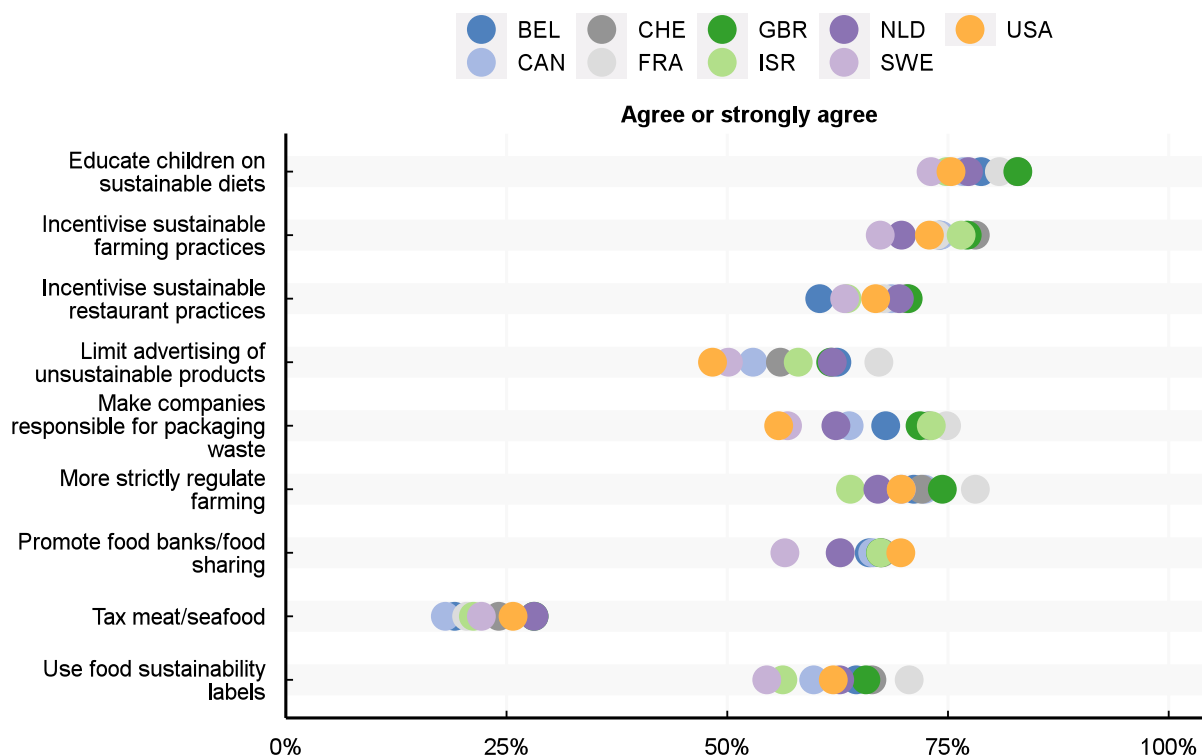


the food systems policies. Concerns about fairness could underpin the general aversion to tax-based measures.

Socio-economic characteristics have little effect on respondents' support for food systems policies. A tax on meat or seafood is the exception, with support being notably higher among younger respondents and urban residents (35% and 30% respectively) than older age groups and rural residents (13% and 17%, respectively). Stricter regulations on the use of pesticides, incentives for farmers to use more environmentally friendly agricultural practices and education on sustainable diet are supported to a greater extent by older respondents. Households with children express greater support for a tax on meat or seafood than do households without, but support for other food systems-related policies, such as incentives for sustainable farming and stricter regulations on farming, is equal across both groups. Further analysis will be needed to determine whether this arises from differences in other factors such as income or financial precariousness.

**Figure 5.11. Support for food system policies is high for all policies except a tax on meat or seafood**

Percentage of respondents strongly agreeing with policies



Note: This survey item asked respondents: "What do you think of the following measures to improve the environmental sustainability of food?" Respondents stated their level of agreement on a 5-point scale from "strongly disagree" to "strongly agree". The graphs show the top three policies with the highest proportion of strong agreement or strong disagreement per country.

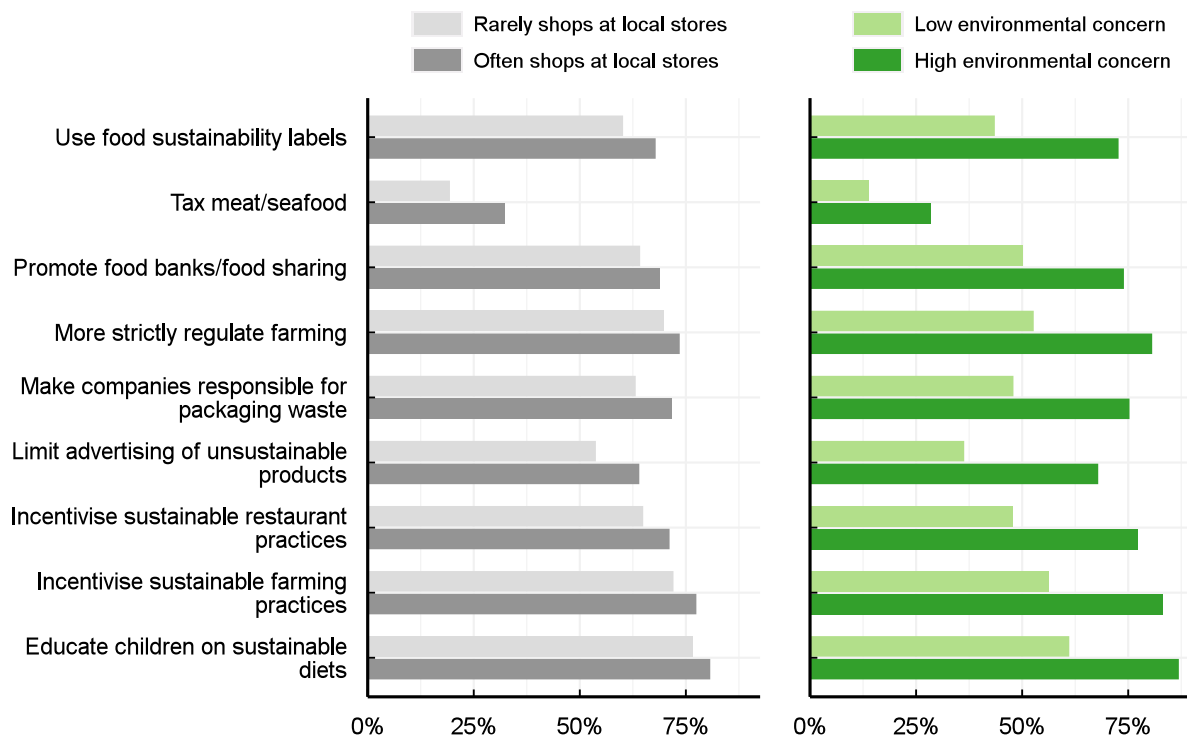
Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/3leh9r>

Environmental concern and shopping locally correlate with support for all types of policy (Figure 5.12), which is surprising considering that environmental concern has little impact on dietary habits and purchasing priorities (Section 5.3.1). Those that frequent local food shops express greater support for all measures, and especially a tax on meat or seafood.


### Figure 5.12. Environmentally concerned respondents express greater support for all food systems policies

Percentage of respondents agreeing or strongly agreeing with policies



Note: This survey item asked respondents: "What do you think of the following measures to improve the environmental sustainability of food?" Respondents stated their level of agreement on a 5-point scale from "strongly disagree" to "strongly agree".

Source: OECD (2022), Environmental Policies and Individual Behaviour Change Survey.

StatLink  <https://stat.link/nldw13>

## References

- Abrahamse, W. (2020), “How to Effectively Encourage Sustainable Food Choices: A Mini-Review of Available Evidence”, *Frontiers in Psychology*, Vol. 11, p. 3134, <https://doi.org/10.3389/FPSYG.2020.589674/BIBTEX>. [31]
- Aschemann-Witzel, J. and S. Zielke (2017), “Can’t Buy Me Green? A Review of Consumer Perceptions of and Behavior Toward the Price of Organic Food”, *Journal of Consumer Affairs*, Vol. 51/1, pp. 211-251, <https://doi.org/10.1111/JOCA.12092>. [34]
- Bonnet, C. et al. (2020), “Viewpoint: Regulating meat consumption to improve health, the environment and animal welfare”, *Food Policy*, Vol. 97, <https://doi.org/10.1016/j.foodpol.2020.101847>. [23]
- Campbell-Arvai, V., J. Arvai and L. Kalof (2014), “Motivating Sustainable Food Choices: The Role of Nudges, Value Orientation, and Information Provision”, *Environment and Behavior*, Vol. 46/4, pp. 453-475, <https://doi.org/10.1177/0013916512469099>. [32]
- Carfora, V. et al. (2019), “How to reduce red and processed meat consumption by daily text messages targeting environment or health benefits”, *Journal of Environmental Psychology*, Vol. 65, p. 101319, <https://doi.org/10.1016/J.JENVP.2019.101319>. [25]
- Clark, M. and D. Tilman (2017), “Comparative analysis of environmental impacts of agricultural production systems, agricultural input efficiency, and food choice”, *Environmental Research Letters*, Vol. 12, <https://doi.org/10.1088/1748-9326/aa6cd5>. [15]
- Crippa, M. et al. (2021), “Food systems are responsible for a third of global anthropogenic GHG emissions”, *Nature Food*, Vol. 2/3, pp. 198-209, <https://doi.org/10.1038/s43016-021-00225-9>. [10]
- de Boer, J., A. de Witt and H. Aiking (2016), “Help the climate, change your diet: A cross-sectional study on how to involve consumers in a transition to a low-carbon society”, *Appetite*, Vol. 98, pp. 19-27, <https://doi.org/10.1016/J.APPET.2015.12.001>. [30]
- FAO (2021), “Emissions due to agriculture Global, regional and country trends 2000-2018”, *FAOSTAT Analytical Brief Series No 18*. [9]
- Feldmann, C. and U. Hamm (2015), “Consumers’ perceptions and preferences for local food: A review”, *Food Quality and Preference*, Vol. 40/PA, pp. 152-164, <https://doi.org/10.1016/J.FOODQUAL.2014.09.014>. [36]
- Foley, J. et al. (2011), “Solutions for a cultivated planet”, *Nature*, Vol. 478/7369, pp. 337-342, <https://doi.org/10.1038/nature10452>. [7]
- Frezal, C., C. Nenert and H. Gay (2022), “Meat protein alternatives: Opportunities and challenges for food systems’ transformation”, *OECD Food, Agriculture and Fisheries Papers*, No. 182, OECD Publishing, Paris, <https://doi.org/10.1787/387d30cf-en>. [19]
- Giner, C. and J. Brooks (2019), “Policies for encouraging healthier food choices”, *OECD Food, Agriculture and Fisheries Papers*, No. 137, OECD Publishing, Paris, <https://doi.org/10.1787/11a42b51-en>. [21]
- Godfray, H. et al. (2018), *Meat consumption, health, and the environment*, <https://doi.org/10.1126/science.aam5324>. [5]

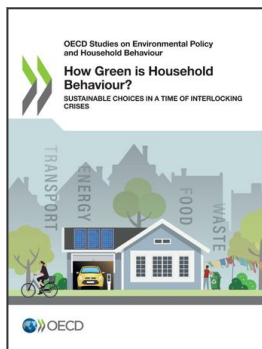
- Hospido, A. et al. (2009), "The role of seasonality in lettuce consumption: A case study of environmental and social aspects", *International Journal of Life Cycle Assessment*, Vol. 14/5, pp. 381-391, <https://doi.org/10.1007/s11367-009-0091-7>. [16]
- Hughner, R. et al. (2007), "Who are organic food consumers? A compilation and review of why people purchase organic food", *Journal of Consumer Behaviour*, Vol. 6/2-3, pp. 94-110, <https://doi.org/10.1002/CB.210>. [33]
- IPCC (2022), *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, <https://doi.org/10.1017/9781009157926>. [14]
- IPCC (2019), *Climate Change and Land: an IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*, <http://www.ipcc.ch>. [8]
- Johe, M. and N. Bhullar (2016), "To buy or not to buy: The roles of self-identity, attitudes, perceived behavioral control and norms in organic consumerism", *Ecological Economics*, Vol. 128, pp. 99-105, <https://doi.org/10.1016/J.ECOLECON.2016.02.019>. [28]
- Lusk, J. and B. Briggeman (2009), "Food Values", *American Journal of Agricultural Economics*, Vol. 91/1, pp. 184-196, <https://doi.org/10.1111/J.1467-8276.2008.01175.X>. [26]
- Nyborg, K. et al. (2016), "Social norms as solutions", *Science*, Vol. 354/6308, pp. 42-43, [https://doi.org/10.1126/SCIENCE.AAF8317/SUPPL\\_FILE/NYBORGSM.PDF](https://doi.org/10.1126/SCIENCE.AAF8317/SUPPL_FILE/NYBORGSM.PDF). [29]
- OECD (2022), *OECD Economic Outlook, Volume 2022 Issue 2*, OECD Publishing, Paris, <https://doi.org/10.1787/f6da2159-en>. [27]
- OECD (2021), *Making Better Policies for Food Systems*, OECD Publishing, Paris, <https://doi.org/10.1787/ddfba4de-en>. [1]
- OECD (2018), *Human Acceleration of the Nitrogen Cycle: Managing Risks and Uncertainty*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264307438-en>. [13]
- OECD/FAO (2022), *OECD-FAO Agricultural Outlook 2022-2031*, OECD Publishing, Paris, <https://doi.org/10.1787/f1b0b29c-en>. [3]
- Pimentel, D. and M. Burgess (2014), "Environmental and Economic Costs of the Application of Pesticides Primarily in the United States", *Integrated Pest Management*, Vol. 3, pp. 47-71, [https://doi.org/10.1007/978-94-007-7796-5\\_2](https://doi.org/10.1007/978-94-007-7796-5_2). [12]
- Poore, J. and T. Nemecek (2018), "Reducing food's environmental impacts through producers and consumers", *Science*, Vol. 360/6392, pp. 987-992, <https://doi.org/10.1126/science.aag0216>. [6]
- Searchinger, T. et al. (2018), *Creating a Sustainable Food Future: A Menu of Solutions to Feed Nearly 10 Billion People by 2050 - Synthesis Report*, <https://www.wri.org/our-work/project/world-resources-report/publications>. [11]
- Seferidi, P. et al. (2020), "The neglected environmental impacts of ultra-processed foods", *The Lancet Planetary Health*, Vol. 4/10, pp. e437-e438, [https://doi.org/10.1016/S2542-5196\(20\)30177-7](https://doi.org/10.1016/S2542-5196(20)30177-7). [17]

- Springmann, M. et al. (2016), “Analysis and valuation of the health and climate change cobenefits of dietary change”, Vol. 113/15, <https://doi.org/10.5287/bodleian:XObxm2ebO>. [18]
- Temme, E. et al. (2020), “Demand-Side Food Policies for Public and Planetary Health”, Vol. 12, p. 5924, <https://doi.org/10.3390/su12155924>. [22]
- Treich, N. (2021), “Cultured Meat: Promises and Challenges”, *Environmental and Resource Economics*, Vol. 79/1, pp. 33-61, <https://doi.org/10.1007/s10640-021-00551-3>. [20]
- van Dijk, M. et al. (2021), “A meta-analysis of projected global food demand and population at risk of hunger for the period 2010–2050”, *Nature Food* 2021 2:7, Vol. 2/7, pp. 494-501, <https://doi.org/10.1038/s43016-021-00322-9>. [4]
- Wenzig, J. and T. Gruchmann (2018), “Consumer Preferences for Local Food: Testing an Extended Norm Taxonomy”, *Sustainability* 2018, Vol. 10, Page 1313, Vol. 10/5, p. 1313, <https://doi.org/10.3390/SU10051313>. [35]
- Willett, W. et al. (2019), “Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems”, *The Lancet*, Vol. 393/10170, pp. 447-492, [https://doi.org/10.1016/S0140-6736\(18\)31788-4/ATTACHMENT/8B3A633D-E071-45DC-9684-0F022EDA80E8/MMC1.PDF](https://doi.org/10.1016/S0140-6736(18)31788-4/ATTACHMENT/8B3A633D-E071-45DC-9684-0F022EDA80E8/MMC1.PDF). [24]
- World Bank and OECD (2022), *Agriculture, forestry, and fishing, value added (constant 2015 US\$)*, Agriculture, forestry, and fishing, value added (constant 2015 US\$), <https://data.worldbank.org/indicator/NV.AGR.TOTL.KD> (accessed on 29 June 2022). [2]

## Notes

<sup>1</sup> The range reflects the mitigation potential of a scenario in which 50% of the global population adopts diets with less than 60g of animal-based protein up to a scenario in which the global adoption adopts a vegetarian diet, not accounting for land-use change (IPCC, 2019<sup>[8]</sup>).

<sup>2</sup> See Annex B on the design and implementation of the EPIC survey and on the quality of the panel of respondents.



**From:**  
**How Green is Household Behaviour?**  
Sustainable Choices in a Time of Interlocking Crises

**Access the complete publication at:**  
<https://doi.org/10.1787/2b6666663-en>

**Please cite this chapter as:**

OECD (2023), "Household behaviour and food consumption", in *How Green is Household Behaviour?: Sustainable Choices in a Time of Interlocking Crises*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/bffd1ee1-en>

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.