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## Big Changes Start with Small Steps – Understanding Europeans’ Attitudes towards H&S diets

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### Abstract

The global food system, from production to consumption and waste, places the heaviest burden on Earth’s shoulders, threatening both the natural ecosystem and the health of people. Changing our current dietary patterns is paramount and urgent, considering the worsening of existing environmental issues. Sustainable diets must become commonplace across society. The main role of this paper is to improve current knowledge regarding the attitudes of European citizens towards food and the concept of healthy and sustainable diets. The main variables analyzed are food purchasing behaviour, consumption of healthy and sustainable diets and main factors influencing the adoption of healthy eating behaviours. The data analysed is collected under the 2020 Special Eurobarometer survey, developed by the European Commission. The study found that overall respondents are willing to adopt healthier diets for them and the environment. At the same time, some important barriers need to be addressed first in order for real changes to happen. Results also highlighted important differences between countries, based mostly on their socio-economic context and reported eating behaviours. This study might serve as a starting point for further research on the subject and can guide both marketers and practitioners in the food industry who want to make sustainable diets more appealing to the general public. This paper also contributes to the latest research on food consumption behaviour during the COVID-19 pandemic.

### Keywords

Sustainability, food consumption, healthy and sustainable diets.

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### Introduction

Current global environmental concerns such as global warming, pollution or biodiversity loss are worsening on a daily basis, threatening life on Earth. For this reason, mankind must take a series of important and urgent measures. Although, many actions still cannot be fully controlled by humans, there are some small, daily habits that can have a significant positive impact on the environment. Believe it or not, some of these habits are related to our daily food consumption behaviour. If there is one thing that humans can do now to help the Earth, it is adopting a healthy and sustainable (next H&S) diet. Therefore, it is both urgent and mandatory that people change their current diet choices if we want to help preserve natural resources and ensure life on Earth for future generations. At the moment, the global food system, from production to consumption and waste, has a major negative impact on the environment, the health of society and food safety.

Considering that food production is the largest cause of global environmental change (Willett, et al., 2019), as well as the rapid transformations in food systems and diets driven by agricultural

developments, rising incomes, and increased urbanization (Heller, et al., 2020), it is vital to understand the current perceptions of citizens towards sustainability and the popular topic of H&S diets. Therefore, the main objective of this paper is to examine the public attitudes on food consumption and sustainability in Europe, highlighting key differences and similarities between European Union member states. This study looks at current food purchasing behaviours, consumption of H&S diets and main factors influencing the adoption of healthy eating behaviours for European citizens, considering at the same time the current pandemic context. The data analyzed is from the Special Eurobarometer Survey 505, entitled “Making our food fit for the future – Citizens’ expectations” (2020). The study reveals some promising results regarding the frequency of H&S diets consumption among European citizens. However, cost and availability remain the most important barriers in adopting sustainable food options in Europe. The influence of socio-economic context and gender on food consumption habits is also relevant.

The current study is organized into four sections. First section presents a review of the scientific literature on the topic of H&S diets and sustainable consumption. The second section establishes the research methodology while the third section discusses the main findings and results of the data analysis. The last section is for conclusions.

**Review of the scientific literature**

Sustainability can be achieved through the food we choose to consume daily. Gussow and Clancy introduced the term of H&S diets in 1986, arguing that encouraging food sustainability and environmental protection are critical to promoting healthy eating behaviours for humanity (Gussow and Clancy, 1986). To understand what a sustainable diet means, the agricultural, environmental, social, cultural, and economic determinants and effects of the food eaten as well as the nutritional value should be considered (Johnston et al., 2014).

As shown in Figure 1 below, H&S diet is a very complex term. Therefore, definitions vary considerably. According to Springmann et al. (2018), the concept of sustainable diets combines the challenges of creating a food system that supplies healthy diets for a growing population while reducing its environmental impacts and staying within planetary boundaries, while Johnston, et al. (2014) concluded that sustainable diets present an opportunity to successfully advance commitments to sustainable development and the elimination of poverty and food insecurity. To put it simply, sustainable food consumption refers to a type of diet that is healthy for both humans and the natural environment, having a minimal impact on Earth’s natural resources. At this stage however, definitions are multiple and there is no unanimous agreement of just what such a diet might look like on a plate (Garnett, 2014).



**Figure no. 1. The key components, determinants, factors, and processes of a sustainable diet**  
 Source: Johnston, et al., 2014, p.421

Previous consumer studies have investigated the factors that determine organic food consumption, as well as main barriers to sustainable consumer behaviour, including the understudied attitude-behaviour

gap. On one hand, some researchers have highlighted that overall consumers have started to pay more attention to what goes on their plates and some of them are willing to pay more for sustainable food products, that come from reliable sources or through environmentally friendly agricultural practices (van Doorn and Verhoef, 2011). Interestingly, some specialists went even further to suggest that consumers' concerns towards climate change have determined a radical shift in their diets and food preferences. To give a clear example, one recent online survey of British adults confirmed that respondents are aware of the relationship between food and the environment and are engaged with sustainable diet recommendations (Culliford and Bradbury, 2020). Recent research has also claimed that one of the most important consumer contributions, along with other actions such as recycling, favouring locally sourced foods, or reducing food waste, could be the transition towards a plant-based and low-meat diet, as meat has been identified the most environmentally harmful from all food products (Voinea, et al., 2020).

On the other hand, there are other studies that tend to contradict these findings. For instance, although consumption patterns may be changing, when looking at the latest obesity report across Europe results are not very promising. The GBD study estimates that, in the European Union in 2017, over 950.000 deaths were related to unhealthy diets (The Lancet, 2017), while a recent body mass index (BMI) report revealed that more than half of the European population is overweight and obese (Marques, et al., 2018). Another issue is that public awareness about the environmental impact of food production and consumption – especially when it comes to people's own food choices – is insufficient and must be increased (BEUC, 2020).

When it comes to sustainable eating, it is worth highlighting the main barriers that can hinder such behaviour. For example, Eker, et al. (2019) argued that consumers resist diet change due to reasons such as taste preferences and traditions, a lack of awareness about the link between climate change and food consumption, or ideological beliefs about human-animal relations. Furthermore, one study from the European Consumer Organisation highlighted that consumers tend to underestimate the environmental impact of their own eating habits and confirmed that price, lack of information and the challenge of identifying sustainable food options as well as their limited availability are the main perceived barriers to sustainable eating (BEUC, 2020, p. 4). At the same time, everyday consumption practices are likely to be resistant to change (Vermeir and Verbeke, 2006).

All in all, it can be concluded that while situational and product-related factors and people's eating motives (e.g., concern about health and reducing meat consumption) can facilitate environment-related food choices, other individual characteristics or eating motives (e.g., hedonic pleasure and meat consumption) can impede more environment-friendly food choices (Siegrist, et al., 2015).

### **Research methodology**

The data analysed is collected under the 2020 Special Eurobarometer survey "Making our food fit for the future – Citizens' expectations", developed by the European Commission. The survey was carried out in 2020 in all 27 European Union member states resulting a total sample of 27.237 respondents. Due to the COVID-19 pandemic, both face-to-face and online interviews were used as a research method. The variables analysed are European citizens' food purchasing behaviours, frequency of H&S diets consumption and the most important factors that influence H&S diets adoption. The data set was analysed using SPSS software.

### **Results and discussion**

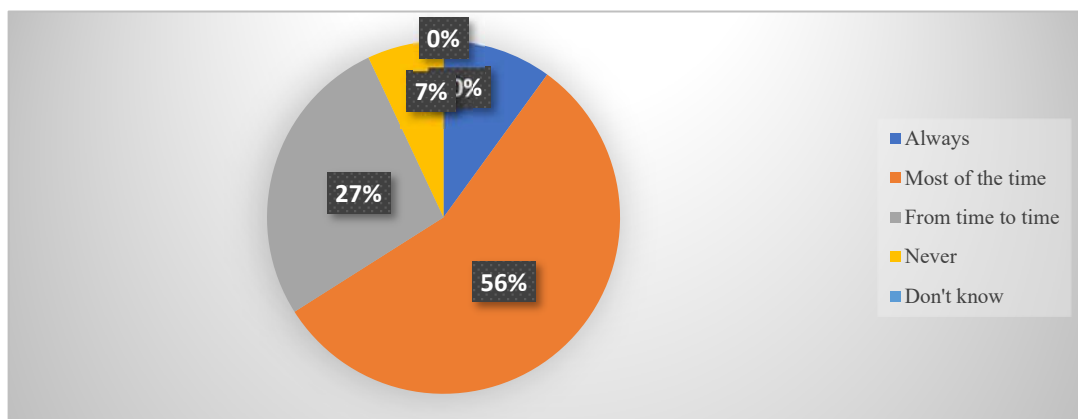
In order to assess food purchasing behaviour across Europe, respondents were asked to rank the top 3 most important factors when buying food from a list of 10 items. The top 3 most common answers among European citizens are taste (45%), food safety (42%) and cost (40%). In contrast, only around 1 in 10 respondents consider whether the item complies with their own beliefs and ethics (e.g. in terms of religion, animal welfare or fair payment of producers) (16%) or the impact of the item on the environment and climate (15%) when shopping for food. It can be argued that Europeans emphasize personal factors such as taste, the safety of the food and the cost over sustainability concerns such as the

environmental impact when buying food. Other factors mentioned by respondents are the origin of the food (where it comes from) (34%) and its nutrient content (33%). On the other hand, convenience was the least mentioned answer (9%).

When comparing results between countries, cost is more likely to be mentioned in middle income countries, such as Portugal (70%), Lithuania (61%), Latvia (60%) and Bulgaria (59%). By contrast, it is less mentioned in higher income countries (below European average of 40%), such as Italy (31%), Austria (31%), Germany (32%) and Luxembourg (32%). Although there are some differences between countries, cost was in the top 3 most mentioned answers in 19 countries. These findings add to the body of evidence that cost and affordability are important determinants in influencing people’s food choices (Barosh, et al., 2014, p. 10). Another possible explanation might be the current pandemic context, as the shopping behaviour of consumers has shifted a lot, moving towards cheaper food options.

Sustainable factors, such as the item’s impact on the environment, are the most mentioned answer in countries with high environmental awareness like Sweden (27%), Denmark (23%), Germany (23%) and the Netherlands (22%). By contrast, only 3% of Lithuanians and 4% of Latvians said they consider the item’s environmental impact when purchasing foods. When looking at another sustainability aspect, ethics and beliefs, results vary considerably between countries. For example, citizens living in Germany (31%), Denmark (30%) and Austria (30%) are almost 3 times more likely to mention this answer compared to people living in Cyprus (4%), Malta (5%) and Portugal (5%). It can be concluded that countries with high level of environmental awareness are more likely to state environmental sustainability as an influence on their food purchasing behaviour.

Next respondents were questioned about their current understanding of sustainable diets by looking at the frequency of H&S diets consumption. Using a 5-point Likert scale (always, most of the time, from time to time, never and don’t know), respondents were asked to state whether they eat a H&S diet. As observed in Figure 2 below, more than 65% of European citizens stated that they eat a H&S diet either always (10%) or most of the time (56%). Less than 1 in 10 Europeans said that they have never eaten a H&S diet (7%). These are promising results, in line with previous findings in the literature (BEUC, 2020).



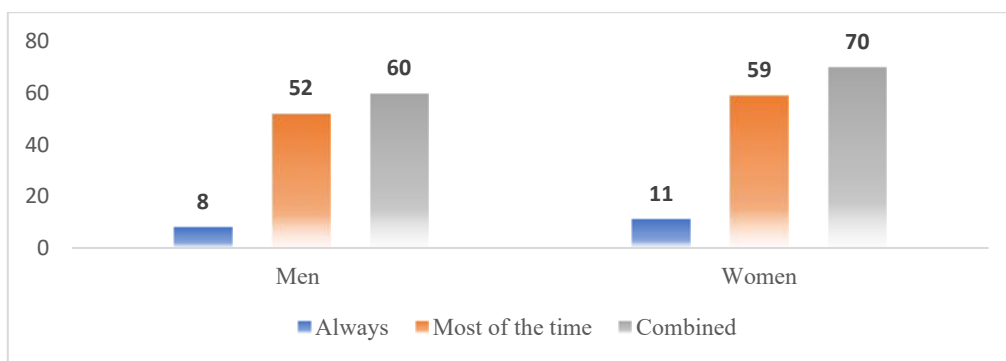
**Figure no. 2. Consumption of H&S diet across Europe**

It is worth highlighting that there are significant differences between countries. For instance, people living in the Netherlands (83%) and Finland (81%) are two times more likely to eat a H&S diet always or most of the time compared to those living in Lithuania (46%) and Bulgaria (32%). There are some possible explanations for these variations. For instance, the organic food market is more developed in Nordic and Western countries compared to the Eastern and Baltic side of Europe. This factor combined with the high purchasing power of higher income countries may result in higher sustainable consumption levels.

Interestingly, around 2 in 10 citizens from France (26%) and Bulgaria (20%) have mentioned they have never eaten such a diet. At the other end of the scale, the only two countries where no respondents declared they have never eaten a H&S diet are Sweden and the Netherlands.

However, it is difficult to compare these findings considering that food choices are dependent on particular combinations of ecological, economic and cultural factors that have developed over time (de Boer, et al., 2006, p. 272). Moreover, what constitutes a H&S diet for one culture might mean something different for another culture, considering that food practices communicate who we are in several ways and can be a symbol of personal identity, group affiliation, and cultural identity (Monterossa, et al., 2020, p. 63).

When comparing these findings across gender, as seen in Figure 3 below it can be argued that women tend to eat a H&S diet more often than men, at least at declarative level (60% vs. 70%). Previous consumer studies confirmed that ethical consumption habits are generally considered to be more feminine which could lead to males disregarding these behaviours (Culliford and Bradnury, 2020, p. 10).



**Figure no. 3. Consumption of H&S diet across Europe per gender**

When comparing variables, respondents who are more concerned about the impact on the environment when purchasing food are also more likely to declare that they eat a H&S diet always or most of the time (77%), compared to the EU average (66%). On the other hand, those who consider cost as an important factor when shopping for food are less likely to mention they eat a H&S diet (55%).

Finally, in order to assess the factors influencing the adoption of H&S diet in Europe, respondents were asked to choose the top 3 attributes that would help them to adopt a H&S diet from a list of 10 items. The most important factors for European citizens are affordability (49%), availability (45%) and clear information on food labelling regarding the product's environmental, health and social impacts (41%). Education about H&S diets would also help them, according to 29% of respondents. Other responses mentioned are "product placement in-store that facilitates selection of H&S food" (23%), "food, meals are quick and easy to prepare" (23%) and "menu guides and other practical tools" (18%).

Interestingly, almost half of all respondents mentioned that affordability would help them consider more sustainable food choices. Affordability of healthy options is the most mentioned answer in 21 countries, ranked highest in Estonia (72%), Finland (69%) and Bulgaria (66%). On the contrary, this answer is least mentioned in Luxembourg (31), France (32%) and Romania (36%). Affordability of food is likely to become more of an issue for many consumers given the expected economic impact of the COVID-19 crisis, it is therefore vital to ensure that the sustainable food choice is not the most expensive one (and that it is not perceived in that way) (BEUC, 2020).

When comparing variables, it is evident from data analysis that respondents who picked cost as one of the significant attributes when food shopping, are also more likely to say that affordability will make them consider adopting such diets.

## Conclusions

The current food system is a key driver of environmental degradation through loss of biodiversity, deforestation and pollution and the effects of climate change and environmental damage are also likely to increasingly challenge food security over the next century (Culliford and Bradnury, 2020, p. 2). Therefore, understanding the attitudes of citizens towards food and sustainability is mandatory for the successful adoption of H&S diets across society.

Overall, the study findings are promising. The results showed that the majority of respondents are eating H&S diets most of the time. At the same time, it can be argued that some countries are more likely to say that sustainability influences their eating behaviours compared to others. This study also confirmed that cost remains the main barrier to eating more sustainably as well as the main determinant of food choices.

Developing a sustainable food system to feed the growing global population is one of the major challenges of the 21st century (Culliford and Bradnury, 2020, p. 2). Considering the dramatic changes in food consumption patterns in the last 50 years, this paper calls for more actions at both local and European level in order to facilitate the shift to global sustainable food consumption and production and make sustainable eating choices affordable for everyone, especially in the current COVID-19 context. Although there is not one simple solution that will automatically shift diets towards those that are healthier, more environmentally sustainable, and more equitable at the national or global scale (Fanzo and Davis, 2019, p. 500), big changes do indeed start with small steps.

## References

- Barosh, L., Friel, S., Engelhardt, K. and Chan, L., 2014. The cost of a healthy and sustainable diet – who can afford it? *Australian and New Zealand Journal of Public Health*, 38(1), pp.7-12.
- BEUC, 2020. One bite at a time: Consumers and the transition to sustainable food. *The European Consumer Organisation*, pp.1-44. [online] Available at: <[https://www.beuc.eu/publications/beuc-x-2020-042\\_consumers\\_and\\_the\\_transition\\_to\\_sustainable\\_food.pdf](https://www.beuc.eu/publications/beuc-x-2020-042_consumers_and_the_transition_to_sustainable_food.pdf)> [Accessed 10 February 2021].
- Culliford, A. and Bradbury, J., 2020. A cross-sectional survey of the readiness of consumers to adopt an environmentally sustainable diet. *Nutrition Journal*, 19(138), pp.1-13.
- de Boer, J., Helms, M. and Aiking, H., 2006. Protein consumption and sustainability: Diet diversity in EU-15. *Ecological Economics*, 59(3), pp.267-274.
- Eker S., Reese G. and Obersteiner, M., 2019. Modelling the drivers of a widespread shift to sustainable diets. *Nature Sustainability*, 2, pp.725–735.
- European Commission: Special Eurobarometer 505 (2020). *Making our food fit for the future – Citizens' expectations*. [online] Available at: <<https://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/yearFrom/1974/yearTo/2020/surveyKy/2241>> [Accessed 5 February 2021].
- Fanzo, J. and Davis, C., 2019. Can Diets Be Healthy, Sustainable, and Equitable? *Current Obesity Reports*, 8, pp.495–503.
- Garnett, T., 2014. What is a sustainable healthy diet? A discussion paper. *FCRN*, pp.1-31.
- Gussow J.D. and Clancy K.L., 1986. Dietary guidelines for sustainability. *Journal of Nutrition Education*, 18(1), pp.1-5.
- Heller, M.C., Walchale, A., Heard, B.R. et al., 2020. Environmental analyses to inform transitions to sustainable diets in developing countries: case studies for Vietnam and Kenya. *The International Journal of Life Cycle Assessment*, 25, pp.1183–1196.
- Johnston, J.L., Fanzo, J.C. and Cogill, B., 2014. Understanding sustainable diets: a descriptive analysis of the determinants and processes that influence diets and their impact on health, food security, and environmental sustainability. *Advances in nutrition (Bethesda, Md.)*, 5(4), pp.418–429.

- Marques, A., Peralta, M., Naia, A., Loureiro, N. and de Matos, M.G., 2018. Prevalence of adult overweight and obesity in 20 European countries. *European Journal of Public Health*, 28(2), pp.295–300.
- Monterrosa, E.C., Frongillo, E.A., Drewnowski, A., de Pee, S. and Vandevijvere, S., 2020. Sociocultural Influences on Food Choices and Implications for Sustainable Healthy Diets'. *Food and Nutrition Bulletin*, 41(2\_suppl), pp.59S-73S.
- Siegrist, M., Visschers, V. and Hartmann, C., 2015. Factors influencing changes in sustainability perception of various food behaviors: Results of a longitudinal study. *Food Quality and Preference*, 46, pp.33-39.
- Springmann, M., Wiebe, K., Mason-D'Croz, D., Sulser, T.B., Rayner, M. and Scarborough, P., 2018. Health and nutritional aspects of sustainable diet strategies and their association with environmental impacts: a global modelling analysis with country-level detail. *Lancet Planet Health*, 2(10), pp.451-461.
- The Lancet, 2017. Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries, 1990-2017. *Global Burden of Disease Study 2017*, 390(10100), pp.16-22.
- van Doorn, J. and Verhoef, P.C., 2011. Willingness to pay for organic products: differences between virtue and vice foods. *International Journal of Research in Marketing*, 28(3), pp.167-180.
- Vermeir, I. and Verbeke, W., 2006. Sustainable Food Consumption: Exploring the Consumer "Attitude – Behavioral Intention" Gap. *Journal of Agricultural and Environmental Ethics*, 19, pp.169–194.
- Voinea, L., Popescu, D.V., Bucur, M., Negrea, T.M., Dina, R. and Enache, C., 2020. Reshaping the traditional pattern of food consumption in Romania through the integration of sustainable diet principles. A qualitative study. *Sustainability*, 12(14), pp.1-25.
- Willett, W., Rockström, J., Loken, B. et al., 2019. Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet Commissions*, 393(10170), pp.447-492.