



University of
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Dalia Svidinskaite

How does a concern for climate change shape meat consumption behavior?

A qualitative inquiry

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AUTHOR: Dalia Svidinskaite

SUPERVISOR: Reidar Staupe-Delgado

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Table of contents

| | |
|--|-----------|
| Summary | 5 |
| Acknowledgments | 6 |
| 1. Introduction | 7 |
| 1.1. Delimitations of the thesis..... | 10 |
| 1.2. Structure of the thesis..... | 11 |
| 2. Literature review | 12 |
| 2.1. Food security and climate change | 12 |
| 2.2. Meat production and climate change | 14 |
| 2.3. Meat production and consumption in Norway..... | 18 |
| 2.4. Summary and analytical implications | 23 |
| 3. Methodology | 24 |
| 3.1. Research strategy..... | 24 |
| 3.2. Methods..... | 26 |
| 3.3. Access to data and data collection..... | 27 |
| 3.4. Reliability and validity | 32 |
| 3.5. Research ethics..... | 33 |
| 4. Findings | 34 |
| 4.1. Respondents' overview | 35 |
| 4.2. To what extent does climate change shape people's attitude towards meat consumption? .. | 37 |
| 4.3. Which factors determinine people's preferences when choosing meat products?..... | 40 |
| 4.4. How could people be motivated to consume less meat? | 43 |
| 5. Discussion | 46 |
| 5.1. What would motivate people to eat less meat? | 47 |
| 5.2. What is the role of non-meat alternatives?..... | 49 |

| | |
|---|-----------|
| 5.3. What is the role of the culture? | 53 |
| 5.4. Creating new habits | 54 |
| 6. Conclusion | 56 |
| References | 58 |

Summary

Meat industry has a huge negative impact to the environment. As reducing the consumption of meat is seen as one of the ways to reduce the climate change, international and local institutions call for changes in humans' diets with less animals-based products. The purpose of this study is to analyze and get knowledge about people's eating habits and what are the factors that play a key role when choosing meat and non-meat products. Considering the negative impact of this industry to the climate, the paper is looking to what extent climate change shapes people's attitude towards meat and what would motivate the society to consume less meat.

The findings of this study show that society lacks knowledge about the analyzed topic as many are not aware of meat industry's negative impact to the environment. Giving more attention on the media could increase the society's awareness and boost the popularity of diets that include less animals-based products. Non-meat alternatives also play an important role in meat reduction process. As findings show, consumers often find it difficult to find enough variety of non-meat alternatives in the food-stores, restaurants and canteens. It is also seen that prices of meat alternatives are just as high or even higher than the real meat, so consumers often choose the cheaper option. It is seen that many factors should be examined and understood, in order to achieve reduced consumption of meat. It is necessary to look at the analysed phenomena through the wider perspective; thus, the importance and role of habits as well as cultural differences are analysed in this study.

Acknowledgments

This thesis marks the end of my master studies in the University of Stavanger, it was an interesting journey which taught to me to think differently. This thesis was initiated from my big love to animals and nature. I wish that we all can do a little bit more to protect them.

I want to thank my family back in my home country for supporting me, we were not able to see each other since the start of the pandemic and I miss you very much. I want to thank my supervisor Reidar Staupe-Delgado for the guidance, you were very helpful and encouraging. Thank you those who agreed to be a part of my interviews. Finally, I want to say thank you to my René, you are always here for me.

Dalia, 2021

1. Introduction

“I want you to act as you would in a crisis. I want you to act as if our house is on fire. Because it is.” (G. Thunberg, climate activist)

Nowadays the present world more than ever faces problems related to the global climate change. The international Paris Agreement was signed in 2015 to fight the temperature raise up to 2 degrees Celsius and put even more effort to limit it to 1,5 degrees Celsius. It is meant to accelerate transitions towards low carbon future and draw a new course in the global climate effort. The Paris Agreement also aims to make countries stronger and increase their ability to deal with climate change (United Nations, 2015). In order to reduce greenhouse gas emissions, all member countries should give their best effort and take active actions towards transitions to low carbon future. As world population and energy demand is constantly growing, this is becoming a difficult task to fulfill and it may lead to extreme challenges for future generations, if the transitions would not go fast enough. As time is not our side, the transitions should happen now and affect nearly every sector.

Climate change has a direct effect to human lives and health. This includes the essential things to humans as a clean air, safe drinking water, safe shelter and available food supply (World Health Organization, n.d.). Climate change is dangerous to the environment and brings the biggest environmental challenges our species have ever seen. This includes harmful impact to the wildlife, world's water systems and losing of coral reefs. It is going to bring higher level of wildfires and some regions could experience longer droughts or increased number, duration and intensity of tropical storms (NASA, 2020).

One of the sectors which produce huge amount of greenhouse gas emissions is food production and other linked processes that provide the final product. Agriculture is known to have the variety of negative effects on the environment - starting from food production and transportation worldwide, ending up with people's eating habits, as all those factors have a direct impact to the planet and contribute to the climate change.

Food is an inseparable thing to human beings. As some of the sectors polluting the air with greenhouse gas emissions could be closed or improved by modern technologies, food sector is one

of the fields that cannot be eliminated. As population in the world is constantly growing, the food demands every year grows rapidly. The negative consequences as huge food waste problem appears after over-buying, over-production and spoiled food in rich countries. Nevertheless, the whole market could be improved by regulating the way food is produced, implying new stricter production policies, or suggesting the changes in consumers' diets.

Majority of food production's negative impacts to the environment is associated with meat production. It is argued that everything people eat affects the environment, but the food from animal sources leaves the greatest negative footprint. Food production from livestock has various environmental effects on the planet and there are numerous of publications calling for changes in humans' diets with less consumption of animal products. Even though plant-based diet popularity is growing, it is still a challenge to a large number in the society to reduce consumption of meat. It is known that for many around the globe, it is one of the most important sources of nutrition and the demand of meat is only growing. This, unfortunately, comes with negative environmental effects as huge amount of greenhouse gas emissions and increasing numbers of agricultural land and freshwater use (Ritchie and Roser, 2019). The production of meat is growing world-wide, and it does not only have impact to climate change, but also directly contributes to certain diseases to human beings (Mcmichael et al., 2007).

One can argue that the social research is built on the research questions. These questions should define the scope of the study and going to determine what is going to be studied, to what extent and in which way it is going to be studied (Blaikie & Priest, 2019: 67-68). As it is seen, meat and other animal-based products contribute to high air pollution, huge amounts of land and water use, as well as reduction of the biodiversity. Taking in consideration that reduced consumption of livestock products is one of the ways to create a positive effect to the environment, it is important to analyze the ways it can be done. Hence, this thesis is investigating what lies behind people's preferences and choices when selecting meat and non-meat products. It can be argued that decisions people make daily do have a great impact to the environment, their health and general well-being. As it is argued that meat industry has a huge impact to climate change, the first research question is:

To what extent does climate change shape people's attitude towards meat consumption?

Even though plant-based diet popularity is growing, it is still a challenge to a large number in the society to reduce consumption of meat. It is also seen that in western world meat production is increasing and expected to grow in the future. So, to gain a better knowledge of what lies behind that, the second research question developed in this study is:

Which factors determine people's preferences when choosing meat products?

This study is looking at the factors determining people's decisions as well as which circumstances can make people to eat less meat. It is thus critical to find the key elements which could engage people to change their eating habits. To gain knowledge about this, the last research question is:

How could people be motivated to consume less meat?

According to United Nations experts, shifting to plant-based diet could be one of the ways to help fighting climate change. Plant-based based diet is seen as one of the ways to save the environment (IPCC, 2019). Ecologist Hans-Otto Pörtner, co-chair of IPCC group, working on impacts, adaption and vulnerability declares:

We don't want to tell people what to eat. But it would indeed be beneficial, for both climate and human health, if people in many rich countries consumed less meat, and if politics would create appropriate incentives to that effect (Schiermeier, 2019).

Even though the claims calling to reduce consumption of animal-based products are only based on recommendations, on the present environmental conditions people should raise their concerns and carry responsibility for the consequences their daily choices cause for the environment. It is thus decisive to learn how new positive eating habits can commit to a cleaner place to live. It is also important to note that this could be beneficial not only for nature, but for people's health too. Hence, this thesis aims to get a wider knowledge about consumers' decisions when choosing meat-non meat products, to obtain a wider knowledge of what implications could make them change their eating habits, as well as discuss the arising dilemmas and paradoxes in analyzed social phenomena. While answering developed research questions, this thesis will hopefully contribute with the knowledge that can be useful for society, policy makers and people working within food industry.

1.1. Delimitations of the thesis

Since this study does not cover all the areas touched in this research study in details, it is thus important to delimit the study and show what is *not* covered in this thesis. This may work as an inspiration for the further research studies.

The problem of climate change is very broad and touches different fields. This study is not explaining deeply what climate change is, only breathily presenting the threats by climate change that environment is facing. This thesis is looking at food sector and concentrate mainly on the meat industry. This thesis is looking at the meat's negative footprint to the environment, it does not cover the harm done to the environment by other type of food, only the general comparisons are given. The focus of this study is given to analyze what lies between people's choices and preferences when choosing meat/ non-meat products and what would motivate them to eat less animals-based food. This study does not go deep in the analysis of the products as plant-based meat, insects-meat, lab-based-meat or others, it rather presents the general role of non-meat alternatives in the analysed topic.

This study also has geographical boundaries as all the interviewers live in Rogaland county. When all interviewees live in the same area, it can be argued that they theoretically have the similar access to food shops, farmers products, they live in the same climate zone and are surrounded by the similar social environment. Taking the case of Rogaland means that big part of Norway is eliminated, however, to analyse the whole country, would require much bigger scale of the study.

This study has limited time boundaries, as there is a set up timeline for master thesis writing. Time limitations provide an ability to interview only limited number of respondents. Without the time pressure, it would have been possible to interview larger amount of people and get a deeper and wider understanding of the analysed phenomena.

The last delimitation of this study is that all respondents' diets include meat. It was decided not to interview people who already do not eat meat, as it may imply that they are already aware of the problem. By excluding vegetarians and vegans, all attention is given to those who still eat meat, because this study aims to gain knowledge about the reasons choosing animal-based diets and which

factors would make them switch to more plant-based diets. Future studies may analyse the part of people who were excluded from this study. For example, interviewing vegans and vegetarians could contribute to the knowledge about what were the factors that made them choose the diet without meat and how it affected their quality of daily life and health.

1.2. Structure of the thesis

The structure of this paper is as follows:

Chapter 2 is a literature review that presents the existing literature on analyzed phenomena. It provides the context of research area and presents statistics regarding meat production and consumption in the world and in Norway. There are numerous publications covering this topic, so it was decided to pay most attention to international organizations which are raising concerns about the growing consumption of meat. This chapter thus shows the urgent need of society to reconsider their eating habits to contribute to the welfare of the environment and people's health.

Chapter 3 is a methodology part where the whole research process is presented. It includes research strategy, techniques used to collect and analyse data, the detailed explanation about the interviews process, reliability and validity of the research, and finally – research ethics.

Chapter 4 presents the findings from the 26 collected interviews. The chapter is structured within the research questions and shows the patterns found in the interviewees' answers.

Chapter 5 is a discussion part which analyzes the answers from the interviews and what do they imply for the research questions. Discussion chapter is reflecting on the wider perspective of the analyzed topic and illustrates different factors which play a role in people's dietary choices. This chapter also show which paradoxes and dilemmas people face daily while making decisions about food.

Chapter 6 is a conclusion which summarizes the study and presents the final implications based on the findings. Some further research suggestions are also presented in this part.

2. Literature review

Meat production is one of the widely discussed topic making its way on the environmental agenda. There are numerous of publications discussing negative environmental footprint of this industry and various scientific data bases are full of the articles, projects and reports related to this social study. For instance, the search of key words “meat production”, “environmental impact” in Science Direct journals & books database, gives more than thirty-eight thousand results. Search terms “meat production”, “environmental impact”, “Norway” provides more than four thousand results. This shows the high level of concern this study arises and every year it gets even more attention between the public society. This chapter is thus looking at the existing literature, related to the analyzed phenomena.

Firstly, this chapter covers the connection between food security and climate change, showing the primary reasons to study this topic. Secondly, it examines the biggest international organizations, which are raising concerns about people’s eating habits. European Union, United Nations, World Health Organization and other large institutions call for changes in human diets with less meat both because of health and environmental reasons. Lastly, as this thesis is analyzing eating habits and preferences of people living in Norway, the present position of Norway is presented too. The focus is given to Norwegian meat production statistics as well as local institutions position about the less-meat diets implementations.

2.1. Food security and climate change

According to Food and Agriculture Organization, food security is described as “a situation that exists when all people at all times have physical, social, and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996). It is though reported that food security is already affected by the increasing temperature around the globe. According to the United Nations Food and Agriculture Organization (FAO):

Climate change negatively affects the basic elements of food production, such as soil, water and biodiversity. More broadly it affects all four dimensions of food security: food availability, food accessibility, the stability of the food supply and the

ability of consumers to use food, including food safety and nutritional value (Sweet, 2014: 66).

Climate system, ecosystems, food system, food security and socio-economic system are linked with each other (figure 1.) As it can see from the figure, all these different systems work in different levels and scales on the local and global level. Availability of food, economically and physically accessibility of food, utilization and stability of those dimensions constructs food security (FAO, 2015). It is thus argued that food security decreases when “the food systems are stressed” (Gregory et al., 2005: 2141). It can also be claimed that food security is leading to human’s well-being and has indirect link with the climate change and ecosystems (IPCC, 2019). Climate change affects the food security “through increasing temperatures, changing precipitation patterns, and greater frequency of some extreme events” (IPCC, 2019: 439).

In 2015 all United Nations member states adopted 17 sustainable development goals (SDG). Those goals are meant to take active actions to end poverty, protect the planet people live in and to make everybody’s life better (United Nations, n. d.). SDG 2 – zero hunger – adopted targets to fight against hunger and make concrete plans so that people would have access to nutritious food. The climate change is seen as one of the dangers for ensuring enough food, thus one of the targets is to maintain ecosystems, “that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality” (United Nations, n.d.).

In 2020 Food and Agriculture organization of the United Nations, together with International Fund for Agriculture development, Unicef, World Food Programme and World Health Organization published “The Brief to the State of Food Security and Nutrition in the world 2020” (FAO et al., 2020), which is analyzing the challenges and obstacles in achieving SDG 2. According to the latest statistics, which are measured before COVID-19 pandemic, nearly 690 million people, or 8.9% of the world’s population are undernourished. After COVID-19 these number are expecting to increase, and latest economic outlooks suggests that this pandemic crisis may add 83 to 132 million people globally. The statistics of 2019 also imply that 25,9% of world population lives in hunger (FAO et al., 2020: 7-8). The present food consumption hides high costs related to people’s health and the climate change; thus, it is empathized that the “adoption of healthy diets that include

sustainability considerations can significantly reduce these hidden costs, generating important synergies with other SDGs” (FAO et al., 2020: 9).

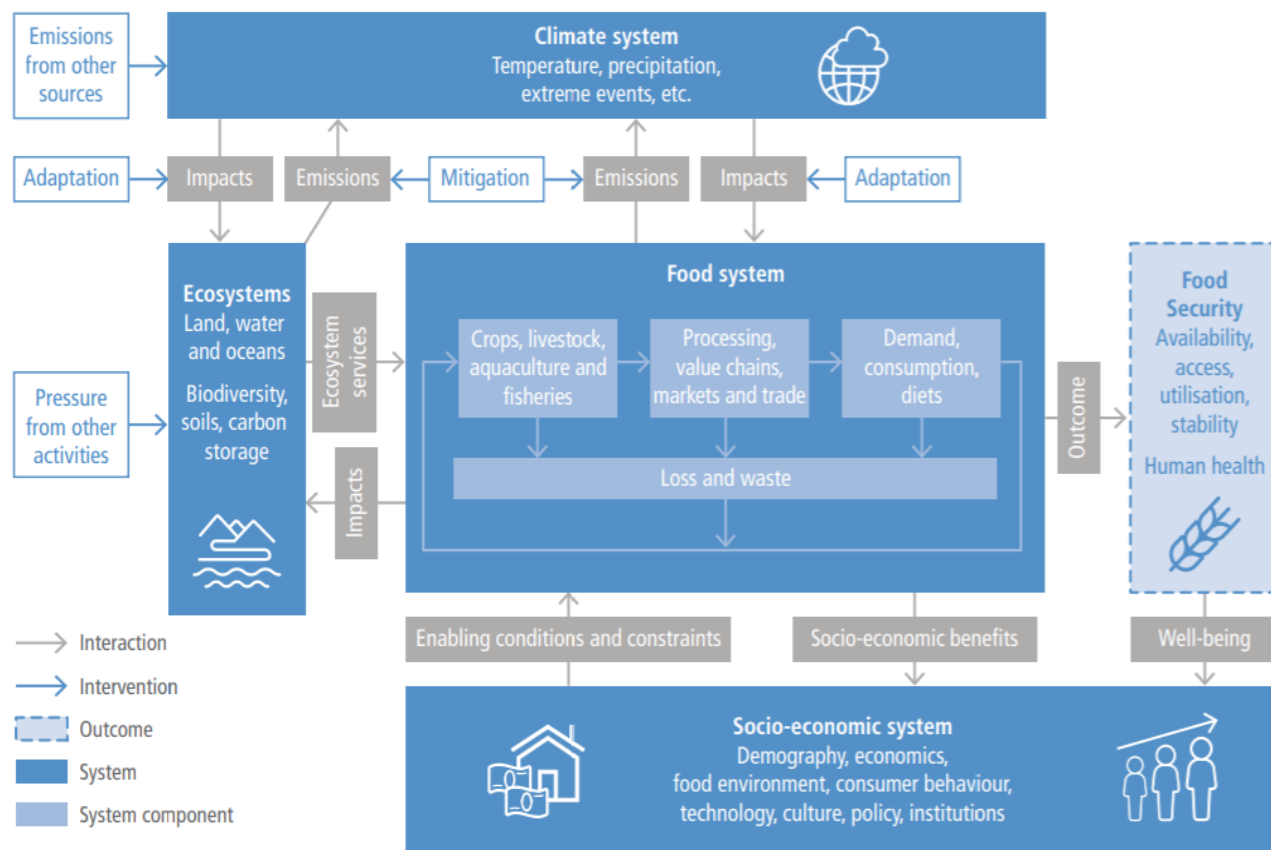


Figure 1. Connections between the climate system, food system, ecosystems and food security.

(Source: IPCC, 2019: 441)

2.2. Meat production and climate change

Meat is described as food, having the greatest negative environmental footprint (figure 2.). This is caused by inefficiency of animals converting feed to meat, since around 75-90% of the energy consumed is required for body maintenance are lost in manure, together with the by-products as skin and bones (Röös et al., 2013). So, it can be seen that in an average diet meat is responsible for 56,6% GHG emissions. The second biggest part of emissions which are 18,3%, also come from animal-based products – dairy. At the meantime, it can be seen that other type of food contributes to a much lower amount of GHG emissions in an average diet: beverages – 5,9%, fish and seafood

– 5,8%, eggs – 2,8%, vegetables – 2,6%, grain products – 2,1%, fruits – 1,6% and 4,3% of other type of food (Center for Sustainable Systems, University of Michigan, 2020).

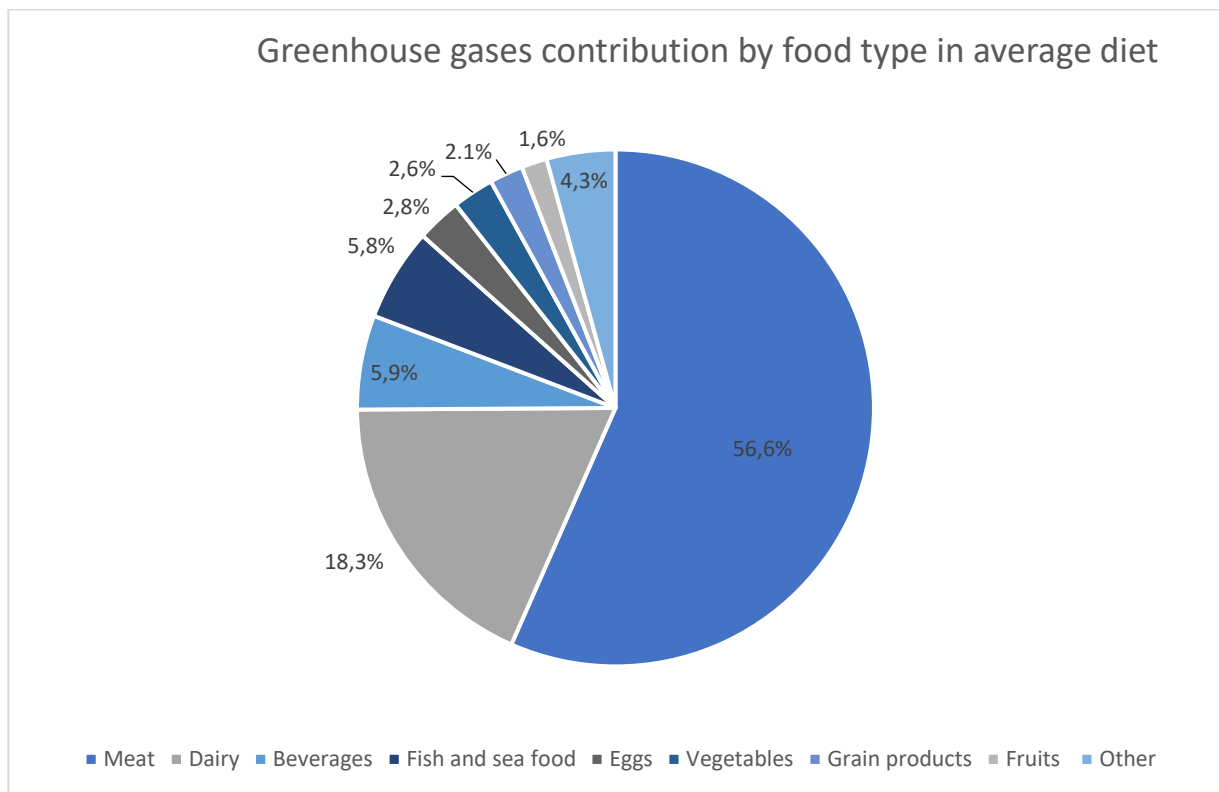


Figure 2. Greenhouse gases contribution by food type in average diet. (Source: Center for Sustainable Systems, University of Michigan, 2020)

Big attention in the research agenda gets growing beef consumption. Scientists highlights the need of reduction of beef in people’s diet. Beef is characterized as the least efficient food to produce, in consideration of a “feed input to food output” (Ranganathan, 2016: 6). It is claimed that 25 kilograms of food is required to produce one kilogram of beef. At the meantime, 15 kilograms for lamb/mutton, 6,4 for pork and 3,3 kilograms of food for 1 kilogram of poultry. Protein efficiency of beef is 3,8%, which means that only 3,8 % is in an effective way turned to an animal product, the rest 96,2% are lost during conversion (Alexander et al., 2016).

Not only beef has very low conversion efficiency, but it also uses much greater amount of land and water, as well as pollute highest amount of greenhouse gas emissions per unit of protein than any other food. Besides that, beef production often requires clearing the forests or woody savannas.

Climate change food calculator demonstrates the diet's footprint to the environment. Taking a case of a person eating 1-2 servings of beef per week shows that over entire year it contributes by 604 kilograms to the person's annual GHG emissions. The amount of GHG emissions is equal to driving 2,482 kilometres or heating the average home in United Kingdom for 95 days. This amount of beef consumption also requires 1,735 m² land which is equal to 6 tennis courts. To show difference between beef and vegetarian product, beef can be compared with tofu. So, consuming 1-2 servings a week of tofu is counted to add 12 kilograms to person's annual GHG emissions. It is equivalent to driving 51 kilometres or heating the average home in UK for 2 days (Stylianou et al., 2019). This example shows the dramatic difference between animal-based and plant-based food GHG emissions.

Nevertheless, consumption of meat worldwide is estimated to grow by 95% in the period between 2006 and 2050. In the climate change and environmental protection perspective, reduction of beef could be an important element to reach the Paris Agreement's temperature targets, in line with international goals (Ranganathan, 2016).

In 1990 global meat production was accounted for 229 million tons and is expected to grow up to 465 million tons in 2050 (Steinfeld & FAO, 2006), so feeding the growing population could be a challenging task for future generations. Looking at the present statistics, there are more than 340 million tons of meat produced every year, which are three times more than the amounts that have been produced 50 years ago (Ritchie & Roser, 2019). The higher consumption of meat is seen in the richer countries. So, as the world population and income level are growing, meat production is rising too.

In 2017 European Union has released the paper "The Future of Food and Farming – for a flexible, fair and sustainable Common Agricultural Policy." It gives its highest focus on the challenges that agriculture and rural areas are facing. As climate change gives pressure, European Commission claims that Common Agricultural Policy should reflect higher ambitions to use resources more efficiently, raise the environmental care and climate action. It also aims to encourage the use of modern technologies, to take the citizens' concerns about health, nutrition, food waist and animals' wealth. The paper has a purpose to create an EU level platform which can help farmers cope with

the risks which come from uncertainty of climate, uncertain market and other related risks (European Commission, 2017).

United Nations are also raising concerns about meat production and consumption. That includes both people's health, environmental impact and food security. As population and food demand is constantly growing, this is going to be a challenging task to simultaneously provide enough food and protect the environment. In accordance with that, United Nations created The Intergovernmental Panel on Climate Change (IPCC) body for assessing the science related to climate change. It is claimed that around 21-37% of the total greenhouse gas emissions are from the food industry. This includes agriculture, usage, transport, retail and other areas related to this industry. From these numbers, 9-14% of greenhouse gas emissions come from crop and livestock. It is thus claimed that reducing those emissions could highly contribute to climate change mitigation.

The IPCC (2019) special report on climate change and land also highlights the great opportunities of reducing greenhouse gas emissions by changing people's diet. This can play an important role in solving both health and climate change related issues. Adjusted diets need to include more fruits and vegetables, grains, pulses, nuts, seeds and less of animal sourced food. It is also mentioning the potential of meat analogue as imitation meat from the plants or cultured meat, which in theoretic perspective can be produced in a more effective and faster way as the usual meat (Kadim et al., 2015). However, at this moment carbon footprints of these products are uncertain (IPCC, 2019).

It is critical that people eat much more than the average daily protein requirements and thus the consumption exceeds nutritional needs. Nevertheless, animal-based diets is still growing. Plant-based proteins use does not grow as high since meat is highly valued between consumers. This trend is mostly seen between the wealthy countries' citizens. (Ranganathan et al., 2016).

"The Brief to the State of Food Security and Nutrition in the world 2020" report also shows that the current people's diet patterns have huge cost to the environment. So, adopting any alternative healthy diet patterns, would significantly contribute to the reductions of social cost of greenhouse gas emissions in 2030 reaching 41-74% (figure 3.). The four suggested diets, that consists of less or no meat are flexitarian diet, which includes animal-based food from small to moderate amount; pescatarian diet which includes fish but no other meat; vegetarian diet which is plant-based diet with

no fish or meat, but moderate number of eggs and dairy; and vegan diet which consists of only plant-based products. It is highlighted that some of these diets are not most healthy or nutritionally rich, but the focus is given to show the variations of diets which includes aspect of environmental sustainability. Nevertheless, it is clear that the adoption of plant-based diets would cause a significant reduction of the social cost of greenhouse gas emissions by 41-74% in 2030 (FAO et al., 2020).

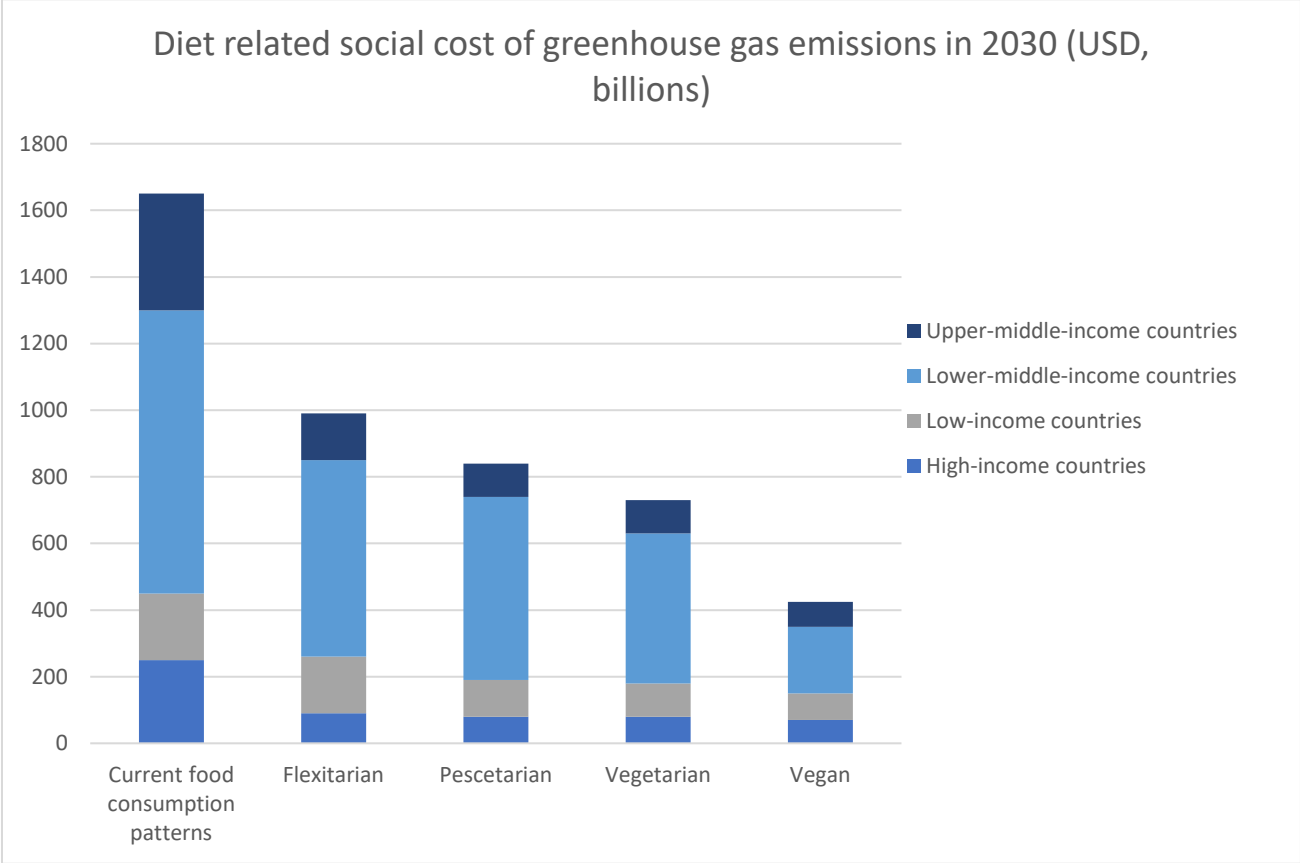


Figure 3. Diet related social cost of GHG emissions in 2030, USD, billions. (Source: FAO et al., 2020)

2.3. Meat production and consumption in Norway

Norway cooperates with European Union (EU) in the field of agriculture (Ministry of Foreign Affairs, 2015). EU has general health rules regarding the trade of introduction of meat products for human consumption into EU (European Commission, n.d.). European Food Safety Authority, where Norway also takes part, claims that everyone should have a right to nutritious, sufficient as well as

safe food, at the same time policy makers should promote sustainable agriculture. This means that farming should not be only providing food but at the same time should mitigate climate change and minimize negative environmental impact (EFSA, 2019).

“Greenhouse Gas Emissions 1990-2018, National inventory report” (2020) in Norway shows that around 8.5% of the total country’s greenhouse gas emissions come from agriculture. The biggest producer of greenhouse gas emissions are the agricultural soils and enteric fermentation that come from domestic animals. In 2017 Norway established a technical committee on agriculture emissions. This was done in order to “enhance the knowledge about possible ways to improve the emission inventory in order to better reflect mitigation measures, and to compare methodology used with methods in other similar countries” (Greenhouse Gas Emissions 1990-2018, National inventory report, 2020: 16).

Statistics

According to the Food and Agriculture Organization of the United Nations (2020), in period of 1961-2018 meat¹ production in Norway was constantly growing and increased more than 2,6 times. While in 1961 amount of produced meat were 137,659 tonnes, in 2018 it reached 361,001 tonnes (figure 4). It can be seen that the period in previous decade (2010-2018) also shows the increase, but not as dramatic as the years before. Additionally, the latest data by the Statistics Norway (Statistisk sentralbyrå, 2020) shows that meat production in the period of 2018-2019 decreased – 0,3% of pig-meat, 3,7% of poultry, 2,7% of cattle and 10% of sheep. It is argued that even though the total meat production from 2019 is higher than in 2014, the progress is still positive (Statistisk sentralbyrå, 2020).

¹ According to this data, meat definition includes cattle, poultry, sheep/mutton, goat, pig-meat and wild game.

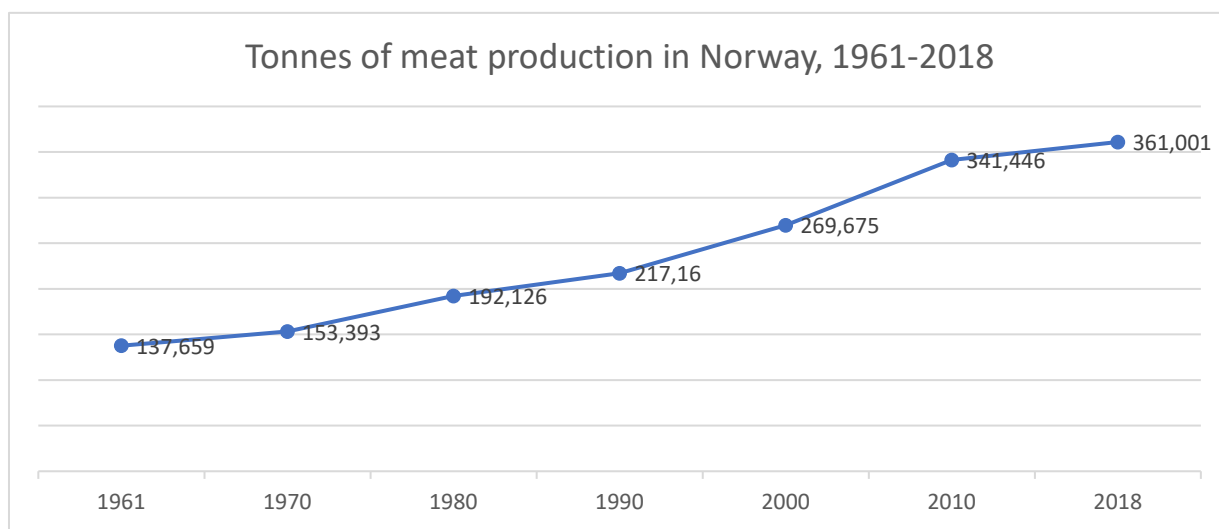


Figure 4. The amount of produced meat in Norway in the period of 1961-2018. (Source: UN Food and Agriculture Organization, FAO, 2020).

According to Animalia, Norwegian Meat and Poultry Research Centre, in 2019 Norwegians ate 51,6 kilograms of meat per person per year. It is said that the numbers remain stable since 2018. The most eaten meat in 2019 were pigs, followed by cattle and poultry. In 2019, 208,852 tons, or 39,1 kilograms per person per year of red meat were consumed in the country. It is indicated that these are the lowest numbers since 1999. Knowing the enormous environmental footprint of red meat to the environment, this is a positive direction in the country. On another side, the white meat consumption is growing and increased four times during the last 30 years (Animalia, 2020).

UN Food and Agriculture Organization presents global beef production around the world. In 2018 89,396 tonnes of beef was produced in Norway. Looking at the overall beef production in 2018, Norway is between those countries, producing less beef than many other countries globally (figure 5). The world's major beef producer is United States (12,22 million tonnes) followed by China (6,46 million tonnes) and Brazil (9,9 million tonnes). Even though Norway does not produce the same high amount of beef, from 1961 to 2000 production of it was only growing. In 2010 the level of produced beef declined almost reaching the same numbers as in 1990, however, in 2018 it has increased again (figure 6).

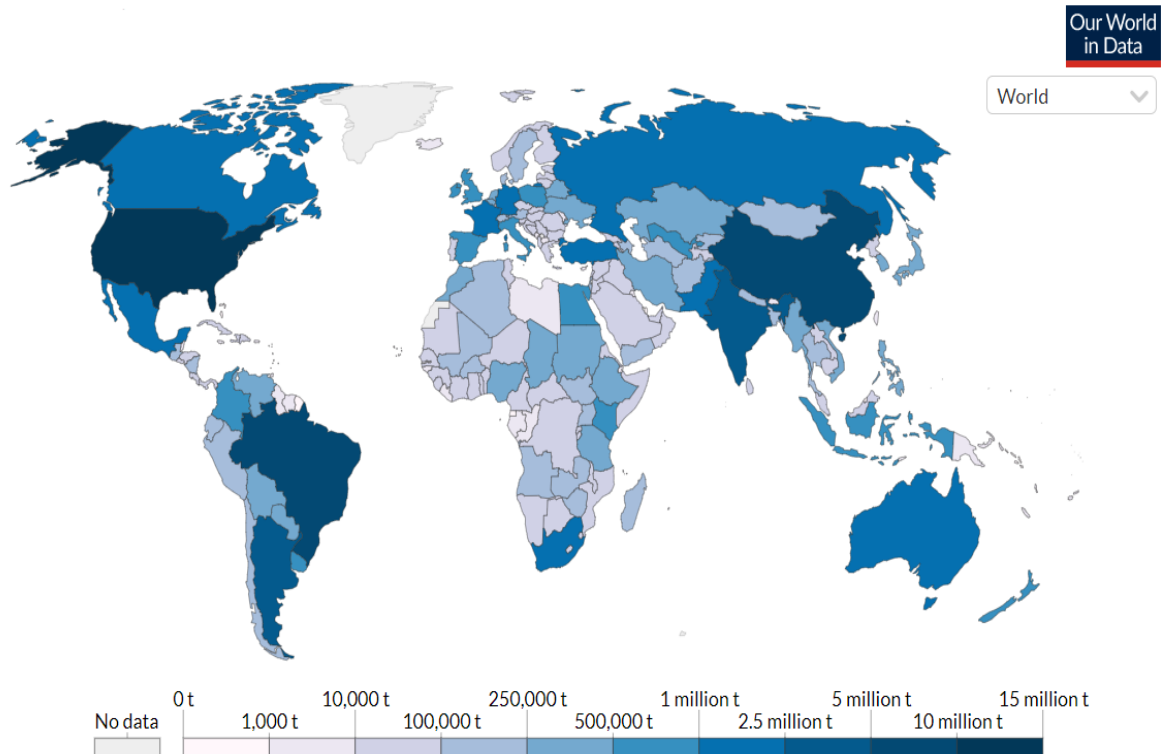


Figure 5. Beef production by country, 2018. (Source: Our World in Data by FAO, 2020, <https://ourworldindata.org/meat-production>)

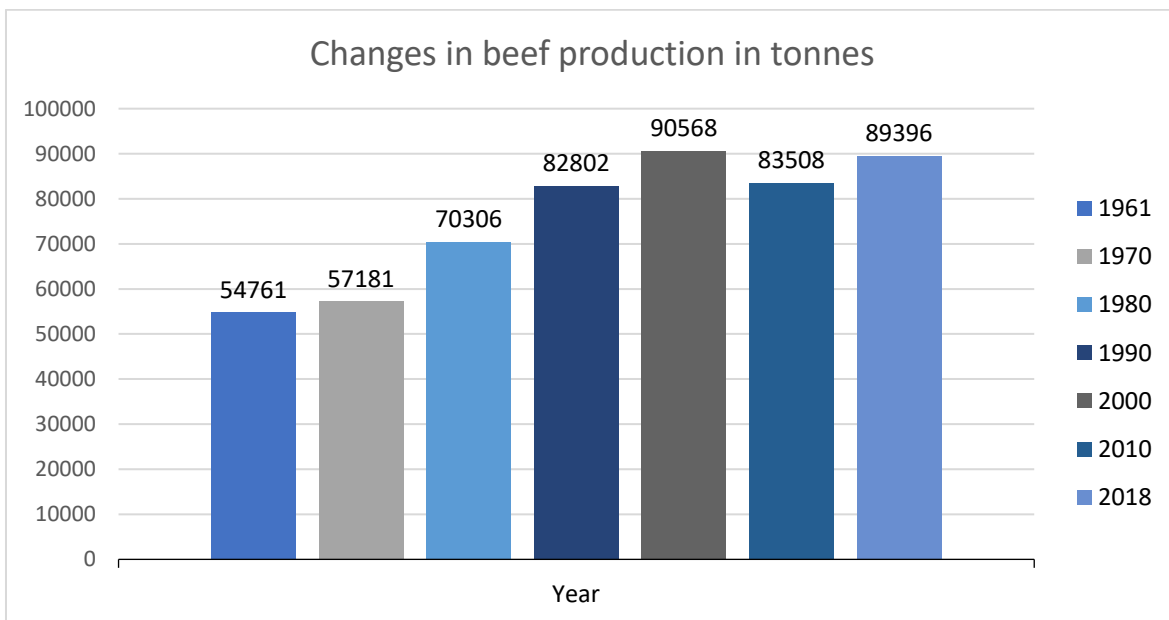


Figure 6. Beef production in Norway 1961 – 2018. (Source: Our World in Data by FAO, 2020)

As other international institutions, Norwegian health authorities also promote the varied diet with many vegetables, fruits and berries, as well as whole grain and fish. Additionally, it is advised to use less processed meat, red meat and salt with sugar. Health authorities claim that 14% of people stick to those recommendations and 56% of society follows the recommendations to eat less red and processed meat (Nysted et al., 2019). It is also highlighted that Norwegians prefer local versus imported meat. The research regarding people’s opinion about the Norwegian industry shows that majority believes that Norwegian meat industry has sustainable production and produce sustainable meat products (figure 7). People also believe that local meat production is in line with ethical principles and only a small part think opposite. This can be an implication that people do not have a critical view towards meat industry and choose to look behind the negative footprint it leaves.

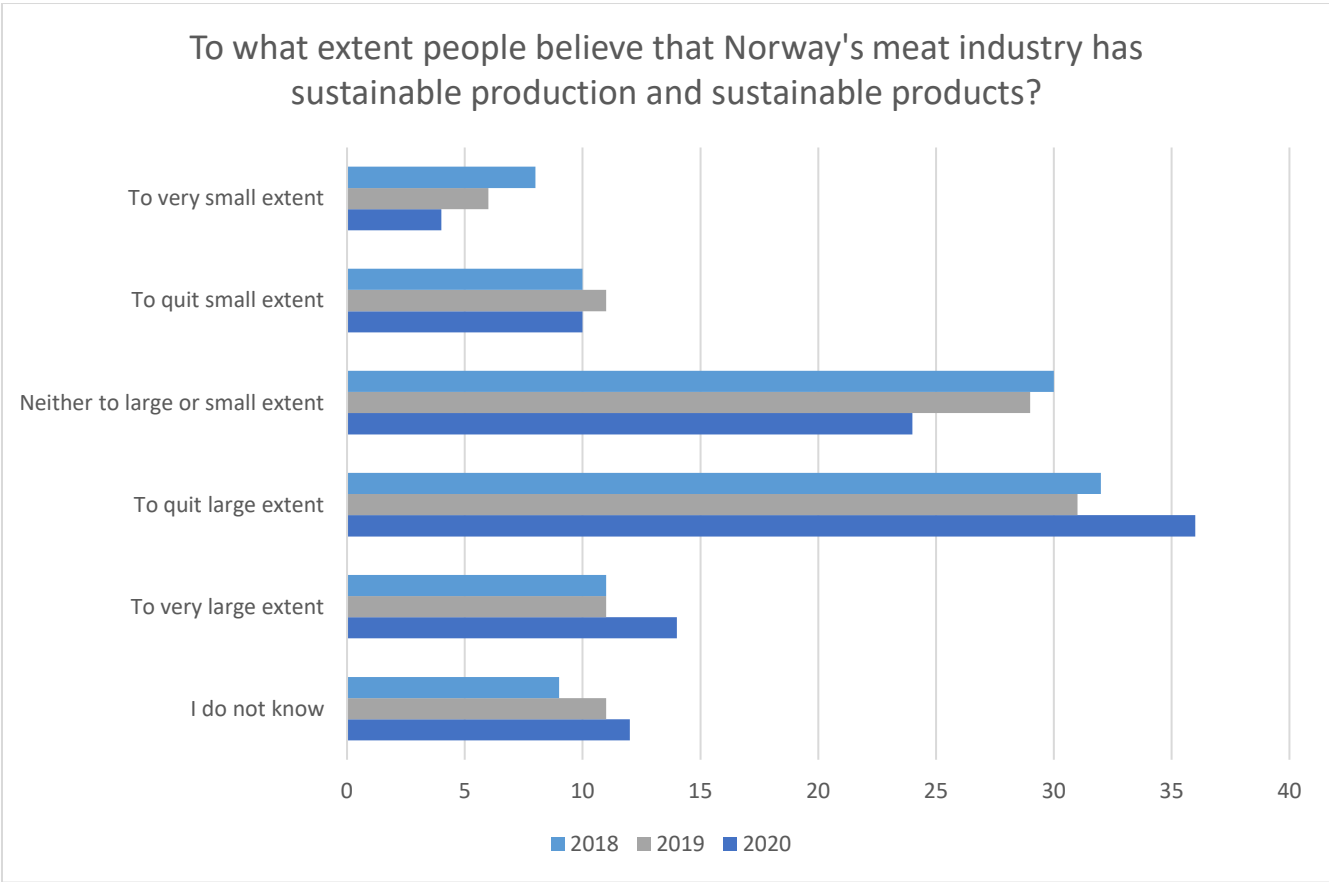


Figure 7. People’s opinion regarding the sustainability of Norway’s meat industry. (Source: *Animalia*, 2020)

2.4. Summary and analytical implications

As it is seen from the analyzed literature, meat industry is one of the activities having a great negative impact to the environment. From all variety of food, meat is seen as having the greatest negative footprint as it requires huge amount of water, land and is responsible for highest GHG emissions from the average food diets. Another negative aspect of high meat consumption is health issues. It is argued that big amount of red and processed meat is not good for people's health and can increase the risk of getting certain diseases (Cross, 2012). High meat consumption worldwide also raises the ethical questions of meat eating as many in the society raise their concerns about the conditions of animals grown for food industry. So, it can be argued that reducing the amount of meat can have a positive impact to public health, promote sustainability and also secure the animals welfare.

The IPCC (2019) special report on climate change and land highlights the great opportunities of reducing greenhouse gas emissions by changing people's diet. Both local and international organizations also call for changes in consumers diets. According to United Nations experts, shifting to plant-based diet could be one of the ways to help fighting climate change. However, even knowing the negative consequences of meat industry, making dietary changes is usually not an easy task. It can be argued that there are many discussions on the environmental agenda about this topic. At the same time, it is a lack of discussion how to actually engage people to consume less animals-based products and which factors may lead to lower consumption of meat. So, during this research I decided to analyze what lies behind consumers choices and look at people's behavior. The attention is given to the role of culture, habits and motivational factors. Therefore, in order to promote more sustainable diets, more attention needs to be given to understand those aspects and what do they imply for the people's attitude towards meat. It is also difficult to change people's behavior without providing them with better knowledge about the importance of this issue. So, it can be argued that lack of motivation, cultural differences, old habits and lack of knowledge may play an important role in changes toward more plant-based diets.

I am also looking at the analyzed phenomena through the lenses of dilemmas and paradoxes. In order to better understand those approaches, it is important to see how those terms are defined. So, *dilemma* is described as a "conflict, problem, or situation with two possible solutions. When a

dilemma occurs, a person has to make the difficult choice between two desirable options, or, contrastingly, two undesirable options” (Literary terms, n.d.). So, on many occasions, dilemma is seen as unpleasant choice. At the meantime, *paradox* is a “statement that contradicts itself, or that must be both true and untrue at the same time. Paradoxes are quirks in logic that demonstrate how our thinking sometimes goes haywire, even when we use perfectly logical reasoning to get there” (Literary terms, n.d.).

It can be found many paradoxes and dilemmas that people face daily while making their eating choices. Arising dilemmas show the complexity of the decisions making in everyday life, so sustainable choices are not always easy to achieve. It is also hard to understand paradoxes as it includes contradictory facts. Given concrete examples of those aspects show the complexity of the problem and why it is not that easy to change the eating patterns.

3. Methodology

This chapter presents the process of the research. It covers research strategy, methods used in this study, access and collection of data, reliability and validity, as well as research ethics. According to Neuman (2014: 2):

Methodology means understanding the entire research process - including its social-organizational context, philosophical assumptions, ethical principles, and the political impact of new knowledge from the research enterprise. Methods refer to the collection of specific techniques we use in a study to select cases, measure and observe social life, gather and refine data, analyze data, and report on results.

3.1. Research strategy

To examine the research topic and attempt to answer research questions raised in this study, I am using abductive research strategy, which I was analyzing in the literature by Danermark (2002), Blaikie (Blaikie & Priest, 2019), Kovacs & Spens (2005). Blaikie (2010: 89) claims that “the aim is to discover why people do what they do by uncovering the largely tacit, mutual knowledge, the symbolic meanings, intentions and rules, which provide the orientations for their actions.” In this

research I aim to gain knowledge what lays behind people’s food choices and achieve understanding about people’s daily decisions.

The purpose of abductive logic is to understand social life in the terms of social actors’ meanings and motives (Blaikie & Priest, 2019). Abductive logic can be used to interpret and recontextualize, i.e. to observe, to describe individual phenomena within a conceptual framework or a set of ideas. It could help to understand something in a new way, get it done by observing and interpreting something in a new framework (Danermark et al., 2002: 80). I am exploring the social phenomena by looking at it through the lens of dilemmas and paradoxes, as well analyzing the roles of different external processes. Important part of the researcher by using abductive logic is the creativity and imagination (table 1.)

| | |
|---------------------------------|--|
| Fundamental structure | To interpret and recontextualize individual phenomena within a conceptual framework or a set of ideas. To be able to understand something in a new way by observing and interpreting this something in a new conceptual framework. |
| Formal logic | Yes and no |
| Strict logical inference | No |
| The central issue | What meaning is given to something interpreted within a particular conceptual framework? |
| Strength | Provides guidance for the interpretative processes by which we ascribe meaning to events in relation to a larger context. |

Table 1. Characteristics of abductive research strategy. (Source: Danermark, 2002: 80)

Abductive approach has a different research process than other research strategies. Deductive research strategy starts with scanning the theory, creating logical conclusions from it and presenting them via hypotheses and propositions and then testing them. After that, the conclusions, based on corroboration or falsification of created hypotheses and propositions, are given. Inductive logic has an opposite path, it first starts with observations about the world which will lead to emerging propositions and their generalizations in a theoretical framework (Kovacs & Spens, 2005: 137). In a contrast to that, abductive strategy is neither a purely empirical generalization as inductive is,

neither logically strict as deduction is (Danermark, 2002). According to Dey (2004: 91), abductive strategy does not aim to test the truth of the theory, but aims to use the theory together with the observations, in order to produce interpretation of something specific rather than make a generalization. In this study I aim to provide an understanding, not to test hypotheses of the theories, neither to make generalizations nor establish regularities, so the other research strategies do not fit for my study.

Abductive research approach has both its strengths and weaknesses. The advantage of the abduction is that it gives directions for interpretive processes which afterwards are assigned meaning to events in the relation to a larger context. The weakness of abductive logic could be explained as there are no fixed criteria from which it could be possible to evaluate in a definite way the validity of an abductive conclusion (Danermark, 2002).

3.2. Methods

According to Blaikie and Priest (2019), methods are techniques to collect and analyse data. This paper is using a single case study as a research method. Case study could be described as “an empirical inquiry that investigates a contemporary phenomenon (the “case”) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (Yin, 2014: 16). So, it can be said that the case study could help to understand a real-world case.

Case study research could be used in many alterations in order to contribute to our knowledge of individual group, organizational, social, political, and other related phenomena (Yin, 2014). In this study, the case is Rogaland County, as this paper investigate the present meat consumption of people’s preferences living in this area. It was decided to narrow the study from national to regional level, because area of Norway is widespread, so people living in different regions could see the analyzed phenomena and its challenges very differently. This could appear from the different climate, not identical access to food shops or restaurants, not equal access to the information or others.

The data used in this study is a qualitative data. Data in the qualitative form could be collected and generated. It is said that most qualitative methods are relatively time consuming. Qualitative data in contemporary social science is usually using some form of unstructured or semi-structured interviewing (Blaikie and Priest, 2019). One can argue that qualitative interviewing can get closer to social actors' accounts of the social interaction with which they are related, also to their meanings and interpretations. Thus, "interviewing, in combination with reasonably extensive observation of actual social situations, provides a useful alternative to participant observation" (Blaikie & Priest, 2019: 202).

I am also using documents as a data source. Those could be used differently in a conjunction with either quantitative or qualitative methods. Material with the text could be treated quantitatively if it is coded into the categories that are assigned numbers, which were counted and manipulated statistically. Material could be treated qualitatively if the aim is to identify the phenomena among which connections are established (Blaikie & Priest, 2019).

3.3. Access to data and data collection

In order to collect information for this research, I am using primary data, generated by the researcher, and secondary data generated by another researcher. Data collection and generation could be described as the core activities in social research (Blaikie & Priest, 2019). Compared to quantitative data collection, qualitative data collection is relatively time consuming.

During this research, I was collecting data from different sources. In the period of January and February, I was using the time for the preparation and documents collection, so I could be more familiar with the topic. The data I was using from the articles, publications and books were accessed via online sources on the internet as Research Gate, Google Scholar and Oria. The information was also collected from international and local organizations online pages. Books needed for this study were collected from the library of University of Stavanger.

It is highlighted that the researcher needs high level of expertise in the topic so they could ask informative questions (Sandy & Dumay, 2011). There were key reports which I used to get familiar with the addressed problem and get a valuable knowledge for the further research (table 3). Using

the secondary data and developing the background of the study was an important task. I would highlight that this preparation in the first two months of this study helped me to systemize my ideas and develop good questions for interviews which provided me with rich answers I needed for the research. Later on, I started to focus on the interviews – to decide how many interviews I need to conduct, to find interviewees and agree on the interviews was a very important process as it later determined what kind of information I had available.

In the month of March, all the planned interviews were conducted. The period of April and May have been spent for analyzing the data and developing discussion out of collected information. First week of June was spent to setting up all the work together and making it ready for final submission.

| | |
|----------------------------|---|
| International level | 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. |
| | European Commission (2017). The Future of Food and Farming – for a flexible, fair and sustainable Common Agricultural Policy. |
| | FAO, IFAD, UNICEF, WFP and WHO (2020). <i>In Brief to The State of Food Security and Nutrition in the World 2020</i> . |
| | World Resources Institute (2019). World Resources report. Creating sustainable food future. A Menu of Solutions to Feed Nearly 10 Billion People by 2050. |
| National level | Norwegian Environment Agency (2020). “Greenhouse Gas Emissions 1990-2018, National inventory report.” |
| | Animalia (2020). Kjøttets tilstand 2020. |

Table 2. Analyzed reports on national and international level.

Interviews

As marked above, most important qualitative data in my research was collected by conducting interviews, which is primary data source. By their very nature, interviews are “social encounters where speakers collaborate in producing retrospective (and prospective) *accounts* or *versions* of

their past (or future) actions, experiences, feelings and thoughts” (Rapley, 2004: 16). Interviews are important part of the research as it could give research valuable information about world of others and well-prepared interview could provide rich set of data (Sandy & Dumay, 2011).

Conducting interviews require face-to-face and verbal contact. However, during Covid-19 pandemic most of the daily life’s activities were moved to online basis, so I understood that it is going to be a challenging task to meet people physically and find those who would like to talk to me. I was considering having an online survey-based research, as it would be easier to send the questions online. Since I have prepared quit many questions for the interviews, I thought that people may answer questions very briefly and it is going to be hard to understand respondents’ real thoughts and beliefs. From the previous experience I could see that the given answers on the survey can be very short, even those which are not only yes or no questions. So, after weighting pros and cons, I decided that that interviews method is more suitable for my study and I will gain more knowledge of it than sending a survey. Thus, I decided to combine face-to-face interviews, interviews on the video call and reaching people out on the phone.

The most important point during my research was to have a live conversation and have an opportunity to ask follow-up questions. I was also thinking that personal and direct contact with people would make a better connection between me and the interviewees, and they may open up, as well as express themselves better. People who were interviewed during a physical meeting were those who I meet on a regular basis, for instance, people at university or at work. In order to avoid physical meetings, others were reached by other preferred way – either with video call on the computer or calling on the phone. The physical interviews were proceeded in university campus and in my workplace, with others I talked when I was at home.

The respondents for the interviews were chosen randomly. Even though I was trying to avoid talking with people who are from the same environment, in order to get more various opinions, only few things were required to be able to answer the questions. Firstly, respondents were supposed to live in Rogaland County and second - they needed to eat meat. As this study is analyzing what lies behind people’s preferences when choosing meat/ non-meat products and what would be the factors that could lead them to eat less meat, people who already do not eat meat, were excluded from this study. Developed interviews questions would not have fit to the respondents who do not eat meat.

I have interviewed 26 people. There were 10 men and 16 females who participated in the interviews with the age range between 27 – 70 years old. The aim was to have the equal number of respondents of both genders. However, due to the difficulty to convince more male respondents to answer the questions, more female applicants were participating in the interviews. It is known that men and women diets normally differ as men usually tend to consume more meat, thus the interview answers may not represent the real situation between different genders.

Every in-depth interview took around 45-60 minutes. It would have taken shorter time if I would have decided to record the answers. However, all of the interviewees were warned about that and did not have issues regarding the time. As mentioned before, one of the factors to be qualified to participate in the interviews was that respondents must eat meat. I was positively surprised that most of the respondents were engaged in the topic, and we managed to have an interesting discussion. Each of interviewee was unique as big part of respondents had different cultural backgrounds and individual relation with food. This factor also helped me to gain variable answers. I tried to interview less people from my personal network and to contact people who are not from my daily environment to get a better insight of the people's decisions. I thought that interviewing people who, for example, study the same subject as me, would narrow the collected information, because the students will most likely be familiar with the topic from before. Therefore, I asked friends and colleagues to put me in contact with other people that they know and may be interested to participate in the interviews.

Types of interviews

In my study I was using semi-structured interviewing. Before these interviews I considered which themes I wanted to cover with each of the interviewee and prepared the questions. Questions gave a structure and guidance to the interviews, but I did not necessarily need to ask all the questions. I was following the person and did not want to repeat anything they already mentioned. During the conversation, I asked open questions which also implied that I could ask follow-up questions and get additional information (Halvorsen, 2008). The plan was to send emails to the interviewees in advance and provide them with the questions. This was not done on every occasion as some of the interviewees preferred not to know the exact questions, so that they could answer them naturally without overthinking. Under both circumstances, all of the respondents were provided with the

background of the research, so that they can be familiar with the topic and understand the meaning of the interview.

So, prepared questions gave the structure to my interviews and I did not need to be concerned about forgetting something or not covering important queries. The interview guide helped me to achieve all the information I was looking for. It was important for me to get a wider picture about how much people know about the analyzed phenomena in general. It was also very important to understand which factors determine people's preferences and on which circumstances these could be reversed. The interviews had a relaxed tone, and I was asking different follow-up questions, depending on respondents' answers. Nevertheless, there were key questions which I aimed to cover with every interviewee:

- General eating habits – what kind of diet the respondents have, how much meat does it include, where the food is usually purchased. This helped me to understand the general respondent's connection with food and especially with meat.
- Food awareness – whether respondents are aware of where the food comes from and what are the conditions of the animals in the farms. After I introduced the topic, this was a general question aiming to understand the respondents' position.
- Meat and climate change – how much the respondents are aware of the negative impact of meat industry to the environment. It was important to know whether all of the respondents were aware of this. I noticed straight away that interviews with those who were not familiar with this problem or did not believe it exists, took shorter time and interviewees were less engaged.
- Higher tax for meat products – whether respondents think this could reduce the purchase of meat. I found it important to understand if those kinds of restrictions do affect people, this afterwards was developed to a discussion about other factors that could be a stimulation to consume less meat.

During my research, I decided not to record the interviews, but write it down on the computer. This was done intentionally to observe the given information straight away and get it all on the paper. Respondents were positive about that, tried not to talk too fast and it went well to write down the

answers. This helped me to save a lot of time later, as after the interviews I already had the information available as the text and could read the answers few times. I could also navigate fast through the collected data as I remembered it well after the interviews.

3.4. Reliability and validity

It is important to discuss reliability and validity of the research. Those key concepts are used for the quality evaluation of the research, which are the central concerns in all measurement (Neuman, 2013). This research is using abductive research strategy, so it is necessary to show the weak side of abductive logic as there is no fixed criteria from which it is possible in assessing validity and reliability in a definite way (Blaikie & Priest, 2019).

Validity and reliability are ideas helping to establish the truthfulness, credibility or believability in the findings (Neuman, 2013). According to Neuman (2013: 212), if there is no validity, the fit between the ideas we use to analyze the social world and what actually occurs in the lived social world is poor. So, validity shows how well social reality is measured, using our constructs about that. It presents the truthfulness and shows how well an idea goes together with an actual reality. Talking about reliability, it means consistency and it claims that the same thing is repeated or comes up under very alike or identical circumstances. It can be said that every researcher aims for reliable and valid measurement (Neuman, 2013). It is though important to note that there is doubtable if reliability and validity belongs in consideration of qualitative research as it may be more suitable for quantitative research. However, it is discussed that validity of qualitative research, is not about establishing “the truth” of “facts” that exist “out there”, validity has moved from the “truth of statements” to “understanding by participants and readers” (Merrick, 1999: 28). Merrick also argues that reliability of qualitative research relies on general perception of reliability. When addressing reliability, the focus could be given to general queries – what are the methods used to collect the data and under which circumstances, what methods are used to analyze data and who collected the data (Merrick, 1999: 28). Thagaard (2013) also emphasizes the importance of clarifying how does the data during the research was developed.

In the beginning of the thesis, I started with the background review which introduced the reader with the context of this study. Used data was collected in reliable scientific data sources and articles were

peer reviewed. Another information was collected in the national and international level organizations data bases and their provided reports.

The primary data was collected by the interviews. It is possible to misunderstand said information, but it is important to note that if I was in doubt, I had an opportunity to ask the same question again or in the different way one more time. This was done when, for instance, the given answers were in some ways contradicting with other previous answers of the respondents, so, asking the same questions again helped me in the end to get the right information. In addition to that, majority of the respondents were sent the information with the presentation of this study and the questions, which were about to be asked. This can imply that respondents had a good understanding of the questions before the interviews. However, it can also be argued that people are not aware of how much meat they eat, so numbers regarding the meat-eating habits cannot show the real amount of consumption. First of all, people have different conceptions of what meat is and do not consider same products to be meat. In the start of the interviews, respondents were presented the topic and the definition of meat. However, some people do not consider fish or white chicken meat to be meat. It is also could be mentioned that people could forget how much they eat, as well as there could be language misunderstandings.

Regarding methodological limitations, it can be marked that a mixed methods design of the study could have add some interesting aspects. Also, reliability of the collected primary data from the interviews would be higher if the representatives' group would be accordingly bigger. Even though the study could benefit from those aspects, due to limited amount of time and the size of the study, as well as Covid-19 limitations, to gather more data was not possible in this study. At the same time, it is important to note that this research does not tend to make generalizations, but rather to gain a valuable knowledge about the analyzed phenomena.

3.5. Research ethics

It is argued that “social researches have to balance the anticipated benefits of their research with potential physical, psychological, social, political, economic or legal harm it may cause” (Blaikie & Priest, 2019: 50). During the research, I was fully aware of my ethical responsibilities. I would argue that the problem statement of this study and my research questions are not sensitive, nevertheless,

it was important for me to ensure that the respondents understood the nature of the research and knew the objectivity of this study. In order to ensure this, principles and practices of the research were presented to the interviewees. The information provided by interviewees were not recorded but written manually by me. Respondents in this study participated in the study voluntary, they stayed anonymous and none of the respondents could be identified by their name or belonging to some organization. It was very important for me as a researcher to ensure that confidentiality is granted, and all participants know that all the gathered data will not be made public. Their identities were anonymized, but at the same time respondents were informed that they can withdraw from participation at any time. They were also informed that they have the right not to answer some particular questions during the interviews. However, this was not a case in this study. After I was done with the data analysis and the thesis writing process was over, the documents files with the interview answers were deleted. In the end of the research, I offered the participants to share the summary of my findings and analysis.

4. Findings

This chapter presents the results from the collected data. There were 26 interviews conducted which was a challenging and time-consuming process. However, after all the interviews were conducted, there was a lot of data collected which resulted in the great number of various answers. When analyzing interviews, I was looking for similarities and differences between the interviewees' responses.

The headlines of this chapter are structured by the research questions. The aim of the findings part is to present the collected data about people's attitude towards meat production and consumption, their eating habits and factors which may decrease their consumption of meat. Here I am also looking at on what degree climate change shapes people attitude towards meat. In this part I am only looking at the findings of the study, while in the discussion part I am analyzing those answers and looking at the wider perspective of the analyzed phenomena.

4.1. Respondents overview

There are 10 men and 16 women who participated in the interviews. According to the collected data, 5 females and 4 men claim to have a very high meat consumption reaching multiple times a day. 2

females and 3 men eat meat around 4-5 times a week, while 4 female and 3 men eat meat every other day. 5 women claim that they have low meat consumption with less than 3 times a week. None of the male respondents claim that they have low meat consumption (figure 8).

Very high – referring to those who eat meat multiple times a day.

High – referring to those who eat meat daily or almost daily, 4-5 times weekly.

Medium – referring to those who eat meat every other day.

Low – referring to those who eat meat occasionally, less than 3 times a week.

People were asked to count meat servings and include all the dishes eaten at work, at home or eating out. Their consumption of meat varies a lot, but the majority of people eat meat multiple times a day. When respondents were telling about their eating habits, almost every person was claiming that they wish they could consume less animal-based products, especially processed meat. 7 of them mentioned climate change related reasons, 8 wish to eat less meat because of health problems.

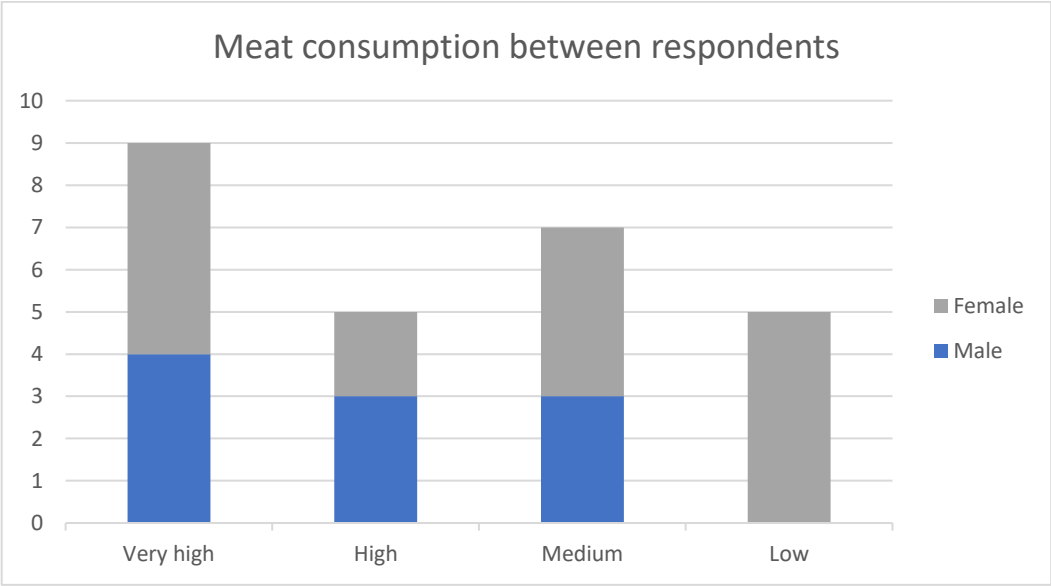


Figure 8. The frequency of meat consumptions between respondents.

This study was initiated by the fact that meat industry leaves a great negative environmental impact to the environment and is one of the industries to induce the climate change. During the start of

every interview, I presented the topic of the research study and the reason for necessity to analyse this topic. The biggest reason to change our habits and think about our behaviour is that is one of the ways to reduce the climate change. So, to start with, it was important to understand if respondents believe in climate change at all. It can be seen from the interviewees' answers that 4 respondents do not have any opinion about the climate change (figure 9). 8 respondents claim that they believe in climate change, but they do not think that only people are responsible for this activity. Respondents think that not only people who to blame for the temperature raise. Candidate 9 tells:

I believe in climate change, but I do not think that it is only us who are responsible for this. The nature is changing itself, look, for example, at the wildlife. It is totally different today than it was many ages ago.

At the meantime, 14 respondents believe that it is manmade activity. For instance, candidate 2 tells that when she was a kid, nobody talked about climate change, and she heard this term only during the last decades. This was a time when various industries worldwide grown a lot, so she believes it can be an indicator that it created huge negative footprint to the environment. None of the respondents answer that they do not believe in climate change at all.

As it was mentioned, 4 respondents do not have opinion about climate change. For example, candidate 8 claims:

I think that this issue may be recognized in countries which experience extreme weather conditions as drought, fires, limited access to water or food, raised sea level. I think that majority of inhabitants in the area we live do not feel those factors, so it is hard to see the real problem. I also tend to think that it is the problem of bigger countries that pollutes environment the most. That is why I think it is hard for me to reconsider my eating habits because of this reason, when I do not feel affected by that.

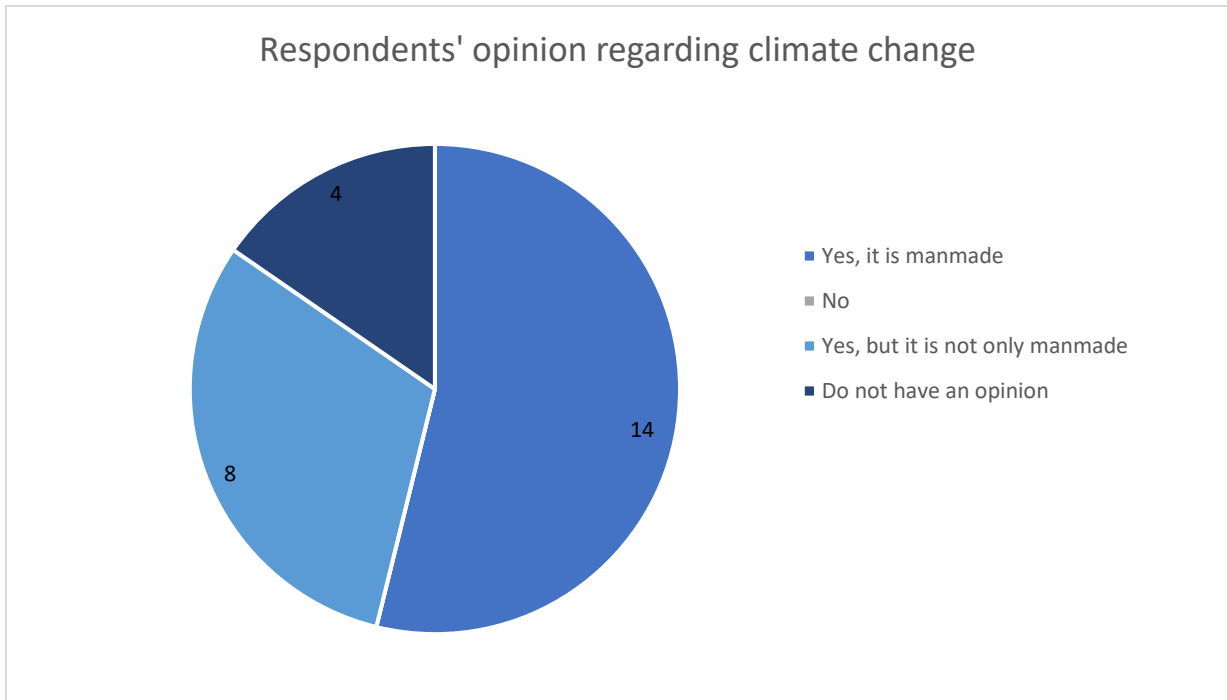


Figure 9. Respondents' opinion about the climate change.

The same pattern is seen in the answers by other 5 respondents who mention that they believe in manmade climate change, but at the same time they think that as long as this phenomenon does not affect them directly, it is not so naturally to be afraid of it or do something about it. None of the 26 respondents claim that they feel that climate change negatively affected them directly.

4.2. To what extent does climate change shapes people's attitude towards meat consumption?

Changing eating habits with a less animal-based products is one of the ways to reduce climate change, experts claim. Both international and local health organizations in Norway promotes the diet with less processed meat for environmental and health reasons. The answers from the respondents show that half of the respondents are not aware about the negative impact to the environment done by the meat industry. 13 respondents claim that they know or heard that meat industry is harmful to the environment, while 13 claims that they never thought or heard about it (figure 10).

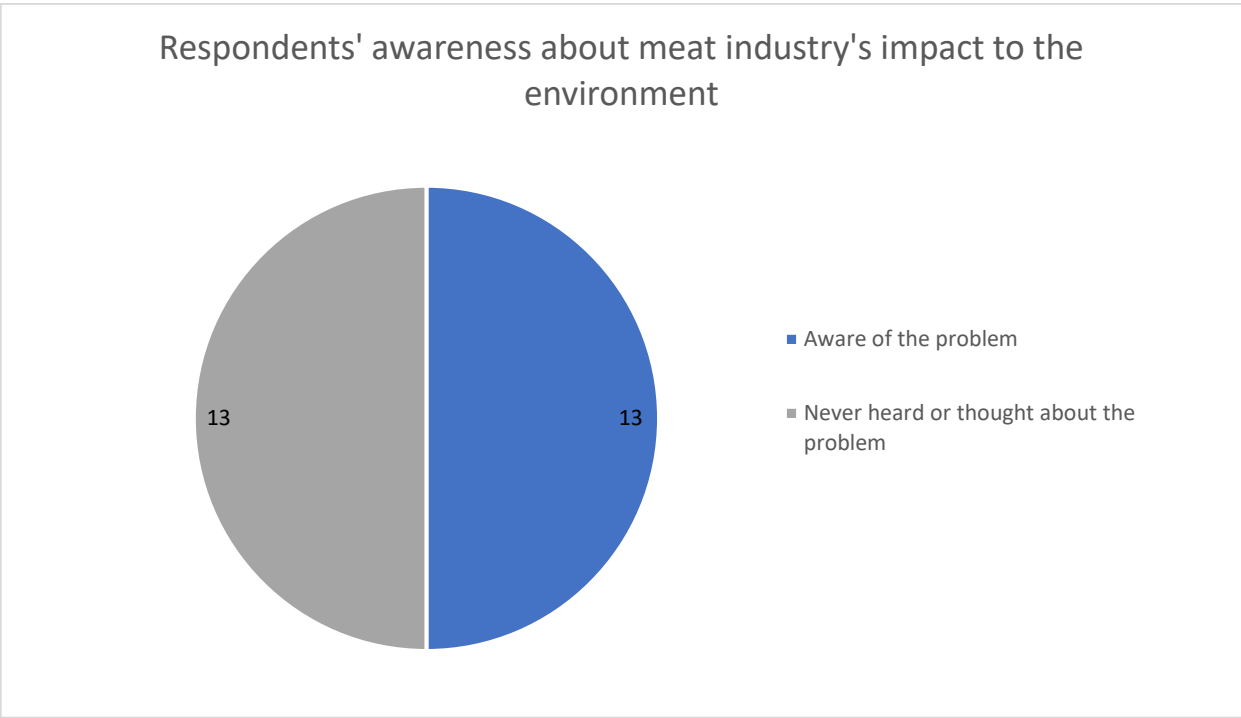


Figure 10. Respondents' awareness about the meat industry's impact to the environment.

So, respondents split themselves in two groups. One of the respondents who is not aware of this problem claims:

I am trying to take care of the environment, I have an electric car, I always recycle the trash, but honestly, I have never thought that food has such a huge impact on the environment. I think that so much attention is given to the transportation, like engaging people to use the bike or the bus or importance of recycling the trash, but it is never talked so loudly about the necessity to eat less meat, unless it is connected to health issues (Candidate 26).

People who are aware of meat industry's negative impact to the environment claim that they have some degree of knowledge about this, 5 of them mention that they heard only about the huge harm of beef. Nevertheless, 4 of them mention they wish to know more about it since food surrounds them every day. One of the respondents claim that she has a wide knowledge about this topic, because of her personal interest, at the same time she claims that more attention needs to be given to educate

people about this issue. This should be done not only because of the environmental, but also ethical reasons. It is also mentioned that government could also more promote plant-based diet.

Another respondent also thinks that this topic needs more attention, because it is very rarely presented on media. He claims that there should be more general awareness about meat industry's impact to the environment. Respondent compares this issue with another discussed aspect of meat industry - animals' welfare. He thinks that ethical aspect of eating meat gets much more attention on the news and media:

Animal welfare organizations are often on the different communication platforms showing the importance of this topic and works for better conditions of the animals. In 2019 I saw a documentary film "Griseindustriens hemmeligheter" (eng. "The secrets of the pig industry"), which openly presented bad conditions of the animals in few Norwegian farms and got a lot of attention of the society. After watching this documentary, I got a very strong feeling which made me reconsider my eating habits and think more about my eating patterns. The topic of the film was also discussed at work and with friends, which means it really touched many. I think that we tend not to think about things we do not see, so facing the reality just as it is, is shocking. So, to see more content about meat industry's negative effect to the environment may do a stronger impact to people too (Candidate 23).

Candidate 25 claims that she is aware of the negative footprint to the environment. Nevertheless, the knowledge of it is quite poor, she claims that after receiving the presentation of this study, she was not aware that the scale of damage to the environment is so high. The same patterns are seen in the answers of other 3 respondents, who did not know that it affects the environment so much, so all of them claim that more attention absolutely needs to be given to inform people. Respondent 2 claims:

I think that media needs to play a role here. I have not seen any advertisements or publications about this topic. But it could be a way for people to learn about it. We are not going to reconsider our habits if we are not aware that this problem exists.

The other half of the respondents are not familiar with this issue. 13 respondents claim that they do not know about meat industry's damage to the environment or that is nothing they have thought about before. Candidate 5 says that he does not know anything about it and since he lives in the city centre, where the animal farms are not around, it is not what pops to his head. At the same time, he claims that deep inside he knows that meat industry is not so innocent, but he chooses not to think what lies behind of it. He believes that there are many other people who buy meat products at the shop and choose not to think about different products phases until it reached the shop. Other candidates tell:

To be honest, I do not understand which harm it does to the environment? Isn't it just a circle of the nature? (Candidate 6).

People were eating meat hundreds of years, so I think this is a very natural behavior, I think we were made to eat meat (Candidate 7).

So, taking in the consideration that half of the respondents are not familiar with this topic, it makes it clear that if there would be more information available about that, it would be higher chance that people could reconsider their dietary habits. 2 of the respondents mention that there is necessary to start educating people from the young age, for example, already start teaching kids in the kindergarten, where they can learn the basic things and start to understand how important is to take care of the environment. As it is known, Norwegian health organizations promote varied diet with many vegetables, fruits and berries, as well as whole grain and fish. It is also advised to use less processed meat, red meat and salt with sugar. Thus, the same 2 respondents emphasize how important is to teach those patterns to the kids to create good habits from the young age.

4.3. Which factors determine people's preferences when choosing meat products?

Majority of the respondents choose meals or products with the meat. Only 4 respondents claim that they mostly try to go for vegetarian option if it is available. There are few patterns, which are often repeated in the respondents' answers. Figure 11. presents the results of which answers were repeated number of times by different respondents.

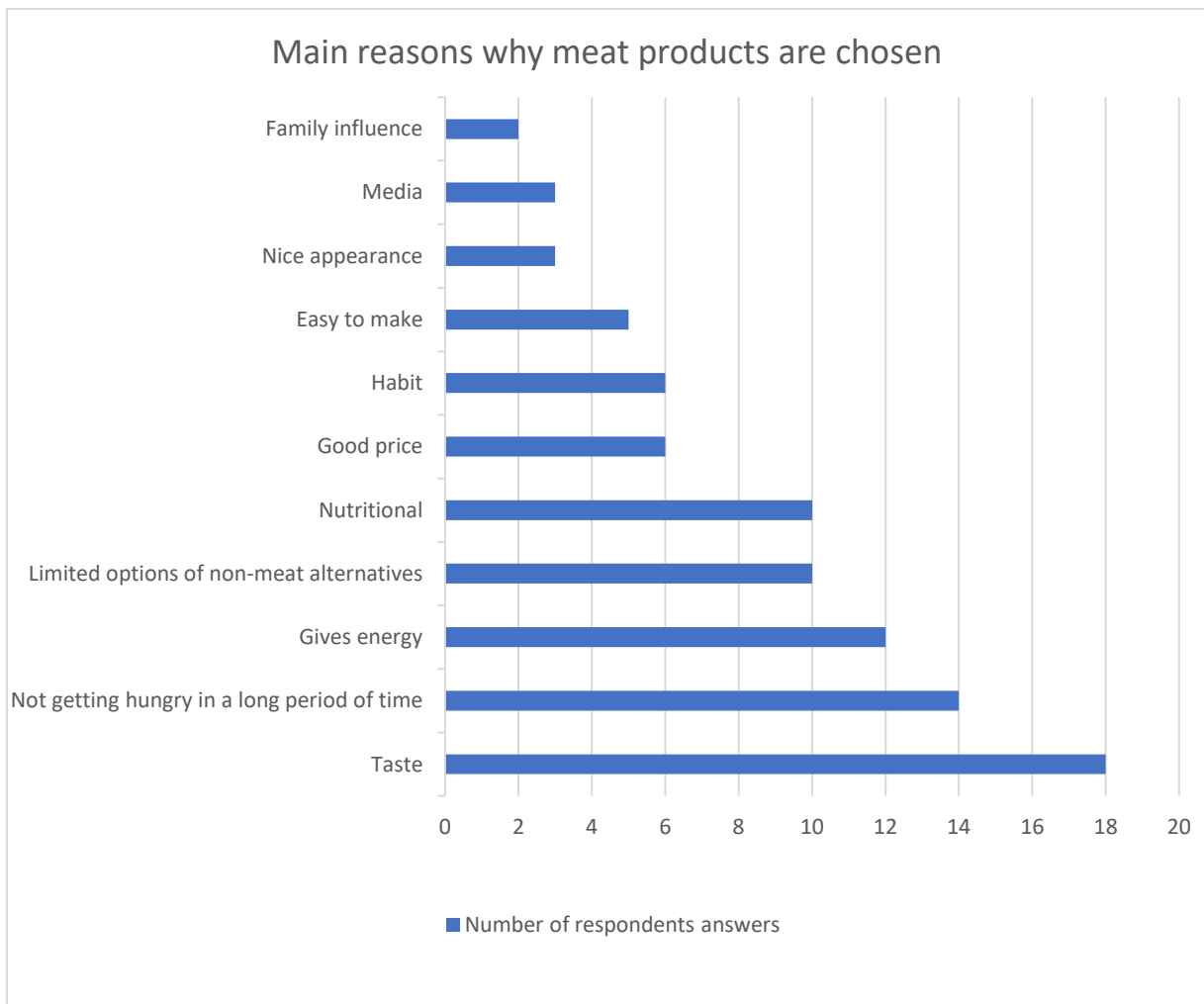


Figure 11. *The main factors why meat products are chosen.*

So, as it is seen in the figure 11, 18 respondents name taste as one of the reasons why they choose meat containing meal. 12 of them tells they wish to eat less processed meat, but they do not have strong enough will, because they like it too much. Many respondents mention the positive feeling about being full after the meal containing meat, because it gives them a lot of energy. 14 respondents claim they choose meat, because it makes them full for a long period of time. They claim that if they choose vegetarian dishes, they become hungry much faster. Candidate 9 claims:

If I eat at work or in café, I always order a meal with meat, because I do not get full of only plant-based food. It does not necessarily taste better, but the food is “heavier”, so it makes me fool. If I, for example, order a salad or soup, I will be

hungry in one hour. For me, who does a physical work which requires a lot of energy, it is not an option.

Limited option of meat alternatives is another important aspect to take into account. 10 respondents claim that one of the reasons that they choose meat is because of the limited options of non-meat alternatives. All the respondents say that the assortment of meat products is much easier accessible than other products, and it applies both at restaurants and food shops. 2 of the respondents claim that it is sometimes very hard to get food without meat, because it is very little options provided. For example, there could be 20 different options of pizzas in the restaurant, but only one of them that does not include meat. People experience that they often need to go to specialized cafes, in order to get more vegetarian or vegan options. Candidate 16 also tells:

During the Covid-19 pandemic, a lot of the colleagues work remotely, so because of the little number of employers, the selection of food in the canteen is very limited, all of the dishes that are sold are with meat. I noticed the same pattern during the seminars and conferences at work. Even though there are many people from different nationalities and cultures, mostly only meat meals are served. I found it very strange as more and more people are becoming vegetarians. This shows the “normality” of being a meat eater.

With respect to nutritional value, 10 respondents eat meat because of the need to get all necessary components for a healthy balanced diet and get the nutrition. They tell that they try to eat healthy, include more vegetables, but the meat is needed to get the right amount of nutritional elements and vitamins. These could also be in found in plant-based food, but it takes much more effort to know which food and in what amount can be eaten instead, so, it can be said that new skills and more effort is needed to make it work. It also requires more time and interest, so some level of commitment is needed. In the busy lifestyle, many tells that they do not have a time or strong enough will to make it work.

6 respondents mention the good price is another important indicator. They claim that meat can be purchased for very little money while meat alternatives as, for instance, plant-based burgers or sausages are more expensive than the regular ones containing meat. So, the price plays a role

determining people's food choices - if people cannot afford to buy something, they choose the cheaper alternative. For example, candidate 20 claims:

I am a student, and I need to think about the budget first. I am aware of the negative impact to the environment, and I really love animals, but when I buy food, I think about the products which will make me full and has a good price. I also look for the special offers and freeze the meat to have it for later, this is how I can save some money.

17 of 26 respondents tells that if, for instance, the vegetarian dish is on sale, it increases the chance to purchase the product. Few of them mention the popular meat free Monday offer in the restaurants, when restaurants offer 2 for 1 for the vegetarian dishes, which makes it much more attractive to order it. There are also 6 people who tell that they choose meat, because it is a habit. While growing up, they were told by their parents that meat is necessary, and they never tried to change the old habit. They also think that it may be a challenging task, which would require a lot of commitment.

Lastly, there are few other factors which influence people's choices. 5 respondents tell that meat dishes are easy to make and takes short time. Candidate 17 claims that her family is very busy with work and kids, so, even she tries to think and eat healthier, usually they end up with quick meals which do not require many components, but rather only to fry the meat on the pan. 3 respondents mention that they choose meat, because of the nice appearance. Candidate 8 claims she does not want to choose non-meat dish, because it does not look tempting by how it looks. 2 persons mention that advertisements on the media make them want to choose meat containing dishes. 2 respondents tell they eat meat, because they get served it by other family members who are responsible to make food at their home.

4.4. How could people be motivated to consume less meat?

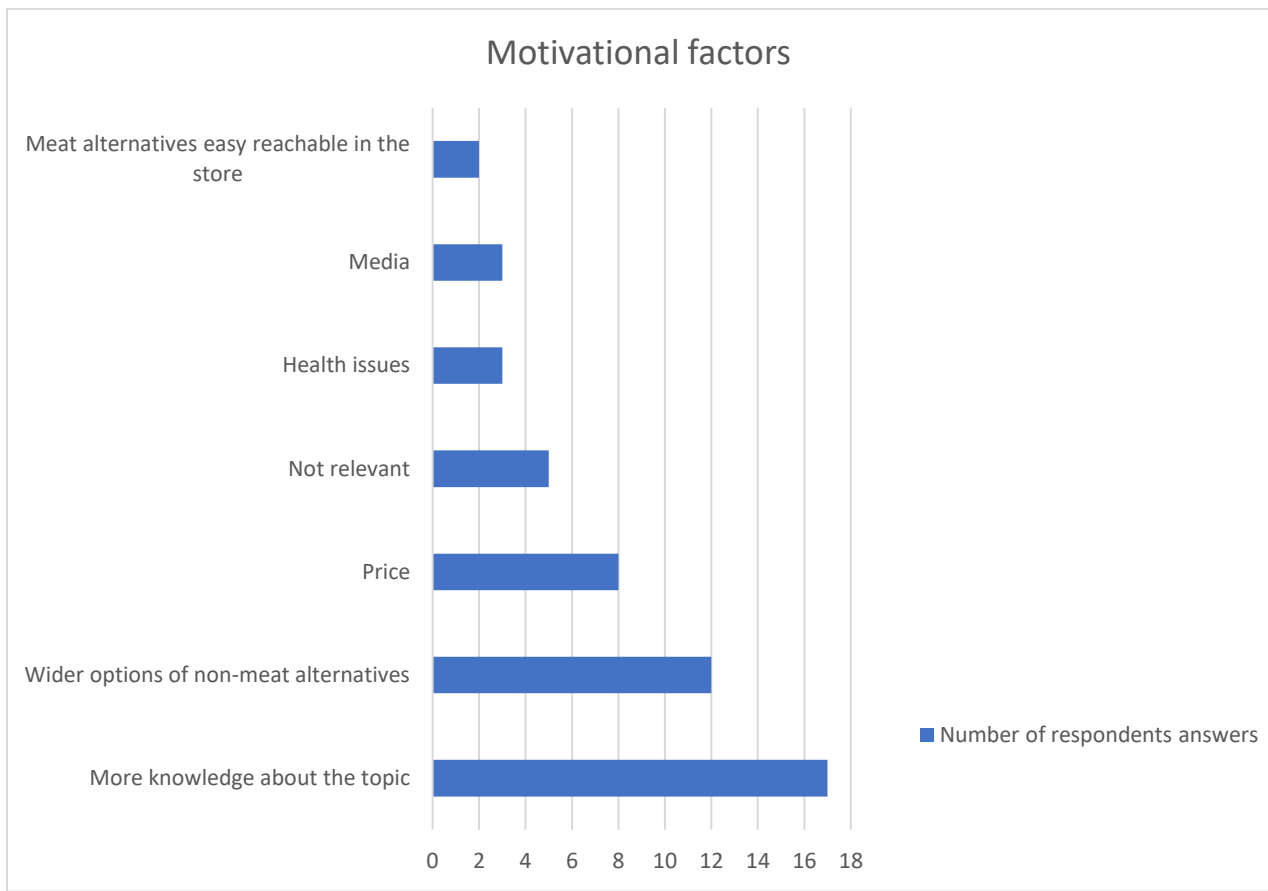


Figure 12. *The main factors that would motivate people to consume less meat.*

As it is seen from the figure 12, majority of the respondents, 17 out of 26 persons, state that wider knowledge and understanding about the topic would motivate them to consume less meat.

I think everything starts with the knowledge, if we are not aware of the problem, we are not going to start solving it. There is a lot of information about the bad conditions of the animals, for example, chickens who live in cages. Those things affect the people and people do not want to buy products which come from these farms. If people would know the real “cost” of one serving of beef to the environment, they might also reconsider their choice at least once (Candidate 9).

So, respondents claim that they are more aware of the bad conditions of the animals, rather than the negative footprint to the environment. 12 respondents say that, if possible, they choose to buy ecological and local meat. For example, candidate 18 claims that he always has in my mind which

product he purchases. Thus, ecological product always wins over the cheaper alternative. Candidate 19 claims that he tries not to think about the meat product's way until it reaches the shop, because it will affect the way he sees the food.

12 respondents claim that better options of the non-meat dishes would make it easier to consume less meat. As it was already discussed, the alternatives to purchase the non-meat products at the restaurants, shops or canteens are much more limited or in some cases not even exist. 20 of 26 respondents tell that they have tried some of the meat alternatives. 3 of them mention that they heard about the new technologies as insect's meat, lab-grown meat, but would not like to try it. Candidate 23 claims that he has heard about some new innovations and think it is an exciting development. However, for his own consumption, it is not what he would like to try.

Another aspect to take into account is price. 8 respondents claim that if the meat products would be more expensive, they would buy less of that. They think that price plays an important role and if people cannot afford it, they will try to look for other cheaper alternatives and price increase is usually a good tool for people to reconsider their needs. On another hand, respondent 9 claims that in Norway many people have good economy, so small amount of price increase will not be taken into account, while this may do more influence in poorer countries. Respondents also mention that meat alternatives are usually even more expensive than the regular meat, which makes it even less motivating to purchase those products. Candidate 1 claims that companies selling those products could get financial subsidies from the government, to reach the customers attention in the developing phase. The rest of the respondents do not think that price increase could make a difference.

I do not think that people would buy less, because it is not so easy to suddenly change your habits, especially in the grown-up age. People may buy cheaper worst quality meat instead. I would personally choose to eat what I like and rather save in other things (Candidate 6).

Candidate 8 also thinks that the increasing price will probably not play a most important role in the decisions making:

Everything is getting more expensive, so I do not think that the raising price of food would change the eating habits. I want to eat healthier and care about the environment, but in the busy lifestyle, I come back to old habits. It requires a lot of personal motivation to make some changes. It is a matter of awareness, not a price.

Between other motivational factors, 3 respondents mention the health issues as a factor which motivates them to consume less meat. All of them thinks that eating more vegetables instead of red meat, could help them to lose weight. One of the respondents thinks that meat contains a big amount of fat, so when she chooses more plant-based products, she feels it is easier to regulate the body weight. Candidate 2 claims that she was advised to consume less animal-based products, because of health problems:

I was advised by my doctor to consume less animal products, because of my health condition. I also personally believe that big consumption of red and processed meat increases the chance to get some diseases. When I eat less meat, I feel somehow better in my stomach and do not have a feeling that my body is “heavy” as I feel after eating meat.

There are 5 respondents of this study who claim that they do not consider consuming less meat in the future, so there are no motivational factors which would make them to change their eating habits. Candidate 1 says that he is aware of the issues related to the meat industry, but he could not imagine his diet without meat.

5. Discussion

This part is analyzing the answers from the interviews and what do they imply for the research questions. Here I am reflecting on the wider perspective of the analyzed phenomena. This chapter also shows which paradoxes and dilemmas people face daily when making decisions about food preferences.

5.1. How could people be motivated to consume less meat?

It can be argued that one of the reasons why people do not want to change their behaviour is a lack of motivation. Motivation is seen as one of the driving forces behind people's behaviour, so if one does not have a motive, it is hard to accomplish something (Dun, 2015). Thus, it is a key thing to discuss which factors motivate people to consume less meat.

It is argued that motivation is very complex, and it is not easy to predict it. Different people are motivated by different factors and they also individually react to various situations (Dun, 2015). This can also be seen in the interviews answers by the respondents who participated in the study. Some motivational factors are much more relative for the majority, while some apply only to a small part of group. There is also a possibility that people are not aware of what factors motivate them or do not want to want to be motivated, because they do not wish to change their behaviour. It is seen that 5 respondents from the study claims that they do not have an intention to consume less meat. In this case, their behaviour could be hardly changed, because motivation, even could be influenced by external sources, mostly needs to come from the inner urge (Dun, 2015).

High meat consumption is noticed in many western countries and scholars are discussing that reducing amount of meat would contribute to a better human's health, animals' welfare and would lower the amount of greenhouse gas emissions (Deemer & Lobao, 2011; Deckers, 2010). The substantial motivational factor between respondents, what may motivate them to consume less meat, is more knowledge about the topic. Being the major motivational component, the most attention is given to discuss the importance of this element.

It can be argued that even though meat industry's impact to the environment is enormous, there is a lack of knowledge about this problem between society. International and local institutions are calling for changes in humans' diets with respect to the damage done to environment. However, it is seen that half of the respondents of this study is not even aware of this issue. So, it can be argued that present people's knowledge about food system's impact to the environment may be too low to motivate them to change their eating habits. Many scholars have analysed this problem and claims that food sector is a "major driver of climate change" and is responsible for "changes in land use, depletion of freshwater resources, and pollution of aquatic and terrestrial ecosystems through

excessive nitrogen and phosphorus inputs” (Springmann et al., 2018: 519). Knowing the fact that what people consume daily have a huge negative impact to the planet, respondents raise their concerns why this topic is not wider discussed in the public arena. Especially taking in account that it could be seen as one of the easiest ways to reduce the impact to the climate change and does not require high costs.

Scholars also emphasize the need of policy implications. In order to stay below the mean values of the planetary boundaries, one of the things that is required is dietary changes. Analysing policy implications, it is argued that “multicomponent approaches that include clear policy measures might be best suited for changing diets” (Springmann et al, 2018: 523). 6 broad domains are identified to improve the lifestyle habits, including dietary habits. These consist of media and educational campaigns; labelling and consumer information; taxation, subsidies, and other economic incentives; school and workplace approaches; local environmental changes and direct restrictions and mandates (Mozaffarian et al., 2012). So, media and educational campaigns are seen as a strong tool to influence the behaviour of people. According to Gonera and Milford (2018), “both the industry and policy makers can put a much stronger effort into *educating consumers*, in order for consumers to familiarize themselves with plant protein products and their benefits concerning health and the environment.” Taking in account that majority of study’s respondents emphasize the lack of available information about this topic, it can be argued that sustained, focused media could be a great tool to engage people to move to more sustainable diets.

Important component of education is to teach people from the young age. Norwegian health authorities promote the varied diet with many vegetables, fruits and berries, as well as whole grain and fish. Additionally, it is advised to use less processed meat, red meat and salt with sugar (Nysted et al., 2019). Big group of the respondents argue that these trends could be already taught for kids at kindergarten and at school as habits created from the young are easier to develop and keep in the future. It is emphasized that kids should be taught about healthy and sustainable food, about the welfare of the animals and environment. Numbers of researches discuss the importance of educating people and encouraging them to be aware of the consequences of their behavior. Norwegian researcher Milford also emphasizes the attention given to school kids:

I think the most important thing is to start at school. We can teach children to cook in a slightly new way alongside the one we are used to. That dinner does not have to be a piece of meat along with potatoes, rice or pasta, and some sauce and vegetables next to it. There are many ways to vary. Where vegetables, grains and nuts can play the main role, instead of just being additional food. But we must also recognize that this can be challenging and requires a different approach to food. For example, it requires greater variation in diet when replacing animal proteins with plant proteins (Ursin, 2019).

The findings of this study show that half of the respondents are not familiar with the topic and needs more knowledge about analysed issues. Lack of awareness can imply that not all the parents can teach their kids about sustainable food, that is why the education at kindergarten and school is essential. It can be argued that leadership of kindergartens play an important role by choosing what to set focus on. Through the various activities with the special focus on sustainability, food and environment, kids could be involved and learn about these subjects. It is also said that which food kids get in the kindergarten, creates important guidelines for their diets in the adult age (Bergheim & Solemdal, 2012). Ministry of Education also emphasizes the importance that kids have an understanding about plants, animals, landscape and weather. Additionally, it is essential for kids to gain an understanding about sustainable development and relationship between humans and nature. Authorities claim that kids from young age should also have an understanding where does the food comes from. Through the experiments and activities, kids can get an introduction to sustainability and understand the importance of taking care of the environment (Kunnskapsdepartement, n.d.).

5.2. What is the role of non-meat alternatives?

According to the respondents, wider options of non-meat alternatives could be another motivating factor to consume less meat. Thus, it is important to find out the role of non-meat alternatives and discuss if they could help to fix the problem.

Meat alternatives could be described as food, having similar taste, texture, or appearance as meat, but does not include one (Marengo, 2019). Even though there is variety of meat substitutes that can

be found in the present food market, respondents claim that there could be more meat alternatives to choose in the local food stores.

Tofu could be seen as one of the commonly used meat alternatives. It has a mild flavour, which means it can be prepared and served by the own desire and prepared in different cuisines dishes. It is also important that it contains high amount of proteins, which is highly valued component for the consumers (Marengo, 2019). Protein rich plant food is also could be seen as a meat substitute. Plant-based products as beans, mushrooms, lentils, or chickpeas work well as meat alternatives and could be used to get the additional nutrition. Supermarkets also offer already prepared non-meat products as veggie burgers, nuggets, sausages and other types of products which has a very alike appearance and texture as meat. Even though these are most suitable and made for vegetarians and vegans, it could also be a great choice for people who consume meat, but at the same time are aware of the environmental and health issues (Marengo, 2019). Nevertheless, almost half of the study's respondents claim that there could be more variety of those products in the food stores in the local district.

According to senior researcher Antje Gonera in Nofima, leading institute for applied research within the field of food research, the market for vegetarian products is much more mature in other countries that Norway would like to compare themselves with (Haegermark, 2018). Even though it is seen a high increase in the popularity of non-meat alternatives, it is argued that looking at the international level, there are a big number of various and more innovative types of plant-based products, but though still not in Norway (Gonera & Milford, 2018). The plant and protein trend report in Norway presents the market overview and future perspectives of plant-based food and shows the increasing popularity of plant-based diets in the country. It is also expected that plant-based product will be in constant grow. According to the report, consumers mostly value good taste and low price. For some of the users it is also a key thing that the product has the same appearance and texture as meat. The respondents of this study also mention the taste as being the most important reason why meat products are chosen. So, to make the product that tastes as close as possible to meat could play a key role in increasing the popularity of those products.

Another aspect to take into account, is the appearance and the texture of the product. Some consumers who really like, but try to eat less meat, claim that if the product looks very similar to

the meat, is more tempting and looks appetizing. On another hand, people who do not like to meat, do not want meat analogues look totally the same as the real meat. The local market can offer meat substitutes that from the appearance look just as meat and could be hard to recognize the difference from the real meat (figure 13). Some consumers also desire the real texture of meat, which could be challenging to create. Beef alternatives is only created as mice, but the producers are working on creating the very alike texture of plant-based beef (Gonera & Milford, 2018). So, it can be claimed that popularity of those products mostly depends on the reasons why consumers decided not to eat meat. For some part, most important factor meat alternative being as similar as possible to real meat, while others are looking for more natural alternative without those similarities.



Figure 13. Example of non-meat alternatives. (Source: REMA 1000, 2017)

The price of the non-meat alternatives is also an important factor, as this is the third most often mentioned factor of the respondents which would motivate them to consume less meat products. It can be argued that people face the dilemma between buying cheaper not environmentally friendly product, or more expensive, but ecological and sustainable food. Prices in Norwegian markets vary, but it is claimed that prices of meat alternatives are just as high or even higher than the real meat. Usually, meat alternatives are more expensive than processed meat products, but at the same time cheaper than high quality meat products as beef stick ribs (Gonera & Milford, 2018). Few respondents from the interviews tell that they wish to use more plan-based food, but they find it to be more expensive than the regular meat, so they end up buying the cheaper product. This may be effecting the households with less incomes most, which prioritize the price over the quality. It is

also important to note that there are increasing numbers of young age vegetarians and vegans. This trend can be seen from the various surveys, which shows that young people are driving towards non-meat diets and can be the threat to the meat industry (Bradbury, 2020). Taking this into consideration, it can be argued that the price plays an important role between younger consumers. As usually younger people, who are also overrepresented among vegan and vegetarian diets followers (Gonera & Milford, 2018) have lower income, meat-alternatives should be affordable for this group of customers.

5.3. What is the role of the culture?

Analysing the diets preferences, it is important to reflect on the wider perspective and see what lies behind the meat eating habits from the historical point of view. Nowadays it can be seen very high number of meat consumption in western world. People's dietary behaviour can tell a lot about their identities as members of western societies. This gives a floor to a discussion why meat is so important in the western culture.

Already decades ago, scholars discussed unquestionable role of culture to the humans' diets. Fiddes discussed that "we are somehow 'meant' to eat meat because of our dentition or the form of our guts; because men especially 'need' it to grow up strong and healthy; or because it is somehow instinctive" (Fiddes, 1994: 274). Respondents of this study also gives some of those reasons as main arguments why do they eat meat. They argue that meat is nutritional and gives a lot of energy. They also describe it as an old habit and that they have been influenced by their family. 2 of the respondents claim that they were told by their parents that meat is necessary for a healthy diet, so those believes were created in the early childhood. Men also mention that they were told that meat eating is a sign of masculinity. Nowadays it can be seen that healthy diet does not particularly need to include meat, but the idea that meat is necessary, in order to grow and be healthy, could lie deeply in the culture.

Looking through the history, it was claimed that meat tend to make people fat, which was also seen as a sign prosperity (Fiddes, 1994). However, nowadays western culture prefers sliminess what may also could be seen as a cultural trend. 3 respondents mention that health issues motivate them to eat less meat, especially the risk of obesity. They argue that meat contains higher amount of fat then

plant-based food, so eating too much meat could give a higher chance of gaining weight. Two different perceptions of human body show how does the culture and environment shape people's understanding about the food and physical look. Thus, it can be claimed that the status of the meat depends on 'our culture's cosmology, tacit assumptions, philosophical premises, spirituality' (Fiddes, 1994: 276). It can also be argued that different cultures with different religions also have contrasting view towards meat. In some religions, one type of meat could be highly valued while other types of meat could be restricted. These specific beliefs of different cultures lay deeply in the roots and do influence humans' diets. As the beliefs and trends are always changing, the understanding of food and meat changes too.

In some cultures, eating meat could be also seen as a sign of prosperity. This was seen in the evolutionary past, but could also be detected in the present world. For instance, the ability to eat meat in Brazil and China was a symbolic of a social and economic progress, which also meant westernized, progressive way of life. As it seen from the literature review, Brazil and China are countries consuming most beef globally after United States. Another thing laying in the culture, seen in Brazil is the cultural importance of the barbeque, which is called as a deep tradition. So, refusing to eat it, could mean the refusal of being a part of the group (Happer & Wellesley, 2019). According to the research by the University of Sydney and the Monash University (University of Technology, 2018), ability to eat meat is also seen as a symbol of power and status. The research shows that those, having lower income have a stronger preference for meat than those being in the higher socio-economic scale. So, developing countries are adopting western diets. As the income level is growing, there could be seen an increasing animal-based food consumption in developing countries and between growing middle-class. This creates even higher risk for climate change and food security as it is going to be a challenging task to feed the growing population. Especially when overpopulation and overconsumption are seen as one of the reasons to cause the depleting of natural earth resources (Richardson, 2018).

It can be also argued that meat is promoted in the present culture. It is normal that majority of sold food at supermarkets or restaurants contain meat. Few of the respondents mention the fact that there is a lack of non-meat options of food in the canteen at work, especially during the low sales period during the Covid-19 pandemic. The majority of local restaurants also focus on the dishes containing meat as there are usually only few non-meat alternatives to choose. While the vegetarian or vegan

options are left behind from the menu, it shows the normality of eating animals-based products. 2 of the respondents also claims that it would motivate them to consume less meat if the non-meat alternatives would be easier reachable in the store. So, it can also be argued that it is not always easy to find non-meat alternatives, as it is still lack of choices in the local stores.

5.4. Creating new habits

The last part of the discussion is reflecting on humans' habits. Nowadays there are more and more concerns about meat eating because of its effect to humans' health, environment and animals' welfare, which make people reconsider their habits. However, meat eating is often a habit having deep roots, so even small dietary changes require dedication and strong will.

It can be argued that people face the dilemma as dinner without meat may often be seen as incomplete, at the same time more people tend to think about sustainability and want to live and eat more sustainable. It is common that people wish to live different life, but are not ready to change their behaviour, as changing habits requires work and commitment. Creating new routines also craves motivation, which should come from inner urge for change to be permanent (Dun, 2015). The answers from the interviews show that respondents mention they were told that meat is necessary part of diet and they have been served meat daily. So, it can be argued that big group of people creates eating habits and attitude to food from the early childhood, so changing those habits could be a challenging task.

It can be noticed that big part of society consumes meat while at the same time people declare that they do care about animals. This can be seen as a paradox, because those activities contradict themselves. Even though people love and care about animals, it is not strong enough reason not to eat them. This can also be seen as a matter of habit - people get more knowledge and understanding about the consequences of their behaviour, but they are not always ready to create new habits. People also face the dilemma between purchasing not environmentally friendly meat or more expensive plant-based meat alternative. It means that those who want to eat more sustainable food, needs to pay more, but with the lack of motivation and income, it is often easier to go for a cheaper option. It can be a habit to purchase meat on the store, so changing the habit to a new one which costs more, cannot always be an easy task. Another motivating aspect to change eating habits is health issues. It

is paradoxical that some people claim that they do not want to eat meat, because it can have a negative effect on their health. At the meantime, others do not want to stop eating meat as not eating meat will also have an impact to their health. This part of consumers may raise their concerns as they are not sure if they get all necessary nutrition from non-meat products. They also think that meat is essential for a healthy diet. Other part of consumers thinks that meat can increase the chance to get some diseases or obesity. So, it can be argued that some groups of people do not have enough knowledge about the non-meat diets nutritional components and only value proteins gained from the animals' products. In order to change those patterns, more knowledge about the topic is needed.

There could be one more paradox found in the respondents' answers. 8 of the respondents claim that lower price could be a motivational factor to consume more plant-based products. At the same time while answering another question, 4 respondents claim that the increased price of meat would not change their preferences and habits. These respondents claim that in Norway many people have good economy, so small amount of price increase will not be taken into account, while this may do more influence in poor countries. This is paradoxical that increased price of meat products may not influence people's habits, but higher price of non-meat products makes it less motivating to purchase those products.

There are different initiatives encouraging people to consume less meat. For instance, international campaign Meat Free Monday is inviting people not to eat meat on Mondays. It is argued that this is a great opportunity to eat healthier and contribute positively to the environment (Meat Free Monday, n.d.). It can also be argued that if there would be policies regarding a set number of veggie-only days in public cafeterias, that could be an effective way to decrease the consumption of meat and create new positive behavior. Findings of this study show that there is often a lack of vegetarian alternatives in the public eating places, rather with only few non-meat options. According to the respondents, this makes it harder or sometimes impossible not to buy meat. So, it can be seen that public cafeterias promote meat, while the policies regulating veggie-only days could make society to change their eating habits.

6. Conclusion

As it is known, meat industry has a great negative effect to the environment. It is thus argued that reduced meat consumption is one of the ways to reduce the impact to climate change. The aim of this research has been to analyze how does climate change shapes people's attitude towards meat consumption and analyze what lies behind consumers' decisions when choosing meat products. I have also looked at which factors would motivate people to consume less meat and move towards non-animals-based diets.

The findings of this study show that half of the respondents lacks knowledge about analyzed phenomena and are not aware of meat industry's negative impact to the environment. The fact that meat industry is responsible for great amount of water and land use, deforestation, huge amount of emissions as well as other negative effects to the nature, is new for many of the study's participants. Not being aware of the problem reduces the chance to consume less meat because of environmental reasons. According to the findings, wider and achievable knowledge about those aspects would make society more aware about their daily eating habits and may reduce their consumption of meat. Media plays an important role there - as the level of the problem is very high, there should be more attention given in the public arena in order to raise the awareness.

Meat alternatives also play an important role in the analyzed phenomena. Majority of the study's respondents argue that taste is one the most important component why they choose dishes including meat. So, to make the product that tastes as close as possible as meat could play a key role in increasing the popularity of meat alternatives. Besides that, almost half of the study's respondents claim that there could be more variety of those products in the food stores in the local district. Norwegian researches working in the food research field argue that the market for vegetarian products is much more mature in other countries that Norway would like to compare themselves with. Price is also an important factor to consider as it is argued that meat-alternatives are usually more expensive than regular meat which makes it harder to create new habits. As it is known that high consumption of red and processed meat may increase the chance of getting some health diseases, health aspect is also seen as an important component when choosing less meat products in the diets.

It is also important to look at the analysed phenomena through the wider perspective; thus, the importance and role of habits as well as cultural differences are analysed in this study. It can be seen that different cultures and background shape people's understanding about the food. Many study's respondents claim that they were taught from the childhood that meat is a necessary component of a healthy diet. From the information available, it can be seen that healthy diet does not particularly need to include meat, but the idea that meat is necessary, in order to grow and be healthy, could lie deeply in the culture. Referring to habits, it can be argued that meat eating is often a habit having deep roots, so even small dietary changes require dedication and strong will.

Further research

This study contributes with the knowledge about how does climate change shape people's attitude towards meat consumption and under which circumstances the consumption could be reduced. Nevertheless, this study was limited in terms of number of respondents and geographical boundaries. Time limitations provide an ability to interview only limited number of respondents. During this research, I only interviewed people who eat meat. I think that it would be beneficial to analyze the thoughts of vegetarians and vegans what would provide knowledge about the factors that made them change their eating habits and to examine how their health and lifestyle have changed. As diets including less animals-based products help to reduce GHG from food, it would be valuable to get more knowledge about consumers well-being without consumption of meat.

This research had time and size limitations, so further research could include other municipalities in the country. Other environment and lifestyles may show different angles and present different attitudes of other part of society. It would be also interesting to study different countries or cultures and compare the results. As it is seen, cultural aspects play an important role and sometimes meat eating has deep roots, so respondents from different places could see the analyzed phenomena through different angles and face diverse challenges. I also think that it is decisive to teach people about the analyzed topic, so further research could look at the possible ways to create awareness and make the topic more available in the public agenda. It is argued that eating habits and understanding about the nature develops from the young age. This may be an inspiration to further studies which can look at the actions which may be taken to implement environmental activities in kids' educational institutions.

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