

**THE CLIMATE COST OF ANIMAL FOODS
A CASE STUDY OF ENVIRONMENTALISTS IN ISTANBUL,
TURKEY**

**MSc Planet Europe,
European Spatial Planning, Environmental Policy and
Regional Development**

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ABBREVIATIONS

CH₄: Methane

CO₂: Carbon dioxide

EC: European Commission

EU: European Union

FAO: Food Agriculture Organisation

GHG: Greenhouse Gases

IPCC: Intergovernmental Panel on Climate Change

IWMI: International Water Management Institute

NGO: Non-Governmental Organisation

N₂O: Nitrous oxide

OECD: Organisation for Economic Co-operation and Development

UN: United Nations

UNFCCC: United Nation Framework Convention on Climate Change

UK: United Kingdom

TurkStat: Turkish Statistical Institute

TR: Turkey

ABSTRACT

The significance of the impact of animal foods on global warming has emerged in the field of global environmental problems over the last decade. Although the link between animal foods consumption and global warming has been known for many years, people's awareness of the impact of animal food practices on global warming it has not really been addressed. There are multiple bodies of research that explore the production process of animal products. However, little research has been dedicated to the consumption side.

This dissertation is intended to further our understanding of the extent to which environmentalists in Istanbul are aware of the impact of animal food practices on global warming. Seven semi-structured interviews were conducted with members or employees of national or international environmental NGOs in the city.

The dissertation looks at animal foods consumption from the perspective of practice theory and participants in this research are considered the 'carriers' of practice. This theoretical framework offers a perspective that focuses on consumption at the level of collectives rather than of individual consumers to better understand this phenomenon.

Results indicate that Istanbul environmentalists generally exhibit a high level of awareness of the impact of animal foods practices on global warming. However, the results also show that participants' animal food practices are based on different materials, competences and meanings. Findings suggest that participants perceive 'meanings' as the main drivers of their animal food consumption. 'Material' and 'competence' elements, meanwhile, play little part in the food practice of participants. Analysing participants' animal food practices using an element-based approach revealed drivers and barriers of animal foods consumption. Understanding these drivers and barriers might play important role to make animal food practices more sustainable for policy makers.

“Everywhere I go I find that a poet has been there before me”¹

Sigmund Freud

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

This dissertation is inspired by an ethnographic field study conducted by Cardiff University academics, entitled *Animal foods² and climate change: shadowing eating practices* (Cole et al. 2009). The study used the method of shadowing to assess the extent to which six UK households were aware of the connection between animal food consumption practices and climate change. The results of the study show that there is negligible awareness of the connection between animal food consumption practices and global warming. The study has suggested that “future research in this area needs to be cognizant of the complexity of meanings ascribed to both animal foods and environmental concerns in order to be informative of efficacious social policies aimed at reducing GHG emissions from the food system” (Cole et al. 2009, p.167). This dissertation seeks to transpose the main research problem of the British study to Istanbul, Turkey, using a different methodological approach, comprising semi-structured interviews, and focusing on a specific group of people who work for national or international environmental NGOs in the city. Theories of practice will provide the theoretical framework for assessing the awareness of the impact of daily animal food practices³ on global warming among environmentalists in Istanbul, Turkey. The rationale for the selection of case study, profiles of participants, methodology and methods will be elaborated in Chapter Three and Chapter Four.

¹ This is a caption on a wall of the Freud Museum in Vienna.

² Animal foods include different items that come from an animal source such as meat (red meat, poultry and pork), seafood, eggs, milk, yogurt and cheese.

³ In the context of this dissertation, the term ‘animal food practices’ refers to an action (or a performance) of sourcing, preparing and consuming animal foods.

“Feeding cities takes a gargantuan effort; one that arguably has a greater social and physical impact on our lives and planet than anything else we do. Yet few of us in the West are conscious of the process. **Food arrives on our plates as if by magic, and we rarely stop to wonder how it got there.**”

Carolyn Steel – Hungry City

1.2. Does Animal Foods Consumption Matter?

The significance of the impact of animal foods on global warming has emerged in the field of global environmental problems over the last decade. Studies show that livestock industry is the largest anthropogenic user of land and contributes to a variety of environmental problems, primarily global warming (IPCC 2007; Garnett 2007; Koneswaran and Nierenberg 2008; Garnett 2009). According to the IPCC report (2014), anthropogenic emissions of GHG are the highest in history. GHGs include CO₂, CH₄, N₂O and fluorinated gases. Forestry, other land use changes, burning of fossil fuels, cement production and flaring have contributed significantly to global anthropogenic CO₂ emissions. Agriculture is the primary cause of increases in CH₄ and N₂O, with around 12 per cent of global GHG emitted in 2004 coming from the agricultural industry (IPCC 2007). According to FAO report (2006), the livestock industry (18 per cent of global GHG emissions) produces more GHG than the entire transportation industry (13 per cent of global GHG emissions). The report also stresses that GHG emissions from animal agriculture are in the form of CH₄ and N₂O, which have respectively 23 times and 296 times more global warming potential than CO₂ (Steinfeld et al. 2006).

In terms of worldwide demographic changes, natural resources are being consumed at a rate too rapid to be sustained without depleting the Earth's capacity to reproduce them (Munasinghe 2012). The 2015 World Population Prospects Revision by the UN shows that the world population has now reached 7.3 billion and is projected to reach 11.2 billion by 2100. An alternative approach to global climate change policy is required to address the rapid growth of unsustainable consumption of natural resources. It has been argued by Munasinghe (2012) that in order to achieve global sustainable change, one of the most important challenges is to alter people's behavioural contexts and

consumption patterns in parallel with technology and innovations for sustainable development. Therefore, it is important that individuals, rather than just governments or corporations, take personal responsibility for the effects of their consumption. Although the link between animal foods consumption and global warming has been known for many years, partly due to deforestation carried out in order to grow and feed livestock (Steinfeld et al. 2006; Garnett 2007; Koneswaran and Nierenberg 2008; Garnett 2009; Cole et al. 2009), awareness of the impact of animal foods consumption on global warming has not really been addressed. Studies conducted in rich countries such as the UK, Finland and Australia show that awareness is remarkably low even among those who were found already to believe that food-related actions are important to help the environment (Cole et al. 2009; Pohjolainen et al. 2016).

This dissertation looks at animal foods consumption from the perspective of 'practice theory' and participants in this research are considered the 'carriers' of this practice (Reckwitz 2002). This theoretical framework offers a perspective that focuses on "the collective aspects of consumption" rather than the individual consumer (Gram-Hanssen 2011, p.61) to better understand this phenomenon.

People have to consume multiple types of products in order to feed themselves. Eating habits are directly connected with consumption habits and consumption habits are constituted by different kinds of practice in everyday life. Moreover, practices are affected by various factors such as culture, religion, and geography. As a result, different types of eating and consumption habits influence global warming to different degrees.

It is important to understand not only how practices connect to each other, but also that they are sometimes unconscious actions into which people are sometimes 'locked in', as Sanne (2002) has argued. This author states that reducing foods consumption and becoming more sustainable consumers play significant roles in achieving sustainable development. Sanne also stresses the effects of structural forces such as the conditions of working life and urban living that drive consumption: people "may not be so keen and willing [to consume] but are rather locked-in by circumstances" (Sanne 2002, p.273). Building on

that point, Shove and her colleagues advocate a focus on practices rather than on individuals' behaviour. They argue that social practices entail the active integration of three main elements: *materials* (objects, tools, infrastructures and the body itself as a carrier of practice), *competences* (skills, know-how, background knowledge, and understanding) and *meanings* (images, conventions, and history) (Shove et al. 2012). Shove (2011) states that policy makers currently put considerable emphasis on individual responsibilities and their choices, but if we understand that the individual consumer is just a "carrier of practices", as Reckwitz (2002) has suggested, the targets of intervention should be the practice itself and the elements that influence its evolution.

This dissertation is intended to further our understanding of the extent to which environmentalists in Istanbul are aware of the impact of animal food practices on global warming. Semi-structured interviews have been used to reveal the elements of animal food practices in order to gain a better understanding of the collective rather than individual activity. If awareness is as low as other research has suggested (see Cole et al. 2009), a practice theory approach will help us to understand the elements of animal food practices and how to make them more sustainable.

Environmental problems became a significant part of the political agenda in the late 1990s (Şahin 2014). In 2004, Turkey became a party to the UNFCCC and, in 2009, it signed the Kyoto Protocol with reference to the country's *sui generis* position.⁴ In 2009, the Turkish Ministry of Environment and Urbanization prepared the *National Climate Change Strategy for 2010–2020* and, the following year, the *Climate Change Action Plan for 2011–2023* was published by the Ministry of Environment and Urbanization. The Climate Change Action Plan is a road map which identifies the government's short-, medium- and long-term targets for combating climate change for the energy, building, industry, transportation, waste, agriculture, land use and forestry sectors (Turkish Ministry of Environment and Urbanization 2011). In the 2016 Environmental

⁴ Turkey, as a developing country, still needs to improve its access to finance, technology and capacity building. As such it is defined as having a *sui generis* position, which means that it is an Annex 1 country without any mitigation commitments.

Performance Index, Turkey ranked 99th out of 180 countries (Yale Center for Environmental Law and Policy 2016). Moreover, Turkey had the highest rate of increase in GHG emissions among the Annex I countries, with a 110.4 per cent increase in total GHG between 1990 and 2013. Even though this is because of Turkey's sui generis positions between Annex 1 countries, Turkey needs to show progress in addressing climate change (Turhan et al. 2016) because it has made little progress in its efforts to do so since the 1990s. Paker et al (2013, p. 764) argue that ecological issues have so far proven difficult for either commercial or governmental actors to control: "given growing doubts about state capacity and willingness to address environmental problems," they write, "different actors at local and national levels, with different ideological and environmental agendas, have begun to emphasise the need for a new division of labour between the state, the private sector, and civil society." According to Turhan et al (2016, p. 448) climate change policies in Turkey "remain under-investigated" and, as an EU candidate and a member of the OECD, Turkey should emphasise climate change policies.

Turkey's Climate Change Action Plan 2011–2023 does not impose national emissions reduction goals and all the targets it specifies are non-binding. One of its goals is to impose "limitations on GHG emissions from the agriculture sector", which is further broken down to two objectives: to "identify potential GHG emissions limitations in the agriculture sector" and to "decrease the rate of GHG emissions from vegetal and animal production". However, this reduction target only covers animal production, not consumption. The aims are the following (Turkish Ministry of Environment and Urbanization 2011, p.122):

- To limit GHG emissions from animal production;
- To establish the support/incentive programme necessary to promote pasture-based animal husbandry and;
- To identify feed ratios and training farmers to reduce methane gas from enteric fermentation.

People's consumption patterns also play an important role in the achievement of sustainable development (cf. Munasighe 2012). In other words, in order to limit GHG emissions from the animal agriculture sector, consumption

processes as are as important as production processes. There are multiple bodies of research that explore the production process of animal products. However, little research has been dedicated to the consumption side. This paper aims to close this gap by examining animal food practices. This may help to illuminate drivers and barriers for animal foods consumption that are not currently represented in the literature.

Istanbul, Turkey has been selected as the case study area where the awareness of the impact of animal foods consumption on global warming will be investigated. As a developing country, Turkey's social and economic landscapes are rather different from those in richer countries (e.g. the UK, Australia, Netherlands and Finland). Therefore, in order to effectively gather data from a small sample, all participants in this study were selected from a narrowly specified group of people: environmental NGOs employees in Istanbul.

1.3. Research Questions and Research Aim

This section lays out the aims of the study and the research questions.

AIM: To explore the level of animal foods consumption of environmentalists in order to understand whether there is a connection between their consciousness of global warming and animal food practices and develop recommendations with the help of practice theory approach towards more sustainable animal food practices in Istanbul, Turkey.

Main research questions:

What is the level of awareness, if any, of the impact of daily animal food practices on global warming among Istanbul environmentalists?

How can these practices be studied in order to understand the barriers to and opportunities for change that would encourage more sustainable consumption?

Sub- questions:

Which elements do environmentalist perceive as drivers and barriers to reduced animal foods consumption?

What are the recommendations for social policies based on the practice theory, particularly Shove's et al.'s element-based approach, in order to make animal food practices more sustainable?

1.4. Dissertation Structure

The dissertation consists of five chapters. The introduction lays out the background of the study, as well as the research problem, research questions and aims. Chapter Two provides a literature review on how humans are responsible for global warming and outlines the practice theory approach to consumption studies. Chapter Three outlines the research methodology for the study, including its epistemological and ontological positions, method, ethical considerations. Also explained in Chapter Three are the case study approach and the rationale for the selection of the case study. The data gathered from semi-structured interviews are interpreted through the lens of practice theory in Chapter Four. Chapter Five offers analysis and conclusion, remarks on the research questions, the limitations of the study and recommendations for further studies.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Chapter Two draws on theoretical literature to explain the origins of the debate on the relationship between animal foods consumption and global warming. By explaining that relationship, a theoretical approach will help to reveal the importance of analysing individual action to better understand the collective aspects of consumption.

This dissertation will examine animal foods consumption through the lens of theories of practice. Chapter Two consists of four different sections. Section 2.1 provides an introduction to human influence on global warming and the importance of sustainable development. Section 2.2 focuses on the growth of GHG emissions due to livestock. Section 2.3 unpacks debates from the existing literature on practice theory and its application to the study of food consumption. This leads to a deeper understanding of reproduction and innovation in practices. Finally, section 2.4 summarises the relationship between the literature review and the aims of the present research.

2.1. Anthropogenic Influences on Global Warming and the Importance of Sustainable Development

“Making The Revenant was about man's relationship with the natural world. A world that we collectively felt in 2015 was the hottest year in recorded history. Our production [The Revenant] needed to move to the southern tip of this planet just to be able to find snow. **Climate change is real; it is happening right now.** It is the most urgent threat facing our entire species, and we need to work collectively together and stop procrastinating. [...] Let us not take this planet for granted.”

Leonardo DiCaprio's Oscar acceptance speech (2016)

Global environmental problems, particularly climate change, have long been known (IPCC 2007), but they have increased in “scale, scope, visibility and complexity” in recent decades (O'Neill 2009, p.24). Since the twentieth century, when the link between “industrialisation, globalisation and environmental degradation” was clearly established by environmental scientists, the environment has become a global rather than local or regional concern (ibid). However, environmental issues have gained considerable attention from the

public since the IPCC was awarded the Nobel Peace Prize in 2007 for emphasising the anthropogenic causes of climate change.

GHG created by human activities have been the most important known driver of climate change since the twentieth century – the industrial activities that modern civilization depends upon have raised atmospheric CO₂ levels (IPCC 2007). The most recent IPCC report (2014) states that the Earth’s surface warmed by 0.85°C in the period between 1880 and 2002, from 0.65°C to 1.06°C. The scientific community agrees that human-caused GHG emissions are the dominant cause of Earth’s average temperature increases over the past 250 years (IPCC 2014).

Table 1: Global GHG Emissions by Gas (%)

CO ₂ (fossil fuels and industrial processes)	65%
CH ₄	16%
CO ₂ (Forestry and other land use)	11%
Nitrous Oxide (N ₂ O)	6%
Fluorinated Gases	2%

Source: IPCC 2014

Table 1 shows that burning fossil fuels and industrial processes produce 65 per cent of global GHG emissions. However, CO₂ emissions from agricultural activities (forestry and land use), which constitute 11 per cent of the total, are not included in this percentage. The agricultural sector is the primary cause of increases in CH₄ and N₂O: 16 per cent and 6 per cent respectively (IPCC 2007).

Table 2: Global GHG Emissions by Economics Sector (CO₂ equivalent)

Electricity and Heat Production	25%
Agriculture, Forestry, and other land use	24%
Industry	21%
Transportation	14%
Other Energy	10%
Buildings	6%

Source: IPCC 2014

Table 2 shows shares of GHG emissions according to sector. 25 per cent comes from electricity and heat production; 24 per cent from agriculture,

forestry and other land use; 21 per cent from industry; 14 per cent from transportation; 10 per cent from other energy (e.g. fuel extraction, refining, processing, and transportation) usage; and 6 per cent from buildings. GHG emissions from agriculture, forestry and other land usage represent almost a quarter of global GHG emissions. However, this percentage does not take into account the resources used in their production from the bottom up, such as electricity required for the storage of foods, water for animals and fuel oil for transportation.

It has been argued that the world is an interdependent organism that requires collective action between countries to prevent climate change (O'Neill 2009). Thus, national governments need to cooperate to address common environmental issues like global warming (ibid). The United Nations Conference on the Human Environment (Stockholm, 1972) and United Nations Conference on Environment and Development (Rio de Janeiro, 1992) gave rise to two declarations which represent the start of the 'modern era' of international environmental law and global environmental cooperation (O'Neill 2009). With the Stockholm conference environmental problems turned into major issues at the international level, for both developed and developing countries. The Rio declaration (1992) raised international awareness and set a key environmental commitment to the production of national sustainable plans (Cowell 2013). Even though the term 'sustainable development' was used for the first time in *Our Common Future*, a report published by the World Commission on Environment and Development in 1987, which refers to "development which meets the needs of the present without compromising the ability of future generations to meet their own needs", the Stockholm Conference (1972) started the debate over the relationship between economic development and environment protection. Twenty years later, at the conference in Rio (1992), the three pillars of sustainable development were set by the UN: ecology, economy and equity. According to a UN statement issued in 2010 (Murphy and Drexhage 2012, p.2),

Sustainable development is a visionary development paradigm; and over the past 20 years governments, businesses, and civil society have accepted sustainable development as a guiding principle, made

progress on sustainable development metrics, and improved business and NGO participation in the sustainable development process.

Since the Rio Declaration, the goal of sustainable development has become accepted worldwide. As part of global sustainable development strategy, the EU plays a major role in the reduction of global GHG emissions. The EU 2020 Strategy sets three fundamental targets to achieve by 2020 (European Commission 2010):

- A 20 per cent reduction in EU GHG emissions from 1990 levels;
- A rise in the share of EU energy consumption produced from renewable resources to 20 per cent;
- A 20 per cent improvement in the EU's energy efficiency.

Although the developed world is the biggest polluter, both developing and developed countries aim to reduce their GHG emissions for the simple reason that the effects of climate change are not confined to political boundaries: a sustainable future requires international cooperation. The EU has succeeded in cutting its GHG emissions by 18 per cent since 1990 (European Commission 2014). Nevertheless, the consumption of animal food products is growing steadily and the EU is the leading animal foods consumer after China and the USA (Garnett 2007; IPCC 2007; Alvarez-Kalverkamp et al. 2014). Since economic and population growth are the most important drivers of increases in global CO₂ emissions from fossil fuel combustion (IPCC 2007), it is important to note that the EU's GDP grew by 45 per cent between 1990 and 2012 (European Environment Agency 2012).

2.2. Growing GHG Emissions Due to Livestock

“We cannot solve the climate problem with just what we are doing with fossil fuels and energy. Food is a big part of it.”⁵

Doug Boucher

Climate change is often cited as the most serious environmental challenge humanity has to face. It has been known for decades that livestock supply chains are a significant contributor to global warming. However, the role of animal agriculture in climate change is underestimated, mostly because of calculation parameters that do not take into account all the resources used in the course of its production. Changes in land use (including, but not limited to, deforestation caused by livestock), fertiliser production and animal product processing (slaughter, packing, and delivery) contribute significantly to global GHG emissions. The most frequently cited UN report (2006), *Livestock's Long Shadow – Environmental Issues and Options*, shows that the production of animal foods are responsible for 18 per cent of global GHG emissions (Steinfeld et al. 2006). When considering livestock and their by-products, this accounts for 51 per cent of global GHG emissions (World Watch Institute 2009). An IPCC (2007) report states that GHG emissions from livestock supply chains represent 14.5 per cent of all human-induced emissions. Increases in CH₄ concentration are predominantly due to agriculture and fossil fuels – CH₄ constitutes 16 per cent of global GHG emissions (IPCC 2007). The increase in N₂O concentration is primarily due to agriculture – 65 per cent of global N₂O emission come from livestock (Steinfeld et al. 2006; IPCC 2007). According to the FAO report (2006, p. xx), the global livestock sector is growing faster than any other agricultural sub-sectors and contributes about 40 per cent of global agricultural output:

The environmental impact per unit of livestock production must be cut by half, just to avoid increasing the level of damage beyond its present level.

⁵ (See Halper 2015).

FAO (2013) states that GHG emissions from agriculture, forestry, and fisheries have nearly doubled over the past fifty years and are expected to increase by another 30 per cent by 2050 unless reduction policies are adopted on a global scale. It seems that being conscious of our diets is one of the most immediate ways to reduce GHG emissions. The latest report published by the FAO (2013), *Tackling Climate Change Through Livestock*, sets out contributors to the animal agriculture sector's emissions. Feed production and processing is the main source of emissions, constituting 45 per cent of the total, while enteric fermentation from ruminants represents 39 per cent of sector emissions and manure decomposition represents 10 per cent (Gerber et al. 2013). The rest is emitted from the processing and transportation of animal products. Moreover, animal agriculture is responsible for between 20 and 33 per cent of all fresh water consumption in the world today (Mekonnen and Hoekstra 2012). Livestock occupies a third of the ice-free land in the world (Steinfeld et al. 2006).

2.3. Practice Theory

Theories of practices or practice theory mainly focus on the relationships between humans and social structures (society). The foundations of practice theory are associated with many philosophers: Heidegger, Wittgenstein, Bourdieu (1977), Giddens (1979, 1984) and Foucault (1979). However, Ortner (1984, 2006), Schatzki (1996), Reckwitz (2002), Warde (2005), Shove (2006, 2011), Pantzar and Shove (2010), and Shove et al (2012) stress the centrality of the human body and apply theories of practice to a variety of fields such as environmental studies, consumer behaviours, consumption patterns and social policy.

Ortner defines a practice theory as one which "... seeks to explain the relationship(s) that obtain between human action, on the one hand, and some global entity which we call 'the system' on the other" (1984, p. 148). In other words, practice theory focuses on things people 'do' and 'say' on a daily basis (Reckwitz 2002; Ortner 2006; Warde 2005).

As noted in the introduction, this dissertation aims to contribute knowledge about the awareness of the impact of animal foods consumption on global

warming. Thus the semi-structured interviews are here used to understand whether there is a connection between animal food practices and awareness of global warming among environmentalists in Istanbul. Due to the content of the dissertation, this section will look at the questions of what constitutes a practice and how to apply practice theory to the study of consumption and animal foods consumption.

The approaches of Schatzki (1996), Reckwitz (2001), Warde (2005), and Shove and her colleagues (2012) will be discussed and applied through this section. However, Shove et al's (2012, p. 22) element-based approach – based on the principle of “de-centring the human actor” which is useful in conceptualising commonality – will be the main theoretical basis for the interpretation of the empirical results of interviews.

2.3.1. Practice and Elements of Practice

Schatzki (2001, p.342) defines practice as an “array of activity” in which the human body is the nexus. Since the human body is the nexus, practice can be interpreted as an ‘act’ or a ‘performance’ by human bodies (Schatzki 1996; Reckwitz 2002; Shove et al. 2012). However, Reckwitz's (2002) accounts of what constitutes a practice are widely accepted among social scientists. According to Reckwitz (2002, p. 24):

A ‘practice’ (Praktik) is a routinized type of behaviour which consists of several elements, interconnected to one another: forms of bodily activities, forms of mental activities, ‘things’ and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge.

Since “social practices are bodily and mental routines”, individuals are the carriers of practices (Reckwitz 2002, p.257) and practices are connected to each other; no practice is hermetically sealed from all other practices (Warde 2005, p. 141). Reckwitz (2002, p.250) defines practice as a pattern but also as a tautology:

A practice is ... thus a routinized way in which bodies are moved, objects are handled, subjects are treated, things are described and the world is understood. To say that practices are ‘social practices’ then is indeed a tautology: A practice is social, as it is a ‘type’ of behaving and

understanding that appears at different locales and at different points of time and is carried out by different [bodies]/minds.

As Reckwitz has argued, practice consists of “a routinized set of bodily performance” and depends upon the interconnection of elements: “bodily knowledge, know-how, and particular ways of interpretation” (2002, p. 252). Pantzar and Shove (2010) developed a model influenced by Reckwitz’s idea of the ‘interconnectedness of elements’, which is to say that carrying out a practice means using certain things in a particular way. They developed an element-based approach in order to better understand the birth, reproduction and decay of a practice. This element-based approach allows them to understand and analyse reproduction and innovation in peoples’ consumption practices, in order to make these practices in a more sustainable. According to Shove et al (2012), policy makers have for the past few decades mostly targeted individual behaviour change, attitudes and choices when promoting more sustainable ways of life. However, the current emphasis on and interventions into individual behaviour and choices do not make a big difference to people’s lifestyles. Since individuals are the agents who use the services provided to them (Shove 2011), policy makers need to influence people’s everyday practices rather than individual actions. In order to better understand and then influence people’s everyday practice, Shove et al. developed the element-based approach. According to the element-based approach, all practices are made from three elements which are integrated in a dynamic way during the practice (Shove et al. 2012). The three elements of all practice are as follows:

- **Materials** (objects, tools, infrastructures and the body),
- **Competence** (skills, know-how, background knowledge and understanding), and
- **Meanings** (images, conventions and history).

Shove (2011) states that environmental policies, particularly climate change, currently tell the people what they should do to reduce their environmental impact. However, they should not directly tell the people to reduce their environmental footprint, but rather they should influence in the elements of the practices and system of daily life. Since every practice has a history and a

future, the element-based approach enables us to understand how practices occur, change and decay. Therefore, policy makers need to influence animal food practices of people to promote more sustainable ways of consuming animal foods. In other words, collective change to the social and material organisation of daily life is needed to promote more sustainable consumption patterns.

2.3.2. Applying Practice Theory to the Study of Consumption

As previously stated, practice theory has been applied in social studies for a couple of decades, especially since Warde (2005) examined the potential of the practice theory approach for analysing consumption in his most highly cited paper: *Consumption and Theory of Practice*. Since then practice theory has become more popular among researchers interested in consumer behaviour and the environment. Warde (2005, p.132) used theories of practice as a source of “some new insights into how consumption is organised and how it might best be analysed.”

In the context of this dissertation, the term ‘animal food practices’ refers to an action (or a performance) of sourcing, preparing and consuming animal foods. Therefore, it is important to note that animal food practice does not include only consumption. As Warde (2005, p.137) explained, consumption itself is not a practice but a moment in every practice:

[C]onsumption is a process whereby agents engage in appropriation and appreciation, whether for utilitarian, expressive or contemplative purposes, of goods, services, performances, information or ambience, whether purchased or not, over which the agent has some degree of discretion.

Warde (2005, p. 131) also emphasises routine, collective and conventional features of consumption. However, he did not focus on or even mention the elements of practice. He mainly focuses on how all practices are different from but connected to each other, as well as the ways in which transformation in one practice affects other practices, but he did not explain how this transition occurs. Pantzar and Shove’s (2010) account of innovation and reproduction in practice will be elaborated in the next section.

2.3.3. Reproduction and Innovation in Practice

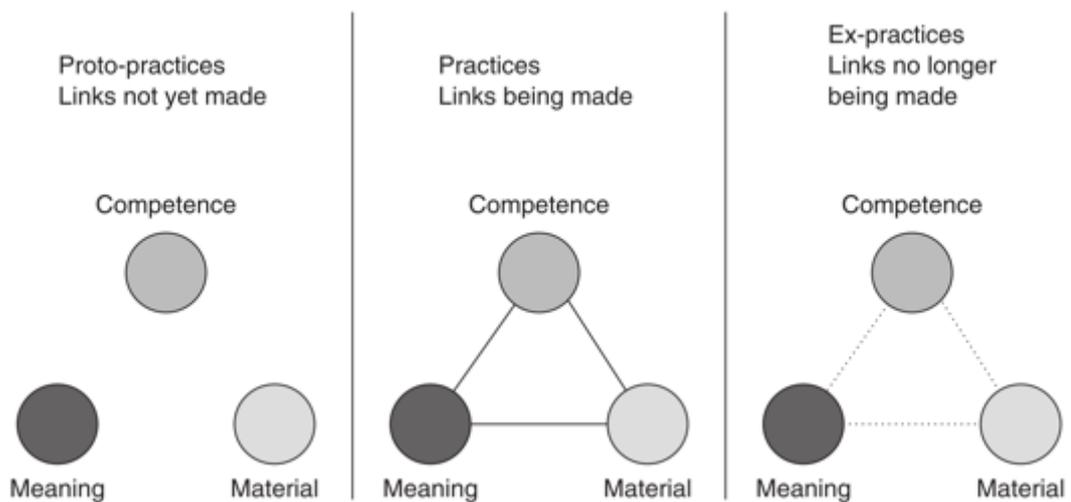
Reckwitz (2002), Pantzar and Shove (2010) and Warde (2005) allege that behavioural change is embedded in social relations and social processes. Pantzar and Shove (2010, p. 457) claim that their element-based approach makes it possible to “describe and characterise processes involved in constituting and reproducing” practice. They explain:

We defined an innovation in practice as a new combination of materials, images and skills and demonstrated how these elements came together and how new associations were made.

In other words, they seek to develop a model to analyse ‘the potential generic process’ involved in practices. According to Shove (2012, p.24) new practices consist of combinations of new or existing elements:

If we go along with the idea that practices exist when elements are integrated, we need to recognise two related possibilities: one is that relevant elements exist but without being linked (proto-practice); the second is that practices disintegrate when links are no longer sustained.

Figure 1: Reproduction of Practices: Proto-Practices, Practices, and Ex-Practices



Source: Shove et al (2012; p. 25)

Figure 1 illustrates this element-based approach. In order to understand how reproduction and innovation occur in practice, Shove et al (2012) identify three possible formulations of their model: (1) in proto-practice, elements are ‘out there’ in the world, and though they exist, they have yet to be integrated; (2) in practice, elements are actively interconnected, and (3) in ex-practice, links

between elements are no longer being made. According to Pantzar and Shove (2010), manufacturers, purchasers and producers attempt to promote links between elements. However, the practitioner is the one who makes this integration happen.

Since the main research question seeks to understand the awareness, assuming there is any, of the impact of daily animal food practice on global warming among Istanbul environmentalists, it is crucial to reveal elements of animal food practices by using the model that Shove and her colleagues suggested. This element-based approach will help to reveal the elements that constitute animal food practices. After laying bare these elements and the links between them, the approach will also offer insight into how to reproduce animal food practices in a more sustainable way. Chapter Four classifies each of the study's participants according to the elements of animal food practices.

2.3.4. Elements of Animal Food Practices

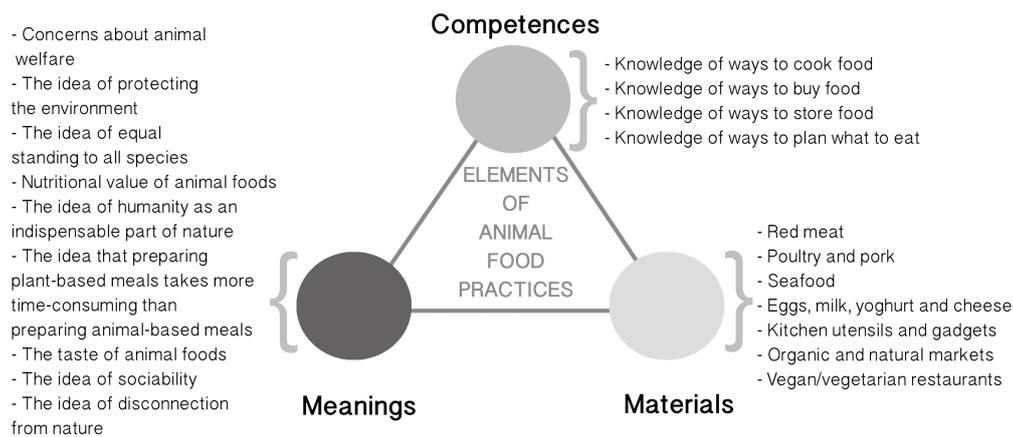
According to Shove's element-based approach, the elements of animal food practices are the following:

- **Materials:** animal foods (red meat, poultry, pork, seafood, eggs, milk, yoghurt and cheese), kitchen utensils and gadgets, organic markets, natural markets, vegan and vegetarian restaurants;
- **Competence:** knowledge of ways to cook food, knowledge of ways to buy food, knowledge of ways to store food, knowledge of ways to plan what to eat; and
- **Meaning:** nutritional value of animal foods, the taste of animal foods, concerns about animal welfare, the idea of protecting the environment, the idea of disconnected from nature, the idea of equal standing to all species, the idea of sociability, the idea of humanity as an indispensable part of nature, the idea that preparing plant-based meals takes more time-consuming than preparing animal-based meals.

The element-based approach helps to make clear how animal food practices can be systematically analysed (see Figure 2). Practice Theory

approach (and the element- based approach) help to decompose ordinary practices (such as eating) into distinct elements that make easier to identify their consequences in terms of sustainability. By exploring the awareness via the element-based approach, it will be possible to shift the focus from individual to collective aspects of consumption and give recommendations for future studies.

Figure 2: Elements of Animal Food Practices



Source: Adopted from Shove et al. 2012; Illustrated by the Author

2.4. The Relationship between Literature Review and Research Aim

In conclusion, the key elements discussed in Chapter Two pertinent to the case study will be echoed through the remainder of the dissertation. The key points are four-fold. First, Global GHG emissions has increased markedly as a result of human activities since the twentieth century. As a result of this increase, climate change is often cited as the most serious environmental challenge humanity has to face. Second, GHG emissions from agriculture, forestry, fisheries and other land uses have nearly doubled over the past fifty years and are forecasted to increase by an additional 30 per cent by 2050. GHG emissions reduction policy requires cooperation between countries to prevent climate change. Third, individual lifestyles which involve unsustainable consumption have an effect on global warming and sustainability policies need to be designed to promote collective rather than individual change. Finally, according to Shove et al.'s element-based approach, it is possible to change elements of ordinary practices in order to make them more sustainable.

CHAPTER THREE: RESEARCH STRATEGY

This chapter aims to develop an appropriate methodological strategy for this study. It starts with an explanation of the ontological and epistemological considerations of the research and goes on to explain the research methodology and case study approach. Then the chapter focuses on research method and data collection. It concludes with a discussion of the ethical considerations and limitations of the research.

3.1. Ontological and Epistemological Position

It is important to outline both the ontological and epistemological positions of any research (Neuman 2003). Ontology is about what exists, according to Neuman (2003, p.94), ontology is “an area of philosophy that deals with the nature of being”.

Since the research aims to further our understanding Istanbul environmentalists’ awareness of the impact of animal food practices on global warming by analysing data from environmental NGOs’ employees, it relies on constructivist ontology. According to Bryman (2012, p. 34):

Constructivism is an ontological position that asserts that social phenomena and their meanings are continually being accomplished by social actors.

Epistemology is an area of philosophy concerned with the creation of knowledge (Neuman, 2003, p. 96), the connection between social theory and research. According to Neuman (2003, p. 69), positivism “reduces people to numbers” which are not relevant to the “actual lives of real people.” On the contrary, the complexities of the social world demand a less reductive research procedure. Therefore, epistemologically, this study takes on an interpretivist orientation. Bryman (2012, p. 30) defines interpretivism as follows:

Interpretivism is predicated upon the view that a strategy is required that respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action.

According to Schatzki (1996, p.221), the interpretive approach enables the researcher to understand “the complex world of lived experience from the point

of view of those who live it". It is important to bear in mind that the researcher's experience and interpretation stands between the data and social theory, since (s)he is the one who translates the "language which we use as researchers to understand and explain social life and the meanings which people already employ to get on with the business of everyday life" (May 2011, p.37).

To conclude, the research takes a constructivist position in understanding the behaviours and 'social worlds' of different individuals in relation to animal foods consumption. Interpretivism is a way of connecting the research with social theory, and specifically the question of how practice theory can help us analyse people's animal food practices.

3.2. Research Strategy

A research strategy is a guideline for the conduct of social research (Neuman 2003; Bryman 2012). Since the aim of the study is to explore the level of animal foods consumption of environmentalists in order to understand whether their consciousness of global warming has an impact on their animal food practices, their opinions, feelings and experiences are crucial to the research procedure. Qualitative research is suitable for this dissertation in order to gain a deep understanding of participants' different animal food practices. As Neuman (2003) suggests, the researcher immerses herself "fully in a range of data while being alert to new insights thought the process of gathering data" during qualitative research (p. 33).

In order to answer the research questions, systematic data collection and examination of data patterns are significant. Bryman (2012) states that qualitative research stresses words rather than numbers for the purposes of data collection (p. 380). Even though qualitative data collection sometimes relies on the researcher's "unsystematic views about what is significant and important" (Neuman 2003, p.165), using only quantitative data may also cause "potential loss in richness of meaning" (Babbie 2014, p.23). While a mixed method approach can be used for some case studies (Yin 2014), this also adds complexity to the research and is more time-consuming (Bryman 2012). Due to

the time limitation in producing this dissertation, the data is gathered only from semi-structured interviews.

To minimise the potential disadvantages of qualitative data, which can sometimes be just “purely verbal description” (Babbie 2014, p.24), and examine data patterns, semi-structured interviews have been designed according to Shove and her colleagues’ element-based approach.

3.3. Case Study Approach

The case study approach involves the intensive investigation and analysis of a single case. Since the case study approach enables the researcher to focus on many details, it has become widespread in social research, particularly with small-scale research (Denscombe 2007). Most case study research is qualitative, because qualitative methods are “particularly helpful in the generation of an intensive, detailed examination of a case” (Bryman 2012, p.67). However, the use of case study approach is also compatible with quantitative or mixed methods (Denscombe 2007, p.55). According to Bryman (2012), if the research strategy is qualitative, there is a tendency to take an inductive approach to the relationship between theory and research (p. 69). Generalisability of a case study research is one of the main issues in qualitative research. It is important to bear in mind that a single case study need not represent general trends and universal truths. However, according to Bryman (2012), it is also possible for small-scale case studies to “yield findings that can be applied more generally to other cases” (p. 69).

An understanding of Istanbul environmentalists’ animal food practices might help explain how policy makers can cope with unsustainable food consumption. As Denscombe (2007, p. 53) remarks, case studies characteristically produce more detailed and varied data than quantitative research:

What a case study can do that a survey normally cannot is to study things in detail. When a researcher takes the strategic decision to devote all his or her efforts to researching just one instance, there is obviously far greater opportunity to delve into things in more detail and discover things that might not have become apparent through more superficial research.

However, focusing on many details and examining the patterns of data can make extreme demands of the researcher's time.

Current literature shows that the case study approach is suitable for animal foods consumption studies (see Cole et al. 2009; Latvana et al. 2011; Halkier et al. 2011; Laestadius et al. 2012). For example, Halkier et al (2011) investigate how to apply practice theory to the study of consumption in their article *Applying Practice Theory to the Study of Consumption: Theoretical and Methodological Considerations*. Halkier et al (2011) discuss three different pieces of qualitative research which employ the case study approach. Each consumption study is an example of the application of practice theory to a different field: cultural consumption, cooking techniques and energy consumption.

The rationale for the selection of the case study is based on the following considerations:

- (i) Consumption of meat, particularly poultry, is increasing in Turkey;
- (ii) Consciousness of global warming might have an impact on people's animal food practices;
- (iii) Both major national and international non-governmental organizations are located in Istanbul;
- (iv) Since the 1990s, environmental organizations have been raising awareness of climate change in Turkey, but there is still little emphasis on the impact of animal foods consumption on global warming; and
- (v) Since environmental organisations tend to endorse sustainable consumption practices, a person's being a member or an employee of an environmental NGO is likely to have an impact on his/her food choices, particularly with respect to animal foods.

3.3.1. Introduction to the Case Study Area

Turkey, as a developing country, has experienced a variety of environmental problems as a result of modernisation, including pollution, rapid urbanisation and rapid population growth. According to the Turkish Statistical Institute

(TurkStat), Turkey had a population of 75 million people in 2015, and this is expected to grow to 93 million people by 2050. Istanbul has the largest population of any city in Turkey, with almost 14 million people. The population of Istanbul is expected to reach 16.6 million by 2023 (Turkish Statistical Institute 2013). Rapid population growth, a fast-growing economy, expanding industry and lack of emissions control regulations are the main causes of increased GHG emissions in Turkey. Turkey's overall total GHG emissions as CO₂ equivalent⁶ for the year 2013 were 459.1 million tonnes and 10.8 per cent of national GHG emissions originated from agricultural activities. Turkey's total GHG emissions in 2013 were 110.4 per cent greater than in 1990. Despite this rapid increase of GHG emissions, there is no strong political will to deal with GHG emissions from animal foods consumption, either from government institutions or environmental organisations. Although Turkey is located in the Mediterranean basin, it is highly vulnerable to the impacts of climate change and, because of its high annual population growth, it does not have any quantitative commitment to the reduction of its GHG emissions (IPCC 2007). Since the 1990s, both national and international environmental organisations have been raising awareness of climate change and stimulating sustainable food consumption, but there is almost no emphasis on animal foods consumption and its effects on the environment in Turkey.

Istanbul has been selected as the case study field where the relationship between animal foods consumption and global warming will be explored.

3.3.2. Industrial Animal Agriculture Farming in Turkey

Livestock breeding is one of the biggest greenhouse gas emitters. 18 per cent of the global GHG emissions arise from animal agriculture and 8 per cent comes from poultry farming (Steinfeld et al. 2006; Şık 2016). There has been an increase in international recognition of the unsustainability of current

⁶ The term of CO₂ equivalent is to express the impact of each different GHG in terms of the amount of CO₂ that would create the same amount of warming. That way, a carbon footprint consisting of lots of different GHG can be expressed as a single number.

industrialised animal farming practices (Alvarez-Kalverkamp et al. 2014), particularly in the poultry industry (Şık 2016).

The developed world is the biggest consumer of meat (Steinfeld et al. 2006; Garnet 2007; Garnet 2009). However, meat consumption is stagnating in the developed world but increasing in the developing world, particularly in China and India (Alvarez-Kalverkamp et al. 2014). It is expected that meat consumption in the developing world will increase significantly in the very near future. According to the report *Meat Atlas – Facts And Figures About The Animals We Eat*, published by the Heinrich Böll Foundation in 2014, “the booming economies in Asia and elsewhere will see around 80 per cent of the growth in the meat sector by 2022” (p.10). Turkey, as a developing country with a rapidly growing economy, is also facing the same problem: a dramatic increase in the number of livestock.

According to FAO (2015), a comparison of livestock breeding figures between the years 1970 and 2012 shows an increase of 37 per cent for cattle, 50 per cent for sheep, 77 per cent for pigs and 361 per cent for poultry. In parallel with global figures, in Turkey the highest increase in livestock breeding figures is observed in the poultry sector.

Table 3: Number of Chickens Slaughtered in One Year (in Turkey)

Year	1995	2000	2005	2010	2015
Number	215,280,442	413,962,500	538,900,235	843,897,793	1,118,719,413

Source: TurkStat 2015

In Turkey, one billion chickens are slaughtered in each year. Chicken meat consumption increased 5 times in the 20 years between 1995 and 2015.

The poultry industry in Turkey has the record of being the fastest growing among animal food industries since 1991 and, with respect to white meat and eggs production, is among the top 10 producers in the world (Şık 2016). In light of its poultry industry and fast population growth, Turkey has been selected as a suitable candidate for a case study on the subject of exploring awareness on the impact of animal foods consumption on global warming.

3.3.3. Environmentalists as a Target Group

The term ‘environmentalists’ will be used to refer to people who are currently working for national or international non-governmental environmental organisations in Istanbul. This dissertation focuses on environmentalists who live alone or with a partner because living alone or with a partner enables people to determine their own food consumption habits and patterns independently of their core families. The main reason for choosing this subset is that environmental consciousness has grown extensively since 2000 (Şahin 2014) via environmental organisations in Turkey. It is assumed that there is less awareness of the link between animal foods consumption and environmental problems among the general public. Since environmental organisations tend to promote sustainable consumption practices such as recycling and consuming local/natural/organic foods, a person’s being an environmentalist is likely to have an impact on his/her food choices, particularly in animal foods.

3.3.4. The Rationale for the Selection of Environmental NGOs in Istanbul

Environmental NGOs in Turkey participate in policy processes, but they are not always effective (Paker et al. 2013). According to Paker et al., Greenpeace Mediterranean, the Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats (TEMA), and the World Wildlife Fund-Turkey (WWF Turkey) are the most “important environmental [NGOs] in Turkey in terms of size, area of impact, visibility, national coverage, access to international networks, and funding” (2013, p.764). Interviewees were selected from these environmental NGOs and two others: the Buğday⁷ Association for Supporting Ecological Living and the Green Thought Association (Yeşil Düşünce Derneği). The reason for adding those two environmental NGOs is that climate change, organic food and ecology are their priority working areas. Moreover, the Buğday Association is hosting the first ‘100% ecological market’ in Istanbul since 2006. In other words, the Buğday Association is promoting promoted organic products for the first time in Turkey. Table 5 shows the main features of selected environmental NGOs.

⁷ Buğday is the Turkish word for ‘wheat’.

Table 4: Features of the Selected Environmental Organisations

Name of the Environmental NGOs	Year founded/location of Offices	Priority Areas
TEMA (Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats)	1992/Istanbul and 77 provincial representatives	Erosion, rural development, forests, climate change
Greenpeace Mediterranean	1995/Istanbul	Climate change and energy, conservation of the Mediterranean, a future without nuclear energy
World Wide Found Turkey	2001/Istanbul and Ankara (the capital of Turkey)	Nature conservation, biodiversity, climate change
Buğday Association for Supporting Ecological Living	1990 (as an initiative) Since 2002 as an association/Istanbul	Ecology, Sustainability, Organic Agriculture, Rural Life, Climate Change
Green Thought Association	2008/Istanbul	Ecology and sustainability, democracy and media, climate change and energy, economy

Source: Adopted from Paker et al. 2013; illustrated by author

3.4. Research Method and Data Collection

3.4.1. Semi-Structured Interviews

The dissertation employed semi-structured interviews. The interview questions were designed with reference to the research aim and in accordance with the principle theme of the literature review. Semi-structured interviews would enable the researcher to gain in-depth knowledge about the research topic. As Bryman (2012, p. 471) remarks, one of the advantages of conducting semi-structured interview is that using a “similar wording ... from interviewee to interviewee” ensures a pattern of repetition among data.

Seven semi-structured interviews were conducted and each interview required approximately one hour of the participant’s time. The interview schedule (Appendix A) had four main sections. The first contained precise and detailed questions intended to determine the interviewee’s animal foods consumption

patterns. Each of the other sections contained four or five open-ended questions intended to provide richer and more detailed information about the link between participants' consciousness of global warming and their animal food practices. Table 7 shows the list of interviewees.

Table 5: List of Interviewees

Interview Number	Respondent Code	Age-Gender	Organisation Name	Position
1	P1 - Conscious and Responsible Omnivore	44 Female	WWF Turkey	Project Executive
2	P2 - Confused Pescetarian	28 Female	Green Thought Association	Projects Director
3	P3 - Ordinary Omnivore	28 Female	TEMA	Project Coordinator
4	P4 - Ethical Omnivore	44 Female	Greenpeace-Mediterranean	Campaign Manager
5	P5 - Organic Vegan	28 Female	TEMA	Project Coordinator
6	P6 - Conscious Organic Pescetarian	28 Male	Buğday Association for Supporting Ecological Living	Board Member
7	P7 - Convenience Omnivore	25 Female	WWF Turkey	Communications Officer

Interviewees were asked to explain in detail their animal food practices; whether they preferred organic and natural foods; whether they tended to do their food shopping in different places; which types of food they considered to have an impact on the environment; whether they thought that consuming less animal foods for environmental reasons should be a priority for an environmentalist; which types of food they ate at home; whether they tended to cook animal foods for their guests at home; whether they tended to consume animal foods while they were eating at restaurants; whether there had been any changes in their food preferences since they started to work for environmental NGOs; whether they considered food-miles important; and whether they believed environmental NGOs were responsible for providing information about the potential impacts of animal foods consumption on global warming.

Five interviews were conducted face-to-face, while two interviews were conducted by email because of participants' lack of time to arrange meetings. According to Denscombe (2007), face-to-face interviews enable the researcher to interact with the interviewee in order to gain in-depth knowledge. Each face-to-face interview took approximately one hour.

3.4.2. Data Analysis

Data was collected taking digital audio recording and supported written notes when audio recorded was not convenient. For example, the interview with participant 5 took place at a café, where loud music made it impossible to make a clear digital audio recording. In order to keep participants anonymous, interviews were recorded and transcribed, after which the files were kept confidential. According to Radboud University ethical rules, the raw data (audio recordings and complete transcriptions) will be submitted on a CD. Thus, data will be accessible by the researcher and RU. All interviews were conducted in Turkish. Since transcription and translation were arduous and time-consuming tasks, only the necessary parts were subsequently translated into English.

Open-ended questions gave interviewees the chance to talk freely about their animal food practices. Thematic analysis was carried out. Thus, the interviewees were coded according to their animal food practices. The empirical results will be discussed in relation to three themes: animal foods, environmental and environmental organisation in Chapter Four.

3.5. Ethical Considerations

Descombe 2007 argues that three main aspects of every research strategy need to be considered: being suitable, being feasible and being ethical. Ethical issues are mostly raised by extreme cases. As Neuman (2003, p. 125) remarked:

Ethical issues are more significant for controversial topics or areas that might violate a person's privacy or involve illegal behaviour than for "safe topics".

This dissertation does not investigate a sensitive topic; however, it is important to discuss ethical considerations. According to Bryman (2012) all studies should consider the following key ethical principles:

- To protect research participant from harm and deception (e.g. data will be treated as confidential);
- To make participant understand the nature of the research and their involvement (e.g. informed consent); and
- To ensure individual anonymity.

It is important to bear in mind that the researcher has responsibilities to both academic institutions (Radboud University and Cardiff University) and the research participants. Denscombe (2007, p.7) states that no one should suffer harm as a result of participating in the research. To avoid any harm to the participants, each was asked to read and sign a consent form (Appendix B) before the interviews started. In The consent form clearly explained the purpose of the research, how much time the interview was expected to take, how much data would be shared with supervisors, that the interview would be totally anonymous, though recorded, that participants were free to ask any question at any time and that they could withdraw from the study at any time without giving a reason.⁸ No research participants were asked misleading questions. A consent form was signed by all interviewees and no one withdrew from the study.

May (2011, p.54) argues that “within the data collection process itself, there are [also] a number of ethical decisions to be made” and most of those rely on the individual values of the researcher. In this dissertation all participants were recruited through personal contacts. Interviewees were sent an email containing a brief description of the purpose and procedure of the research, including the expected duration of the interview, before the meetings. However, participants were not given detailed information about the research aim in order

⁸ Participants were encouraged to ask questions and answers were openly given regarding the researcher’s interest in the research topic and the program of study. Several participants asked the researcher whether or not she was a vegan.

to avoid any risk of influencing the data. The participants were treated politely and sensitively. Participants were made aware that their participation in the study was entirely voluntary. Indeed, all participants were keen to take a part in the study and expressed an interest in the topic. The only practical problems encountered were difficulties in finding suitable convenient times to schedule interviews.

Finally, personal concerns about animal welfare and the environment might impair the researcher's objective view whilst conducting the interviews. However, to maintain as much neutrality as possible, the researcher avoided voicing her opinions on any of these matters during the semi-structured interviews.

CHAPTER FOUR: FINDINGS AND DISCUSSION

“While governments in the developed world have to radically change course and struggle against the power of the agricultural lobby, developing countries can avoid repeating the mistakes made elsewhere. If they know about the effects of intensive meat production, they can plan for a future-oriented form of production that is socially, ethically and environmentally responsible.”

Meat Atlas (2014)

Chapter Four discusses and analyses the empirical data in order to answer the research question. Data is analysed under four different headings for each participant. Each section starts with a brief description of participants as ‘carriers’ of practice, then considers them in terms of their relations to animal foods and environmental concerns. The focus then moves to the role of environmental NGOs in raising awareness of the impact of animal foods consumption on global warming. Each section concludes with an analysis of participants’ animal food practices based on Shove and her colleagues’ element-based approach.

Table 6: Profiles of Interviewees and Animal Food Practices

Responded Code	Participant as a Carrier of Practice	Elements of Animal Food Practices		
		Materials	Competences	Meanings
P1	Conscious and Responsible Omnivore	<ul style="list-style-type: none"> - Red meat - Seafood - Eggs - Yoghurt - Cheese - Kitchen utensils and gadgets - Organic markets - Natural markets 	<ul style="list-style-type: none"> - She knows how to cook - She shops online due to lack of time - She purchases from local shops that sell organic/natural animal foods 	<ul style="list-style-type: none"> - Nutritional value of animal foods - The idea of protecting the environment - The idea that preparing plant-based meals takes more time-consuming than preparing animal-based meals
P2	Confused Pescetarian	<ul style="list-style-type: none"> - Seafood - Eggs - Yoghurt - Cheese - Kitchen utensils and gadgets 	<ul style="list-style-type: none"> - She knows how to cook - She purchases from local shops - She uses a technique to store foods; for example, she knows a special technique to enable her to store home-made cheese more than six months 	<ul style="list-style-type: none"> - Nutritional value of animal foods - The idea of protecting the environment - The idea of sociability

Responded Code	Participant as a Carrier of Practice	Elements of Animal Food Practices		
		Materials	Competences	Meanings
P3	Ordinary Omnivore	<ul style="list-style-type: none"> - Red meat - Seafood - Eggs - Cheese - Yoghurt - Milk - Kitchen utensils and gadgets 	<ul style="list-style-type: none"> - She knows how to cook - She purchases from local shops 	<ul style="list-style-type: none"> - Concerns about animal welfare - The idea that preparing plant-based meals takes more time-consuming than preparing animal-based meals - The taste of animal foods - The idea of humanity as an indispensable part of nature.
P4	Ethical Omnivore	<ul style="list-style-type: none"> - Red meat - Seafood - Eggs - Cheese - Milk - Yoghurt - Kitchen utensils and gadgets - Organic markets 	<ul style="list-style-type: none"> - She knows how to cook - She purchases from local shops 	<ul style="list-style-type: none"> - Concerns about animal welfare - The idea that preparing plant-based meals takes more time-consuming than preparing animal-based meals - The taste of animal foods - The idea of disconnection from nature
P5	Organic Vegan	<ul style="list-style-type: none"> - Kitchen utensils and gadgets - Organic markets - Natural markets 	<ul style="list-style-type: none"> - She knows how to cook - She purchases from organic/natural local shops. - She is able to plan her diet 	<ul style="list-style-type: none"> - The idea of equal standing to all species - Concerns about animal welfare - The idea of protecting the environment - The idea of sociability
P6	Conscious Organic Pescetarian	<ul style="list-style-type: none"> - Seafood - Eggs - Cheese - Yoghurt - Kitchen utensils and gadgets - Organic markets - Natural markets 	<ul style="list-style-type: none"> - He knows how to cook - He purchases from organic markets - He is able to plan his diet 	<ul style="list-style-type: none"> - Nutritional value of animal foods - Concerns about animal welfare - The idea of protecting the environment - The idea of sociability - The taste of animal foods
P7	Convenience Omnivore	<ul style="list-style-type: none"> - Red meat - Seafood - Eggs - Cheese - Kitchen utensils and gadgets - Organic markets 	<ul style="list-style-type: none"> - She knows how to cook - She purchases from organic markets 	<ul style="list-style-type: none"> - Nutritional value of animal foods - Concerns about animal welfare - The idea of protecting the environment

4.1. Conscious and Responsible Omnivore

P1 is a forty-four-year-old woman who lives with her spouse. She has worked as a project executive for WWF Turkey⁹ since 1997. P1 says that she did not specifically choose to work for an environmental NGO before starting her career, but, since she started, her environmental consciousness has emerged and gradually increased. According to P1, after she started to identify herself as an environmentalist, her life style and consumption patterns have completely changed, from her nutrition preferences and cleaning habits to her cleaning products preferences and her favourite cosmetics. P1 says that consuming less than before was the single biggest change in her life after becoming an environmentalist. More generally, P1 thinks that consumption is the most pressing environmental problem of our world alongside climate change.

1a. Animal Foods

P1 has tried to exercise vegan and vegetarian diets in the past, but could not properly sustain them due to a lack of time and a resultant irregular eating pattern, which led to health problems. For that reason, she resumed animal foods consumption, but still avoids chicken meat and milk. P1 eats red meat once a month and consumes eggs, yoghurt and cheese daily. P1 used to go to big supermarkets for food shopping, but in the last two months she has begun to place weekly orders for her food online from a local farm near Istanbul. P1 cares to a high extent about the food-miles and origins of the products she buys. In cases where P1 cannot find the exact product she prefers online, she buys substitutes from local shops that sell organic/natural products. When she buys from local shops, P1's priorities are the freshness and price of the product. P1 never buys packaged products such as cola or chocolate and never cooks red meat except when hosting guests at home. The reason for P1's preference for consuming only organic/natural products is the responsibility she feels for the environment and her health. P1 spends 10 per cent of her income on food

⁹ Between 1996 and 2001, WWF Turkey operated under the name "Dođal Hayatı Koruma Vakfı" ("Wildlife Conservation Foundation").

and says that even if one day she earns less; she will give up other things to keep consuming organic/natural food products.

1b. Environment

Behind P1's failed attempt to exercise a vegan diet in the past and her willingness to achieve that one day in the near future is her perception of the harm done to the environment by the animal foods production industry. According to P1, who, unlike other participants, did not mention animal welfare, the energy and agriculture sectors are doing the most harm to the environment. In line with this view, she tries not to support industrial agriculture through her shopping preferences and tries to make her purchases from small local producers. P1 is very well aware of the impact of the animal foods on global warming and, because of this, she makes her animal food choices consciously. She thinks, however, that reducing overall consumption and/or consuming organic animal foods are not really priorities among environmentalists and, in contrast to her, many of her environmentalist friends prefer meat-weighted diets merely to comply with trends (new generation steakhouses, for example). She believes that behind the increase in meat consumption in Turkey is the belief that a diet including meat is healthier than one without it. The other reason is that the main obstacle people face when they consider a reduced diet or one with more conscious meat consumption is their lack of time to prepare proper plant-based meals due to very busy working hours.

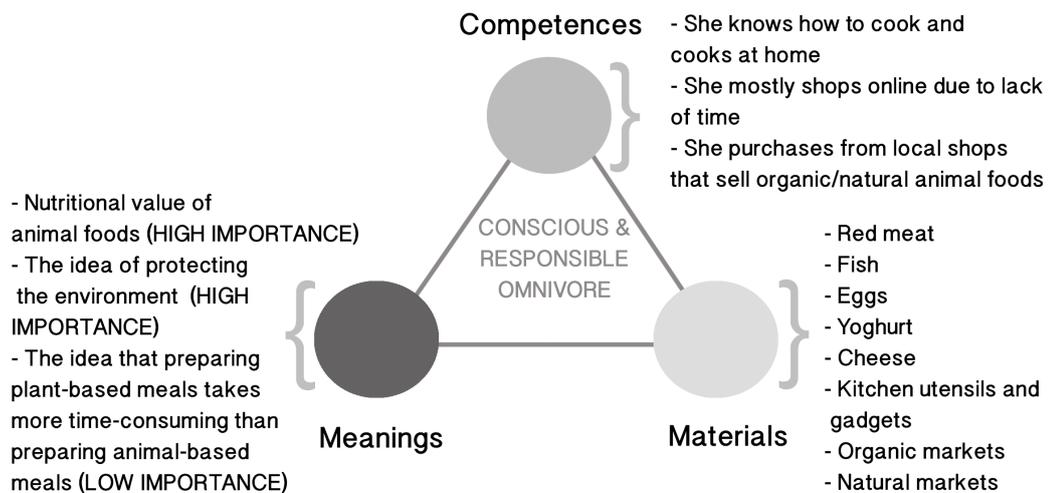
1c. Environmental Organisation

According to P1, animal agriculture harms the environment at least as much as the energy industry, but environmental NGOs today are not paying the necessary attention to this subject. She believes, however, that this lack of interest is bound to change and the detriments of animal agriculture will become a prominent topic for environmental NGOs in the near future. P1 says that WWF Turkey informs people about food supply chain. For example, in its "Green Generation Restaurant" program, it delivers talks to restaurant owners and others in the food industry about sustainable food supplies.

1d. Animal Food Practices

P1 was named a “conscious and responsible omnivore” on the basis of her animal food practices. She is aware of the impact of animal foods consumption on global warming and this has prompted her to consume fewer meat and dairy products for environmental reasons. Figure 3 shows the animal food practices of P1.

Figure 3: Animal Food Practices of P1 - Conscious and Responsible Omnivore



Source: Adopted from Shove et al. 2012; illustrated by the author

4.2. Confused Pescetarian

P2 is twenty-eight years old and lives with her partner. She has worked for the Green Thought Association for one-and-a-half years. P2’s preference for working in an environmental NGO is a conscious one. She used to work for a corporate organisation, whose requirements and routines eventually caused her to question her life style. Soon after she quit the job, she promised herself that she would consume less and started working for the Green Thought Association in order continually to defend the values she cares about. P2 believes that unconscious consumption is the most pressing environmental problem of our time.

2a. Animal Foods

For a short period of time P2 tried to exercise both vegan and vegetarian diets, but she experienced health problems (iron deficiency) and resumed animal

foods consumption as a result. She thinks the reason behind her health problems was her lack of attention to the nutritional balance of the vegan and vegetarian diets she followed. For P2, the biggest challenge of veganism is to decide what to eat next. In that respect, she describes the period of time when she was vegan as one of the most difficult periods in her life, when this extra decision had to be made at least three times a day, combined with her busy work schedule and lack of time in general. P2 is inclined to consume meat products from producers she knows. P2 does not consume chicken or milk; she consumes eggs, yoghurt and cheese; and she eats fish once a week. She cooks at home and at the office and rarely eats out. P2's family is involved in agriculture and sends her a package full of cheese, eggs, vegetables, pulses and fruits on a weekly basis. When she requires additional food, she buys from local shops. P2 is unconvinced that products labelled as "organic/natural" in Turkey are really organic or natural, so she refrains from purchasing them. She also thinks their prices are very high. P2 spends 20 per cent of her income on food. She cares about the food-miles of the products she buys; for instance, she purchases exotic fruits (pineapples, mangos, passion fruits, etc.) only once a year.

2b. Environmental

The reason behind P2's decision to exercise vegan and vegetarian diets in the past was the responsibility she felt for the environment. As a result of her curiosity about where the food on her plate came from, P2 began to research the topic of animal foods and in 2012 came across the book *Meat Atlas*, published by the Heinrich Böll Foundation. After reading the book, she decided to remove animal foods from her diet. However, she has consciously avoided gaining information about animal welfare. She thinks that if she learns the process that farm animals go through, she will be unable to consume animal products, but at the same time she believes that her body needs animal foods. In addition, she believes that consuming less meat should be a priority for environmentalists:

I can observe that people around me [who work for environmental NGOs] gradually resume consuming meat. Meat consumption is

particularly widespread among parents. I link this situation to their inability to internalise vegetarianism. People become vegetarians because they would like to change their life styles with the aim of contributing to the preservation of the environment (or harming it less), but since most of the time they cannot internalise vegetarianism, they give it up at the first opportunity. For example, many women use their desire to get pregnant as an excuse [to resume eating meat].

P2 does not own a car; she uses public transport and recycles both at work and at home.

2c. Environmental Organisation

P2 thinks that people need to consume less and with greater consideration for the environment in order to overcome environmental problems. According to P2, in order for people to become more conscious of their consumption habits, NGOs and state institutions alike should step in. For instance, on the one hand, the state can support sustainable animal agriculture by introducing subsidies and/or tax reliefs, limiting meat imports and imposing restrictions on animal farming to enhance animal welfare; and on the other hand NGOs can organise events to raise awareness of the harm done to the environment by unconscious consumption. P2 states that the Green Thought Association is well aware of the harm done to the environment by animal foods consumption, but is reluctant to make it part of their agenda because of differences in opinion between its members.

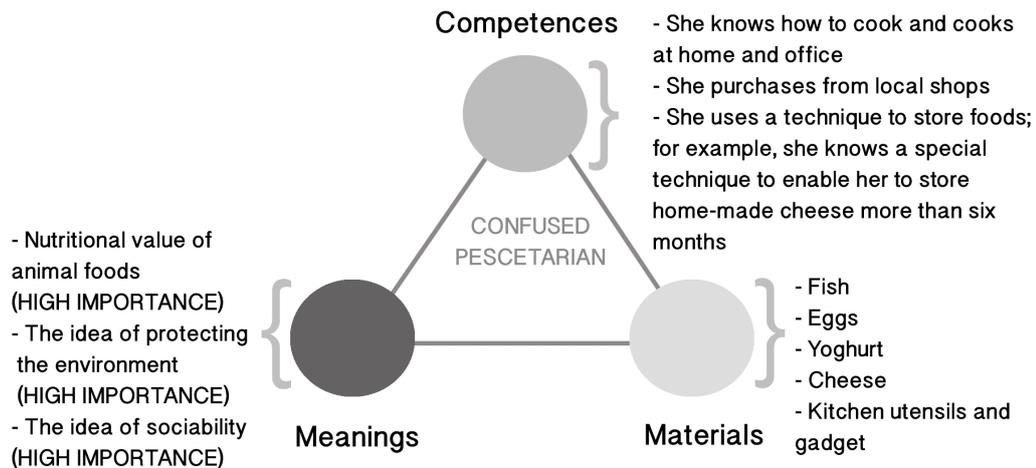
At the Green Thought Association, we offer vegan menu in all our events. However, there are a lot of omnivore people in the ecological community! Until the time I started working for Green Thought Association, I thought everyone in this community was vegetarian. According to my observations, vegetarianism is more prevalent among volunteering environmentalists compared to professional environmentalists, who consume animal foods knowing the harmful effects they have on the environment. For instance, I am the only one in our office who does not consume red meat. Also, nobody in the office I know eats chicken; but that is because they think chicken is unhealthy, not because of the harm done to the environment by the chicken industry!

P1 – Confused Pescetarian

2d. Animal Food Practices

P2 was named a “confused pescetarian” because she is considering whether or not to consume meat in the near future. She is aware of the impact of animal foods consumption on global warming and for that reason she has become a pescetarian and consumes fewer dairy products. Figure 4 shows the animal food practices of P2.

Figure 4: Animal Food Practices of P2 - Confused Pescetarian



Source: Adopted from Shove et al. 2012; illustrated by the author

4.3. Ordinary Omnivore

P3 is twenty-eight years old and lives with her flatmate. For the past three years she has worked as a project coordinator for TEMA (the Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats), where she started as a volunteer. P3 thinks that the destructiveness of humankind is the biggest environmental problem of our time. She is confident that she became a much more conscious consumer after she started working for an environmental NGO.

3a. Animal Foods

P3 sees humanity as an indispensable part of nature. In that respect, since animals eat other animals in nature, she does not see a problem with human diets that include animal foods. P3 has never been a vegan or vegetarian in her life; she only tried a raw-food-only diet for a short while. P3 does not regularly

go food shopping and cooks at home once or twice a week. When she does, she shops from local shops in her neighbourhood. P3 does not purchase organic or natural food because she does not think that products labelled as “organic/natural” in Turkey are really organic or natural. She eats meat and/or fish at least 5–6 times a week and thinks that her fondness for meat has its roots in the dietary habits she gained during childhood. When she cooks at home, she always prefers a vegetarian meal. P3 thinks that concerns about animal welfare provide the main motivation behind people’s decisions to consume less animal foods or switch to veganism. She consumes red meat, seafood, eggs, cheese, yogurt and milk but she doesn’t eat chicken meat. While P3 is aware of the fact that nutritive value received by consuming animal product can be substituted by plant-based products, she says she finds it easier to cook animal- rather than plant-based food.

I admire people following a vegan diet and I respect them. I could never follow a vegan diet and spend my whole day thinking about what to eat next. It is also difficult not to consume meat in Turkish society in all respects.

P2 - Ordinary Omnivore

She spends 30 per cent of her income on food and if she makes more money in the future, she would like to consume mainly natural food purchased from local farms.

3b. Environment

P3 has the lowest level of environmental consciousness among all the participants in this study. She is aware of the harmful effects of industrial agriculture on the environment, but is not knowledgeable about the effects of animal agriculture industry on the environment. P3 did not express any concern about or awareness of the role of animal farming in climate change. She does not mind the carbon footprint of her food and therefore does not care about where the animal foods come from. She does not own car since she believes that the oil industry is the most environmentally hostile industry; instead she uses public transport. P3 recycles at work, but does not recycle at home.

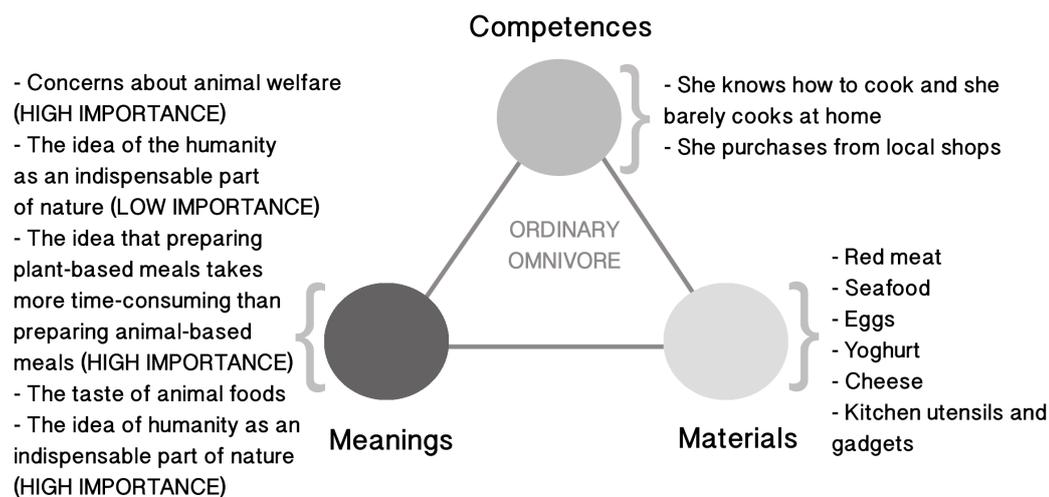
3c. Environmental Organisation

P3 does not think that the institution she works for has the duty to develop public awareness of the impact of animal foods consumption on global warming. She justifies this view by saying this subject does not fall within the field of interest of the institution and therefore it cannot justify expending its budget or human resources on it.

3d. Animal Food Practice

P3 was named an “ordinary omnivore” because she is not aware of the impact of animal food consumption on global warming and because she consumes a large quantity of animal foods (5–6 times a week). Figure 5 shows the animal food practices of P3.

Figure 5: Animal Food Practices of P3 - Ordinary Omnivore



Source: Adopted from Shove et al. 2012; illustrated by the author

4.4. Ethical Omnivore

P4 is a forty-five-year-old single person who lives alone. After working twenty years as a professional, she decided to work for an environmental NGO as a result of her personal concerns about where the foods come from and her interest in genetically modified organisms. For the last three years she has worked for Greenpeace Mediterranean as a campaign manager. According to P4, climate change is the most substantial environmental problem of our time.

4a. Animal Foods

I honestly feel bad after hearing your questions. To be precise, I feel like a child who is self-consciously naughty.

P4 - Ethical Omnivore

P4 consumes animal foods, but not chicken. She stresses that the chicken industry is one of the industry most detrimental to both human health and animal welfare. P4 has considered becoming a vegetarian, but does not think that she can become a vegan because of her fondness for cheese. While P4 is aware of the fact that the nutritive value received by consuming animal product can be substituted by plant-based products, she says she likes the taste of animal foods and enjoys consuming them. She knows the origin of the animal foods she buys (eggs, yogurt and cheese) and never consumes non-organic eggs. Additionally, she prefers 'good agricultural practice' and 'fair trade' labelled brands when she shops for food. P4 has not cooked at home since she started working for Greenpeace Mediterranean and eats all her meals out except breakfast. She consumes red meat/fish once or twice a week, and eggs, yogurt and cheese every day. Whenever she hosts guests at home, she always prepares a vegetarian menu. P4 spends 15 per cent of her income on food. P4's motto for food consumptions is from Michael Pollan: "Don't eat anything your great-great-grandmother wouldn't recognise as food".

P4 is aware of the impact of animal farming on global warming and thinks the reason behind increased meat productions in Turkey (especially chicken meat) is population growth and rapid urbanisation:

We are so disconnected from nature; we do not even realise that the (red) meat on our plate was once a living lamb.

4b. Environment

P4 has the highest level of environmental consciousness among the participants. She does not own a car, buys her food from local shops within walking distance of her house and recycles both at home and at her workplace. She makes all her purchases, from her water to her clothes, after considering the impact of the product on the environment.

4c. Environmental Organisation

P4 states that she rarely cooks at home because she lacks time:

My life style has been negatively affected during the time I worked for Greenpeace because I could not cook at home, find time to shop and spare time for myself. Despite these negative outcomes due to long and exhausting working schedule, I personally accomplished a lot of positive and important things. Thinking back on the campaigns we won and their positive impacts on the environment, I tell myself "So what if I ate outside for two years? Not important at all!

In May 2016, almost one month after the interview with P4 was conducted, Greenpeace Mediterranean launched a campaign entitled 'O Tavuğu Yutmayız' ('We Won't Swallow that Chicken'), and published the report 'Dünyayı Tüketmek' ('Using Up the World'), which outlines the harms done by the chicken industry to human health and to the environment. However, P4 didn't mention the campaign during the interview: this omission is likely due to her ethical responsibilities to Greenpeace Mediterranean.

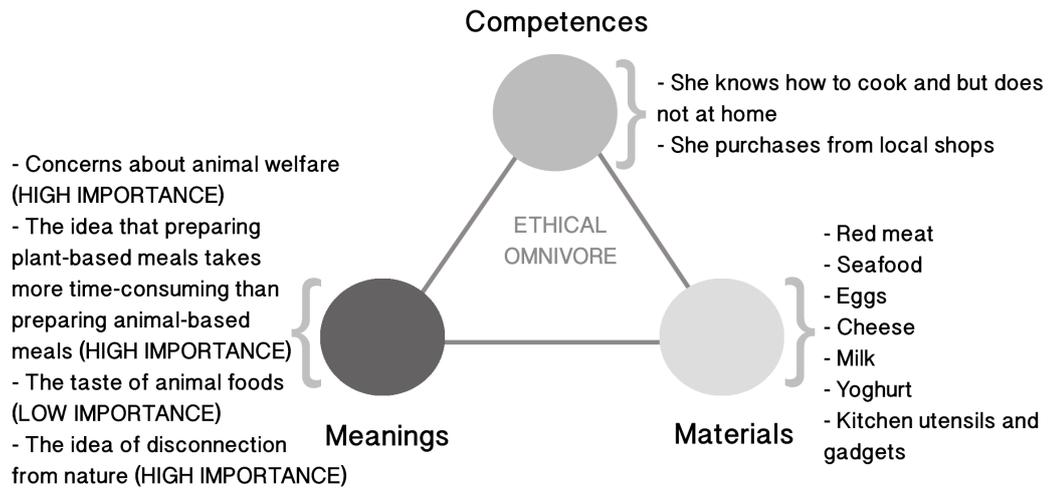
Greenpeace Mediterranean is the only NGO that emphasises the impact of animal foods consumption on global warming in Turkey. Greenpeace, through its campaign 'We Won't Swallow That Chicken', urges the chicken industry to change its production chain by 2020 in order to eliminate its unhealthy practices.

Although P4 did not mention the campaign when she asked a series of questions about the impact of animal foods consumption on global warming, she stated that this dissertation serves an important purpose, yet, according to her, other pressing environmental priorities, such as nuclear and hydroelectric power plants, deserve higher priority in Turkey.

4d. Animal Food Practices

P4 was named an "ethical omnivore" because of her tendency to buy only organic animal foods. She is well aware of the impact of animal food consumption on global warming. Figure 6 shows the animal food practices of P4.

Figure 6: Animal Food Practices P4 - Ethical Omnivore



Source: Adopted from Shove et al. 2012; illustrated by the author

4.5. Organic Vegan

P5 is twenty-eight years old and lives with her vegan spouse and her dog. Following two years on a vegetarian diet, she has taken up a vegan diet for the last two months. Her spouse was the main driver for P5 to make this decision. P5 has worked for several environmental NGOs since graduating from university and now works for TEMA (the Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats) as a project coordinator. She defines herself as an environmentally sensitive person and an animal rights defender. P5 thinks that global warming is the most pressing environmental problem of our world.

5a. Animal Foods

Under the influence of her vegan spouse, P5 does not buy animal foods. She used to consume dairy products once a week outside before switching to veganism. For P5, veganism represents the idea of the equal standing of all species. The main reasons behind her decisions first to switch to vegetarianism and then to veganism were her concerns about animal rights and animal welfare.

One of the biggest nuisances in P5's daily life is eating outside because of a very limited number of vegan restaurants in Istanbul, which in turn has a

negative effect on her and her spouse's social lives. Another nuisance for her is people's never-ending 'judging' questions concerning why she does not consume animal foods. She says she does not understand why her family does not accept her as a vegan. P5 spends 20 per cent of her income on food.

5b. Environment

Animal welfare was the primary motivation for P5's veganism. However, over time she also started thinking about the environmental consequences of animal foods consumption. Even though she had to face some health problems (iron deficiency) while she was a vegetarian, she never considered going back to an omnivorous diet. Instead of consuming animal foods, she took care of her diet, took supplements and had a check-up every year. She does not think animal foods are crucial for her diet. P5 says that, as a vegan, she feels healthier than before: "If you are vegan, you have to count whatever you eat!"

5c. Environmental Organisation

P5 thinks that widely recognised NGOs in Turkey such as TEMA should raise awareness of the harmful effects of animal foods on the environment, even if this subject does not fall within their primary working areas. She thinks many NGOs refrain from touching this subject because they fear a negative public reaction. She also added that working for an environmental NGO has not changed her life style at all:

I chose this job because I care about the environment, people and animals, not the other way around. Being vegan is a big step for me, as well as the world. I do not intend to reduce myself to a person in an immense universe and de-emphasise the decision I took. Change in one person can change a lot more people and things.

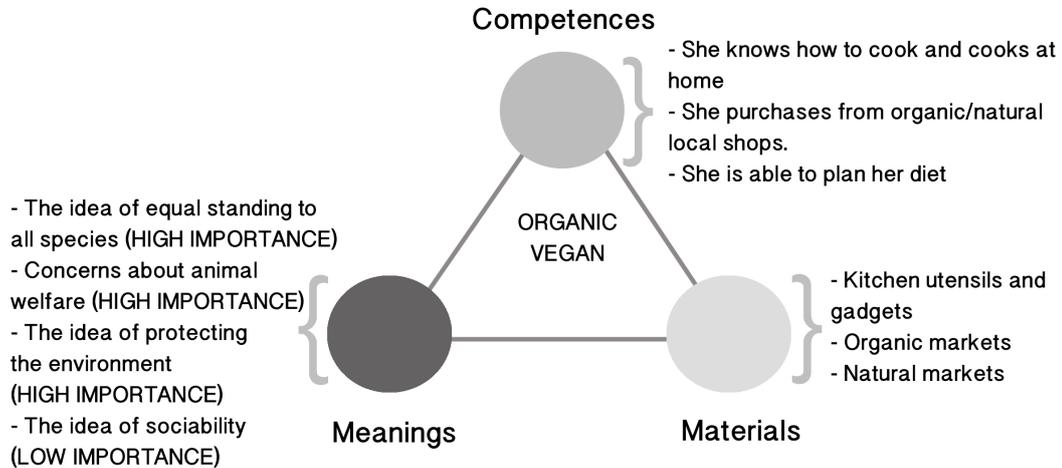
P5 – Organic Vegan

5d. Animal Food Practices

P5 was named an "organic vegan" because she only consumes organic foods and do not consume animal foods. She is very well aware of the link between animal foods consumption and global warming. She even mentioned a statistic concerning the impact of animal foods consumption on the environment: "I

know that animals consume more than half of the world's clean water!" Figure 7 shows the animal food practices of P5.

Figure 7: Animal Food Practices of P5 - Organic Vegan



Source: Adopted from Shove et al. 2012; illustrated by the author

4.6. Conscious Organic Pescetarian

P6 has been a board member of the Buğday Association for Supporting Ecological Living since 2010. He is twenty-nine years old and lives with his wife, who is also a pescetarian. P6's wife, too, is a member of Buğday Association and she joined P6 during the interview. Since they buy food together and their eating habits are almost the same, only P6's answers have been used in this thesis. P6 thinks that bio-diversity is the biggest environmental problem of our time.

6a. Animal Foods

P6 became pescetarian four years ago (in 2012). The reasons why he does not consume red meat are his concerns about animal welfare and the harms done to the environment by the production of animal foods. Like the rest of the participants, P6 does not consume chicken. He thinks the poultry industry tortures its livestock and considers chicken an unhealthy food due to GMO feedstocks and antibiotics fed to them. For the last four years, he has made his food purchases from the Buğday Association's own 'Buğday 100% Ecological Market'. While P6 prefers public transport and uses a bicycle for his daily

commute, he drives a car to the ecological market because it is more convenient for him and he does it only once a week to meet most of his needs. Apart from his weekly shopping from the ecological bazaar, he orders honey, olives and olive oil from producers he knows, and whose production methods he knows, every three months.

To be honest, I don't worry about food-miles. At the end of the day, all the products we purchase from a supermarket come from somewhere. For instance, a product can have a low carbon footprint because it is shipped in bulk, but one does not know its carbon footprint during the production phase. Therefore, for me, knowing the producer and the production method of a product is more important than its carbon footprint during transportation.

P6 - Conscious Organic Pescetarian

P6 does not buy anything non-organic except eggs and he does not consume packaged food. His willingness to contribute to the reduction of his total carbon footprint, his taste preferences and his belief that organic products are healthier than non-organic products are the reasons for P6's consumption of organic products. He explains:

I was a greed carnivore until I was 25. My wife once told me that I used to talk about doner meat in my sleep. I like the taste of meat very much and I used to eat it a lot. Even now I sometimes long for it, but I do not eat it because my priorities are different now.

P6 consumes yoghurt and eggs daily, as well as fish once a week. He does not think he can find a substitute for eggs. He sees fish as a health supplement he has to take. Additionally, because of health problems he has experienced in the past, such as iron deficiency, P6 considers animal foods an indispensable source of medical benefits.

I think the supply chain that brings the fish on my table harms the environment much less than that which brings other animal foods. Also, I do not see any problem with fishing in terms of animal welfare. I think I also subconsciously believe that I will not be adequately fed if I do not eat fish. I know this subject is currently being discussed a lot among vegans, but I have this perception in mind and I cannot change it. Also, [I remember] my mother's words from my childhood: 'If you do not eat meat, your brain will not work'. I think our consumption patterns are informed by our habits from the past and the meanings we attribute to certain foods.

P6 - Conscious Organic Pescetarian

P6 says that he does not feel the need to prepare special food for his visiting guests at home and that most of his friends are vegan/vegetarian/pescetarian like him. He adds that his family still has not got used to the fact that he is a pescetarian:

My family still did not accept that I do not eat meat. It was harder when I first became pescetarian; they used to insist that I eat meat. They now respect my decision at least and do not force me to eat meat. In return, I prefer eating fish when I eat with them and so we come to terms.

P6 tries to consume locally sourced products as much as he can and believes that consuming local products is more important following a vegan and/or vegetarian diet:

There is a quote I always keep in mind of Victor Ananis, the founder of the Buğday Association: 'If I were an Eskimo, I would not be a vegetarian.'

P6 spends 5 per cent of his income on food and says that even if one day he earns less, he would travel less, but would still keep on consuming organic products.

6b. Environment

P6 thinks that people defining themselves as environmentalists should be mindful of meat consumption as well among other things:

I do not think one can be sincere if one attends a meeting to discuss climate change and then goes to a kebab restaurant.

According to P6, with today's easy access to information, it is impossible for people (especially those working for an environmental organisation) not to be aware of the harmful effects of animal foods on the environment:

I do not think a person who watches, sees and reads about the process of bringing animal foods onto the table can ever consume meat.

Animal welfare is the most influential factor in P6's meat consumption decision, while its impact on the environment is the second. P6 thinks that the biggest obstacle to an effort to reduce meat consumption is the lack of options for non-

meat-based main courses when eating out in restaurants, school canteens and work place cafeterias, for example.

He recycles and composts. He owns a car, but uses it no more than once or twice per week.

6c. Environmental Organisation

According to P6, the increase in animal foods production in Turkey is supported through the government's current environmental policies and subsidies provided for animal foods production, with little effort being made to promote awareness of its effects. For this reason, he believes that environmental NGOs and consumers should play the key role in promoting this awareness.

In the Buğday Association, some members support organic agriculture, would like to raise their voices about harms done to environment by industrial agriculture and think that the association should take steps on subjects related to animal agriculture; and some other members think that decisions concerning animal foods consumption are personal, so any intervention in that area would intrude on people's personal preferences.

P6 - Conscious Organic Pescetarian

P6 stated that he is confident the Buğday Association is aware of the impact of animal foods consumption on global warming, but it chooses to stay silent on the subject and does not currently act upon it. He thinks the reason for this stagnation is the difference in opinions among the association members:

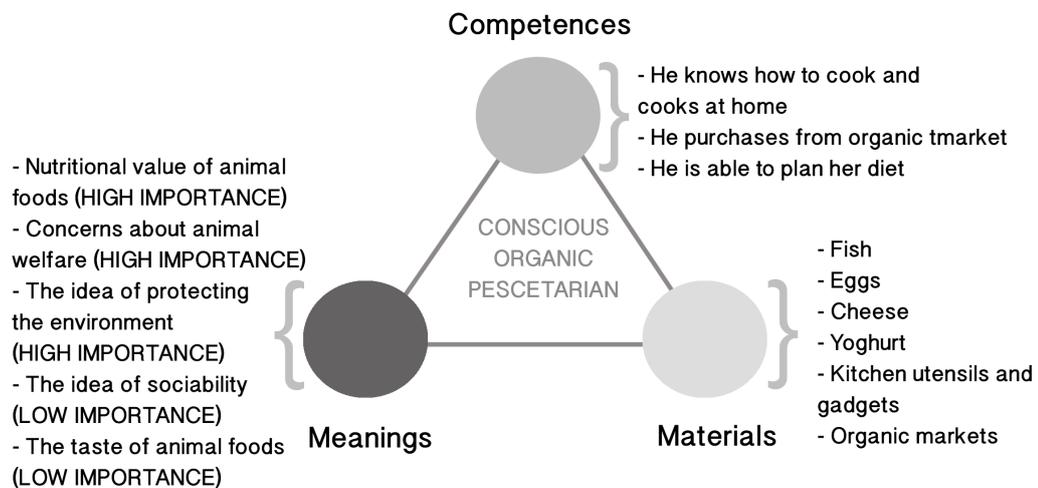
It is easy, for instance, to organise a campaign against a nuclear power plant, a coal mine or an industrial agriculture company because no association member owns entities similar to these. When it is said that to consume animal foods also harm the environment, however, they tend to perceive this statement as a violation of their way of life. What I mean is, it is not easy for people to distance themselves from meat because it is part of daily life. One other reason is the preconception for many people that animals exist for humans to eat, especially for Muslims.

P6 - Conscious Organic Pescetarian

6d. Animal Food Practices

P6 has been called a “conscious organic pescetarian” since he has the highest level of environmental consciousness among the interviewed participants. He is very aware of the impact of animal foods consumption on global warming. However, the reason for his preference for a pescetarian diet is his concern about animal welfare. His feelings of responsibility to the environment come after. Figure 8 shows animal food practices of P6.

Figure 8: Animal Food Practices of P6 - Conscious Organic Pescetarian



Source: Adopted from Shove et al. 2012; illustrated by the author

4.7. Convenience Omnivore

P7 is twenty-five years old and lives with her mother. Working for an environmental NGO was a conscious preference for P7, who has worked for a handful of NGOs since graduating from university. In line with her desire to work for an international NGO, she has worked for WWF Turkey for the last two years. P7 thinks that water scarcity is the most pressing environmental problem of our world.

7a. Animal Foods

P7 does food shopping for home jointly with her mother. While her mother prefers big supermarkets, P7 prefers local shops. She does not know the origin of the products she purchases and does not care about food-miles. P7 always buys organic food and thinks that non-organic products are unhealthy.

P7 eats cheese every day and eggs once a week. She does not consume milk, yoghurt or chicken. P7 eats red meat around four times a week and is thus the biggest consumer of red meat among the interviewed participants. The reason behind her meat consumption is the belief that her body requires meat. While P7 eats mostly at home, where her mother cooks, she eats out five or six times a week.

P7 did not want to disclose what proportion of her income is spent on food and stated that she would not give up consuming organic products even if one day she was to earn less than she does today.

P7 is partly aware of the harms done by animal foods industry to the environment. She thinks that there are certain obstacles that must be overcome in order to reduce the consumption of animal foods in Turkey;

Turkish society is a carnivorous one. I think veganism is too extreme for this society. In Turkey children are taught that meat will make them strong. At least that was the case in our home; we would always eat red meat and chicken. People's point of view (or mind-set) needs to change in order for this perception to change. If the President becomes a vegan, maybe then the society can change. There should be alternative food available for people who would like to consume less meat or who do not want to consume it at all. We work in Eminonu (one of the oldest and most traditional districts of Istanbul) and the only option we have as lunch other than meat is a salad. Meat is everywhere. Vegan cuisine is lacking; vegan food recipes are lacking. As a solution, there should be a focus on the ways restaurants could be persuaded to provide more vegan/vegetarian dishes as main courses.

P7 – Convenience Omnivore

P7's main motivations for consuming less meat are her desires to minimise her ecological footprint and to live by polluting the nature as little as possible.

7b. Environment

For P7, environmentalism means respecting nature and all life in nature. P7 says her environmental consciousness has increased in the time since she started working for an environmental NGO and that her life style has completely changed:

I continuously calculate in my mind how much I pollute nature and ask myself what I can do to decrease my ecological footprint. I do not consume plastics except when it is urgent. [The assumption is that the participant means that she does not purchase plastic products.]

P7 believes that daily food preferences of people have an impact on environment. Because of that, she personally tries to consume less or even not to consume certain products, such as plastics, at all.

It is generally said: 'These are not things that one person can change'; but when the demand increases, more animal foods enter the market, more animals gets slaughtered, more water gets consumed and agriculture changes dimension [from conventional agriculture to industry agriculture]. As a result, private companies influence environmental changes.

P7 – Convenience Omnivore

7c. Environmental Organisation

P7 thinks that environmental NGOs should place greater stress on the impact of animal foods consumption on global warming. She says that WWF Turkey is trying to raise awareness of this subject through its Yeşil Nesil Restoran (Green Generation Restaurant) program, but according to P7 this has not been effective.

The ideal thing would be starting a campaign to create awareness of this subject and stand behind it. Even though food is one of our important international campaign topics, we have taken no action so far. We shall wait and see. Apart from that, WWF Turkey used to publish reports on agriculture and water, but during the two years I have been working here there has been no campaign targeting the link between food and global warming.

P7 – Convenience Omnivore

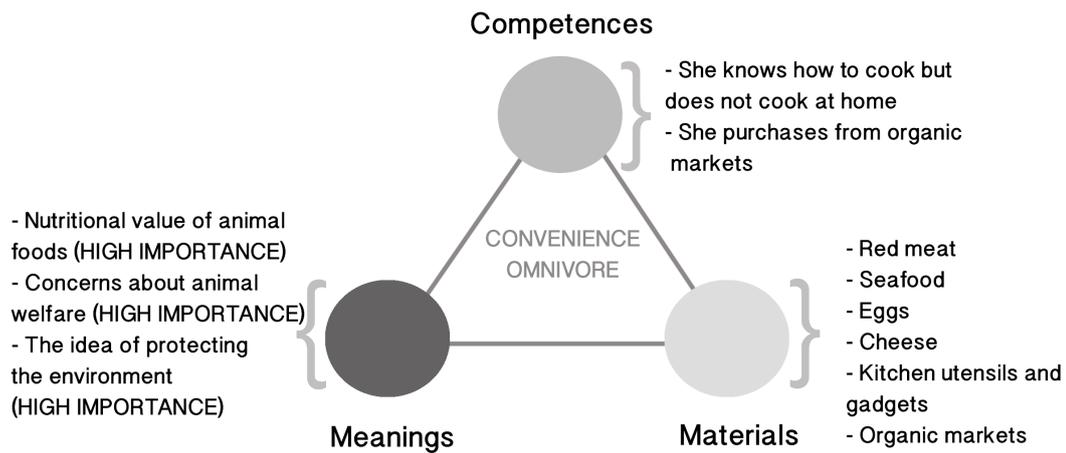
P7 says that "consuming less" is not really a priority among environmentalists, including herself:

At least, consuming less for environment is not a priority in our office (WWF Turkey).

7d. Animal Food Practices

P7 has been called a “convenience omnivore” because she is not aware of the impact of animal food consumption on global warming and she exhibits the highest level of animal foods consumption among all the participants. Figure 9 shows the animal food practices of P7.

Figure 9: Animal Food Practices of P7 - Convenience Omnivore



Source: Adopted from Shove et al. 2012; illustrated by the author

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

Section 5.1 offers analysis and a conclusion. 5.2 summarises the findings with relation to each individual research question. Section 5.3 reflects on the limitations of the study, whilst section 5.4 discusses the potential for future research to build on the findings of this study.

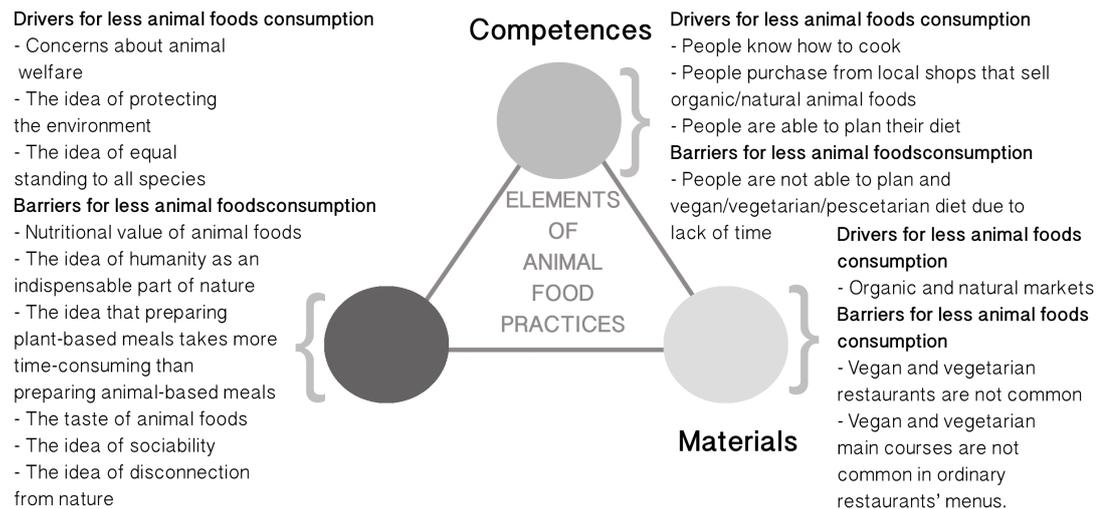
5.1. Analysis and Conclusion

Chapter Four lays out carriers' relations to animal foods, their relations to environmental concerns, and their opinions about the role of environmental NGOs in raising awareness of the link between animal foods consumption and global warming.

The results revealed that consciousness of environmental issues plays a part in the animal food practices of the research participants. However, the results also show that participants' animal food practices are based on different materials, competences and meanings. Whilst the material and competence dimensions of animal food practices do not much differ between the participants; the 'meanings' dimension of animal food practices shows greater variation. Moreover, the same meaning is ascribed different levels of importance (low or high) by different participants. First, the idea of protecting the environment is the most commonly expressed reason for avoiding animal foods consumption (P1, P2, P5, P6 and P7). Second, concerns about animal welfare have been expressed as a major reason to become vegan/vegetarian/pescetarian or to consume only organic animal foods – the belief that organic farms treat animals better than industrial farms (P3, P4, P5, P6 and P7). Third, preparing plant-based meals is more time-consuming than preparing animal-based meals (P1, P3, and P4). Fourth, a belief that animal foods are beneficial for health is one of the most often-expressed reasons for consuming animal foods (P1, P2, P6 and P7). Fifth, the decision not to consume animal foods has been described as having a negative effect on participants' social lives. Several participants stated that, since there are very few vegan/vegetarian restaurants in Istanbul, it is difficult to eat out socially with peers (P2, P5, P6). Sixth, several participants describe their fondness for

animal foods as a significant obstacle to their conscientious efforts to stop consuming them (P4). Seventh, disconnection from nature and unawareness of animal farming process are described as reasons for increases in animal foods consumption (P4). Figure 10 shows drivers and barriers of less animal food consumptions among participants.

Figure 10: Drivers and Barriers of Reduced Animal Food Consumptions



Source: Adopted from Shove et al. 2012; illustrated by the author

The empirical results of the study include several notable facts:

- **Health concerns:** None of participant consumes chicken meat; however, this is because they think chicken is unhealthy, not because of the harm done to the environment by the chicken industry. Only P4 underlines her view that the chicken industry is one of the industries most detriment to both human health and animal welfare.
- **Reliable organic labels:** P2, P3, P4 do not think that products labelled as “organic/natural” in Turkey are really organic or natural. By contrast, P1, P5 and P7 think that products labelled as "organic" really are organic.
- **NGO focus:** Unlike P1, who considers becoming a vegan again in the future, P2 is more inclined to consume meat products from producers she knows. P5 is working for the same environmental NGO (TEMA) as P3. However, she differs from P3 in her opinion that “each NGO should only focus on

its field". P5 thinks that widely recognised NGOs in Turkey, such as TEMA, should raise awareness of the impact of animal farming on the environment.

- **Age dependence:** P7 was the youngest of the participants. Alongside P1, she has the lowest environmental consciousness among those interviewed. Given that P7 (twenty-five years old) is working at the same environmental NGO (WWF Turkey) as P1 (forty-four years old), it could be concluded that the difference in their environmental consciousness stems from the difference between their ages.
- **Organic products and animal welfare:** P6 does not buy anything non-organic except eggs and he does not consume packaged foods. Alongside P4, he has the highest environmental consciousness among the interviewed participants. However, P6 did not show any interest in buying organic eggs even though he believes that organic farms treat animals better than industrial farms do. By contrast, P4 regularly purchases food from organic markets and buys only organic eggs because of her concerns about animal welfare.
- **Access:** One of the biggest difficulties cited by P2, P5 and P6's is that of maintaining an environmentally friendly diet when eating outside the home, thanks to the limited number of vegan/vegetarian/pescetarian restaurants in Istanbul. This, they say, has a negative effect on their social lives.

5.2. Remarks on the Research Questions

Main question one 1: What is the level of awareness, if any, of the impact of daily animal food practices on global warming among Istanbul environmentalists?

The results show that Istanbul environmentalists generally exhibit a high level of awareness of the impact of animal foods practices on global warming. Except P3 and P7, every participant made explicit reference to awareness of this connection. Despite the similarity between all the participants' levels of awareness and competences, it is notable that only P5 follows a vegan diet. Since the material dimensions of animal food practices do not much differ

between the participants, the different choices arise from the different meanings they ascribe to animal foods consumption.

Main question 2: How can these practices be studied in order to understand the barriers to and opportunities for change that would encourage more sustainable consumption?

Shove and her colleagues' practice theory (the element-based) approach helped to make clear how animal food practices could be systematically analysed. In other words, the element-based approach was used as an operational tool in order to conduct the study systematically. This approach provided an integrated picture of the three elements of practice for each participant, which made possible to shift the focus from individual to collective elements of animal food practice. Since this approach enabled the decomposition of participants' animal food practices into distinct elements, concrete recommendations for collective action (such as policy recommendation) were made.

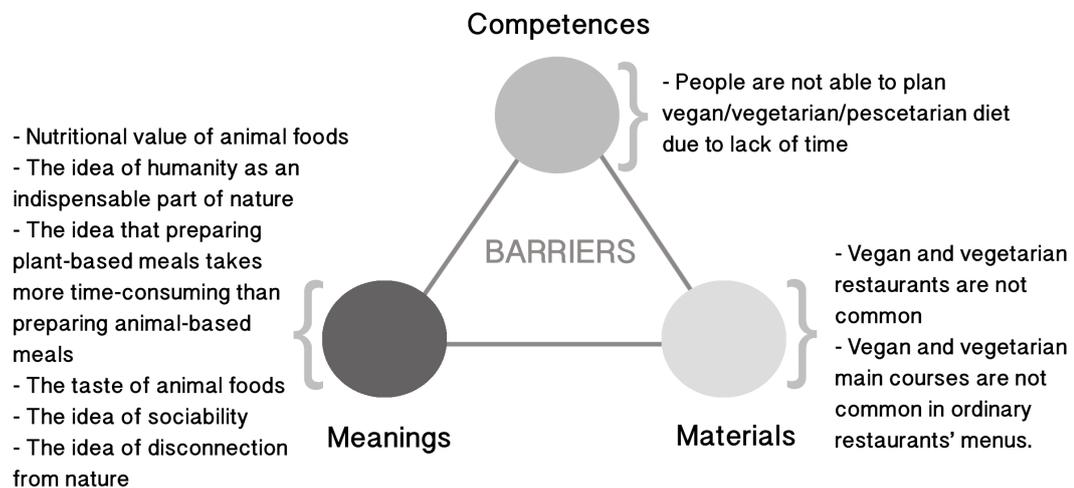
Sub-question 1: Which elements do environmentalists perceive as drivers of and barriers to reduced animal foods consumption?

Environmentalists perceive 'material' elements as the main barriers to reduced animal food consumption. First, while there is an organic market (Bugday 100% Ecological Market) in Istanbul, it opens only one day a week, which makes it difficult for customers to use it as their main source of food. Even though there are other organic and natural markets, some of the participants do not trust these markets to sell real organic products. The second material barrier is the limited number of vegan/vegetarian restaurants and vegan/vegetarian menus in the restaurants. Despite people's willingness to consume plant-based meals, the results show that they are effectively locked into their existing patterns of consumption by their current circumstances.

The meanings that practitioners associate with animal foods consumption constitute the second most significant barrier to reducing it. According to participants, the nutritional value of animal foods cannot be replaced by plant-based products. However, some of them prefer to take supplements rather than

consume animal products. As Shove et al. (2012) argue, three elements are dynamically integrated during a social practice. The empirical results revealed a link between limited availability of vegan/vegetarian restaurants and the idea of sociability. The scarcity of vegan/vegetarian restaurants in Istanbul makes it difficult for people to eat out socially with peers. As a result, the idea of sociability prompts people to consume more meat. Additionally, long working hours present another barrier, since several participants claim that preparing plant-based meals takes more time than preparing animal-based meals (see Figure 11).

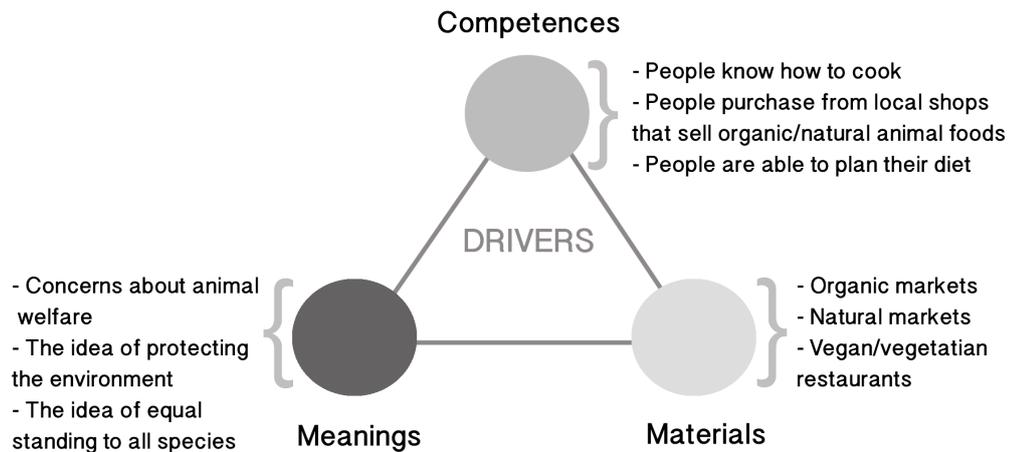
Figure 11: Barriers of Reduced Animal Foods Consumption



Source: Adopted from Shove et al. 2012; illustrated by the author

Participants perceive 'meanings' as the main drivers of reduced animal food consumption. There is no doubt that concerns about animal welfare are the major driver behind participants' choices not to consume animal foods or to consume only organic animal foods. The idea of protecting the environment comes after this. 'Material' and 'competence' elements, meanwhile, play very little part in the food practices of participants (see Figure 12).

Figure 12: Drivers of Reduced Animal Foods Consumption



Source: Adopted from Shove et al. 2012; illustrated by the author

Sub-question 2: What are the recommendations for social policies based on the practice theory, particularly Shove’s et al.’s element-based approach, in order to make animal food practices more sustainable?

Analysing participants’ animal food practices using the element-based approach revealed drivers of and barriers to reduced animal foods consumption. This approach was particularly useful in revealing the barriers that inhibit the adoption of more sustainable animal food practices. First, policies can focus on increasing awareness of the range of alternative diets and of how to prepare food using fewer animal products. Moreover, policy incentives can be created to support research and development of plant - based alternatives to meat. Second, policies might address ‘the idea of sociability’- the social relationships that influence animal food practices. The results show that the limited number of vegan/vegetarian restaurants is one of the reasons most of cited for not adopting more sustainable food practices. Policy incentives, such as subsidies and tax breaks for vegan/vegetarian restaurants, might help to address this problem. Furthermore, the culture of eating vegan and vegetarian food could be better promoted by motivating food markets to organise festivals and events, for example. Lastly, since the NGOs have the power to conduct campaigns and influence the public, they might run a campaign with the aim of re-promoting awareness of the connections between human beings and the nature. Reinforcing this connection might help to realign

people's unsustainable animal foods consumption habits with more sustainable practice. Additionally, the element-based approach enables researchers to understand people as carriers of practice; accordingly, policy interventions might more directly target the practices themselves, together with the elements that influence their evolution, rather than individual consumers.

5.3. Limitations of the Study

A master's dissertation must be researched within narrow constraints of time and budget. Due to these limitations, this dissertation primarily used semi-structured interviews. Qualitative research might be too impressionistic and subjective, since the findings mostly rely on the researcher's interpretation, perspective or perception (Bryman 2012). Since the aim of the study is to explore the level of animal foods consumption of Istanbul environmentalists in order to understand whether their consciousness of global warming has an impact on their animal food practices, semi-structured interviews were selected as an appropriate means to reveal the elements of animal food practices in detail, rather than gather participants' impressions of animal food practices in an unsystematic way. However, face-to-face interviews were time-consuming and it was difficult to persuade people to participate, so only seven interviews were conducted. Participants in this study were deliberately selected from a narrowly specified group of people. Even though it is not possible to say that all Istanbul environmentalists are aware of the impact of animal foods consumption on global warming, it may be assumed that the participants in this study in general have greater awareness of this relationship than would the general public. However, it is important to note that, given the small sample used in this study, the temptation to make broad generalisations must be resisted. That is one of the limitations of this dissertation.

The use of only one qualitative research method imposes further limitations on the dissertation. Quantitative data from an online survey, for example, might support the detailed qualitative data already gathered in order to further our understanding of environmentalists' awareness of the impact of animal food consumption on global warming on a larger scale. Although such surveys enable researchers to gather large amounts of data, it is more difficult to be

certain that those participants in such surveys are being truthful. Given the time limitations of the present research, the researcher was unable to conduct face-to-face surveys and preferred not to conduct an online one. Because the researcher believes that (based on her experience) face-to-face interviews enable more accurate screening in social research. For example, interview 1 and interview 7 conducted via email due to participants' lack of time. The participants asked the fill in the questionnaire which takes approximately one hour. As a result, P1 provided detailed answers, but not as detailed as other face-to-face interviews. Most of P7's answers, for example, consisted of just one word or single sentences without any explanation. This reflects the view, held by many researchers (e.g. Bryman 2012; Neuman 2003), that data gathered through face-to-face interactions is of a much higher quality than that gathered through indirect methods such as online surveys, email questionnaires, and so on.

5.4. Recommendations for Further Studies

NGOs and other civil society groups are not only stakeholders in governance, but also a driving force behind greater international cooperation through the active mobilization of public support for international agreements (Gemmill and Bamidele-Izu 2002 p.77).

At the time of writing, Greenpeace Mediterranean has launched a campaign entitled 'We Won't Swallow That Chicken', which is about the negative effects of industrial chicken production on human health and the environment in Turkey. Even though the campaign lays most stress on the ways chickens are genetically manipulated and dosed with drugs (antibiotics) to make them grow faster and larger, it is worth noting that Greenpeace Mediterranean is the only environmental NGO interested in raising awareness of the impact of animal foods production and consumption (particularly chicken meat) on global warming in Turkey. Two weeks after the campaign was launched, Greenpeace Mediterranean publicly announced that the biggest chicken companies in Turkey (Banvit, Beypiliç, Keskinoğlu and Şenpiliç) had sent Greenpeace Mediterranean a warning demanding the closure of campaign website. Since all these events occurred approximately one month before the submission of

this dissertation, the researcher is not able to comment on how the campaign resonated with the public. Although this campaign is expected to increase public awareness of the impacts of animal foods on the environment, it remains to be seen how this knowledge will affect food practices. Future researchers will be able to analyse the results of the campaign in two different dimensions: first, whether an environmental NGO is able to attract public attention to the poultry, particularly chicken, industry in Turkey; and, second, whether an environmental NGO is able, through its campaigning, to affect the supply chains or production processes of the biggest chicken companies in Turkey to the benefit of people's health, animal welfare and the environment. Should both possibilities come true, environmental NGOs might gain a deterministic role in national environmental politics in Turkey.

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CHAPTER SEVEN: APPENDICES

A. Sample Interview

11th May 2016

Istanbul, Turkey

QUESTIONNAIRE – Get The Animal Food of the Matter

This questionnaire is for environmentalists who are board members or employees of national or international non-governmental environmental organizations in Istanbul, Turkey. The purpose of questionnaire is to learn about the link between animal foods¹⁰ practices and environmental practices. The inputs will be used for providing a new insight into the ways of raising awareness of the link between animal food consumption and global warming. The study is being conducted through Cardiff University and Radboud University. This questionnaire is designed by Cansu Ertan¹¹.

This interview is anonymous and all data will be kept confidential. If there are items you do not feel comfortable answering, please skip them. It will take approximately one-hour. Thank you for your participation!

Background of The Respondent

Gender:

a) **Female** b) Genderqueer (GQ) / Androgynous c) Intersex d) Male e) Transgender f) Transsexual g) Cross-dresser h) FTM (female-to-male) i) MTF (male-to-female) j) other (please specify)

Age: 44

Level of education: Bachelor's Degree

Do you live a) alone b) with your family c) with you partner?

I live with my spouse.

1) How did you decide to work for an environmental organization?

Back in the days it was named "Wildlife Conservation Foundation" in Turkey, the "panda" logo of WWF draw my attention. I cannot really claim it was a very conscious decision!

¹⁰In this study 'animal food' refers food item that comes from an animal source such as meat, milk, eggs, cheese, yogurt, poultry and seafood.

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2) What does 'being an environmentalist' mean to you?

I decided to become an "environmentalist" because I wanted spend my life doing good for other people and for our world. Jobs such as selling detergents in an FMCG company would be unbearable for me.

3) Does being an environmentalist have an impact of your life style?

My eating / house cleaning / shopping habits are all affected. Even for personal care products and cosmetics such as facial creams I switched to less harmful alternatives. I shop much less. I now don't throw away my jeans, socks; I patch them and continue using.

4) What is the biggest environmental problem today?

Climate change and high consumption.

The questionnaire will explore three areas

Part 1: Consumption habits and importance of food choices

5a) How many times a week do you go food shopping?

Once a week we do our main market shopping and we sometimes do several other smaller ones during the week.

5b) Where do you do your weekly shopping?

We prefer shopping from the nearest Migros and Mopas supermarkets. From Mopas, we buy our vegetables and fruits; and from Migros, we buy our milk, eggs and yoghurt. We tend to visit local organic shops for pulses and detergents. A few months back I signed up to Komsukoy, who produces organic vegetables and delivers to my door. For the time being, I order from them just sufficient amount of vegetables to be delivered to my work place every Friday.

5c) If respondent shops in different places (market and/or supermarket) ->Why and for which products?

I buy vegetables and fruits from Mopas because they sell them cheaper on Saturdays. I buy organic eggs from Migros because they always have them in stock. I can only find organic olive oils and openly sold pulses at local organic shops. Finally, I signed up to Komsukoy for vegetable deliveries because I am too lazy to go to organic bazaar in Kartal on Sundays early in the morning.

6a) Is food-mile important to you?

I of course care about it; I cannot really say I take it into consideration as a top priority decision parameter. Also in Turkey, it is not easy to access food-mile information of a product; for vegetables, fruits or other. Now that I am thinking about it, in fact one of the reasons why I decided to start ordering from Komsukoy; they are close to Beykoz, where I live.

6b) Do you mind where the animal food comes from?

I never buy imported animal food (cheese, etc.). I buy organic eggs but I don't check the producer / origin. I sometimes make my own yoghurt, sometimes buy branded ones. I don't drink milk. I sometimes make my own kefir, sometimes buy from local producers. I never eat chicken. I never buy red meat for home, but occasionally consume outside. For goat cheese and cow kaymak I visit a local shop near my work place in Spice Bazaar called Cankurtaran Gıda. They told me their production facility is in Silivri.

7a) Do you prefer organic and/or natural food?

Whenever I can buy organic food, I prefer it. I never buy packaged food for home. I don't consume coke and other sugary drinks. I eat mostly vegetables, fruit, pulses, dried fruits & nuts, seeds, goat cheese, kefir and eggs. Having said these, I am not a vegetarian.

7b) If the answer is yes -> Why do you prefer organic and/or natural food?

For my good health and good health of nature.

8) How many times a week do you consume animal food?

I eat yoghurt and goat cheese every day. Twice a week I eat eggs. I eat meat once a month. I drink kefir frequently. I don't drink milk.

9) Do you think animal food is important in your diet and why?

Unfortunately, I couldn't manage to become a vegan or a vegetarian. During the times when I tried veganism and vegetarianism, I experienced serious muscle mass loss because of the diets I followed. For this reason; I resumed consumption of food with animal protein. Unfortunately, I still suffer from arthralgia due to muscle mass loss I experienced.

10a) What are the occasions when you are eat and/or prepare animal food at home?

We cook meat at home when we have guests. In addition to that, we daily consume yoghurt and goat cheese.

10b) If respondent is vegan -> Do you prefer different kind of menu when you have a guest, especially for kids?

11) When you eat in restaurant do you order animal food?

I eat outside for lunch breaks at work. Other than that, I eat outside several times a week. When I eat outside, 90% of the time I prefer a vegetable dish, a salad or a pulse dish.

12a) Do you think that consuming animal product can be replaced with other products?

I think it can be; but I couldn't succeed to do so completely. I feel the need to continue consumption of animal food as 10-20% of my total food consumption.

12b) If the answer is yes -> Which products?

Vegetables have a certain amount of proteins in them. Seeds, pulses and dried fruits & nuts are also rich on protein. I will again try to become a vegan in the future when I will have more time to prepare food.

13) What is the percentage of your pay-check that goes to food?

10%

14) Would you buy organic and/or natural food even if your personal budget was lower?

I would try to do so as much as I could.

Part 2: The Link Between Animal Food and Global Warming

15) Could you please list the top sectors which have the biggest anthropogenic impact on the environment?

Energy and agriculture sectors.

16a) What sort of knowledge do you have about the link between animal food and global warming?

I know they are directly linked and this is part the reason behind my ambition of becoming a vegan.

16b) If there is -> What is the source of knowledge and what sort of knowledge do you have?

Reports of WWF, Greenpeace and several newsletters. Animal agriculture is one of the sources of methane, which is a 21 times more efficient greenhouse gas than CO₂ (originated from the digestion systems of animals). Also, deforestation is taking place by opening up space for more agriculture areas with the aim for growing animal feedstocks.

16c) What are the role of environmental organizations to provide this knowledge?

They have a very important role. We (WWF) for instance, share this knowledge with as much people as we can during our programs such as Yeşil Ofis ("Green office"), Yeşil Satış Noktası ("Green Sales Point"), Yeşil Nesil Restoran ("Green Generation Restaurant").

17a) Do you think consuming less animal foods for environmental reason is a priority for environmentalists?

I think it is important to all environmentalists, but I cannot say it is a priority for all of them.

17b) If the answer is yes -> What are people's motivations behind their foods choices?

I guess it is mostly health concerns. Having said that, I've got friends following animal protein only diets merely for the sake of following popular alimentation programs.

17c) What are the most influential drivers and barriers that affect people's consumption behaviour of animal foods?

Trendy high protein diets; the fact that meat food is prepared faster and easier by working women (well, you have to sift and clean vegetables); cultural habits, i.e. spouses (men) who don't like vegetables and don't deem them proper food; misinformation publicly spread by red meat / chicken industries; lack of sufficient public knowledge on nutrition values of vegetables and other non-meat food; lack of sufficient public knowledge on the impact of agriculture on nature; immature public awareness on harms of animal foods.

Part 3: Future of the animal food practices

18) Do you think that environmental organizations should raise the awareness on the environment of animal food consumption?

Yes, I do. We (WWF) try to raise the awareness on the environment of animal food consumption, even though not at the level of a dedicated campaign yet. Greenpeace however, started to touch this subject with a dedicated campaign.

19a) What are the shortcomings of environmental organization approach for raising awareness of the link between food consumption and global warming?

I will attempt to answer this question from the perspective of WWF in particular. WWF organises various events on the subject of raising awareness of the link between food consumption and global

warming, but I think they are inadequate. I believe we should dedicate a campaign for this purpose. In any case, food will be one of the nature preservation topics we will be focusing on in the future. As of now, we are currently in touch with restaurant owners and administrators under the umbrella of the Yeşil Nesil Restoran ("Green Generation Restaurant") program on the subject of sustainable food supply.

19b) What are the shortcomings of the government approach for raising awareness of the link between food consumption and global warming?

They don't exert any effort on this subject at all.

20) In your opinion, how big is the impact of our individual food choices and everyday behaviours on the planet?

Very big; because demand causes supply. In our days however, the demand is being manipulated by industrial firms that own the capital.

Researcher: Thank you very much for your participation. Would you like to add anything else?

Interviewee: Thank you very much. We would be glad if you could share your thesis upon completion. We believe it would be a valuable source of information for us.

B. Sample Consent Form

Consent Form - Anonymous data

I understand that my participation in this project will involve completing one questionnaire about my attitudes towards animal food consumption which will require approximately one hour of my time.

I understand that participation in this study is entirely voluntary and that I can withdraw from the study at any time without giving a reason.

I understand that I am free to ask any questions at any time.

I understand that the information I provide will be shared with the research team or research supervisor and may be used in subsequent publications.

I understand that the information provided by me will be held totally anonymously, so that it is impossible to trace this information back to me individually.

I understand that, in accordance with the Data Protection Act, this information may be retained indefinitely.

I, _____ consent to participate in the study conducted by Cansu Ertan¹², with the supervision of Dr Mara Miele (Cardiff University) and Dr Duncan Liefferink (Radboud University).

Signed (researcher/student):

Signed (Participant):

Date:

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