

# Environmentally Sustainable Meat Consumption: An Analysis of the Norwegian Public Debate

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**Abstract** Private consumption is increasingly being blamed for resource depletion and environmental degradation, and the discourse of ascribing environmental responsibility to the individual consumer has become a part of mainstream policy-making. Measures aimed at promoting consumers' voluntary engagement through sustainable consumption now constitute an important part of public sustainability strategies. Nevertheless, the actual progress made in changing people's consumption patterns in a more sustainable direction has been modest. Based on a quantitative and a qualitative content analysis of articles on environmentally sustainable consumption of meat published in five national and regional newspapers in Norway between 2000 and 2010, it is argued in this article that an important reason for the lack of both political and consumer engagement in the issue can be attributed to a discursive confusion that arises from a simultaneous existence of mainly two clashing discourses on what is actually environmentally sustainable consumption of meat. One that is focussing on the environmentally malign aspects of consumption and production of (especially) red meat, and another that is focussing on the environmentally benign aspects of production and consumption of red meat. The findings imply that the lack of consensus on the character of the problem constitutes a major barrier for the opportunity to change people's consumption patterns in a more environmentally sustainable direction through the use of voluntary measures.

**Keywords** Environmentally sustainable consumption · Meat · Self-regulation · Media analysis · Public debate · Environment

Ever since the United Nations Conference on Environment and Development in 1992, the concept of sustainable consumption has attracted the attention of scholars from a variety of disciplines worldwide. Private consumption is increasingly being blamed for resource depletion and environmental degradation (Schrader and Thøgersen 2011), and the discourse of ascribing environmental responsibility to the individual consumer has become part of mainstream policy-making (Halkier 2010; Wahlen et al. 2012). Both at the global and the

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local level of governance, consumers have been given an important role and responsibility for environmental sustainability. The consumers are expected to be aware of their responsibility for environmental sustainability and thus of the need for them to adapt their consumption habits (Gandenberger et al. 2011; Rumpala 2011; Smismans 2008; Thøgersen 2005). Policies to promote sustainable consumption are rarely coercive and rely more on education, information provision, persuasion, and incentives (Heiskanen et al. 2010). There is thus a general call for measures aimed at promoting consumers' voluntary engagement in moving production in a more environmentally sustainable direction, through, e.g., product labelling schemes and other forms for consumer involvement (Boström and Klintman 2008; Jordan et al. 2003, 2004; Kasa 2003; Vogel and Kagan 2002).

Despite the initial enthusiasm about the transformative potential of sustainable consumption, the actual progress made in changing people's consumption patterns in a more environmentally sustainable direction has been modest (Biel et al. 2005; Thøgersen 2005; Thøgersen and Crompton 2009). One example, which is studied in this article, is the consumption of meat. In Norway, there has been a step-wise increase in the meat consumption during the last decades from approximately 46 kg per capita in 1989 to 57 kg in 1999, and to 68 kg in 2011 (Animalia 2012). The food supply statistic from the UN Food and Agricultural Organization (FAO) show the same tendency.<sup>1</sup> Globally, there has been a near doubling of per capita meat consumption since records of FAO started shortly after 1960 (Sutton et al. 2013). However, an environmentally sustainable consumption pattern of meat would rather be defined by a decrease in the level of meat consumption per capita as the production and consumption of meat contributes to a broad range of partially interlinked environmental, food security, and health problems. Problems include inefficient feed conversion ratios, large land and feed requirements, and direct as well as indirect environmental effects of which significant carbon dioxide and methane emissions as well as water pollution are prominent (Brown 1997; Kasa 2008; Molden and de Fraiture 2004; Smil 2000). Worldwide, agricultural activity, especially livestock production, which alone accounts for 18% of the total greenhouse-gas emissions, is a significant contributor to climate change (FAO 2006; McMichael et al. 2007). This number is being debated, and Goodland and Anhang (2009) claim that livestock and their by-products actually accounts for as much as 51% of the annual worldwide greenhouse gas emissions. According to Sutton et al. (2013), the use of technical measures alone to reduce the environmental impacts of the food value chain will not be sufficient; we will need to see a change in consumption patterns as well. One of the solutions presented is a shift from consumption of animal- to plant-based protein (Smil 2002). Stehfest et al. (2009) point out that a global transition towards low-meat diets may reduce the costs of climate change mitigation by as much as 50% in 2050.

Due to the popularity of meat, and the variety of factors that influence food patterns, there is a need for a profound societal transition to achieve this goal (Schösler et al. 2012), and only a few studies have discussed the consumer readiness and willingness to eat less meat (e.g., de Boer and Aiking 2011; Elzerman et al. 2011; Schösler et al. 2012). However, several scholars have called critical attention to structural and practical barriers to sustainable consumption that consumers regularly face in their immediate consumption environments (e.g., Berg 2011; Gandenberger et al. 2011; Moisander 2007; Muster 2011; Pape et al. 2011; Thøgersen 2005). It has been argued that sustainable consumption practices are time-consuming, costly, and stressful (Valor 2008), and that the abundance of sustainability-related information has been viewed as a challenge to the consumers (Moisander 2007). It is often hard for the consumer to manoeuvre in the web of available information, and to learn

<sup>1</sup> The changes in the structure of meat supply in Norway can be found in the [Appendix](#).

what they actually can do and thus take the personal responsibility for sustainable development that they are expected to take. According to Pape et al. (2011), policy initiatives for sustainable consumption must reconcile the desire for greater dialogue between diverse policy actors with the need for government to play a central role in changing consumption patterns.

In this article, the aim is to respond to these consumer and policy-related challenges by studying how sustainable consumption of meat has been discussed in Norwegian press throughout the last decade. It is the thesis of the article that the consumers are given a significant share of the responsibility for sustainable consumption of meat. However, it is also argued that an important reason for the lack of both political and consumer engagement in the issue of environmentally sustainable meat consumption can be attributed to a discursive confusion that arises from a simultaneous existence of mainly two clashing discourses on the nature of environmentally sustainable consumption of meat. The discussion is based on a both quantitative and qualitative content analysis of relevant articles published in five national and regional newspapers in Norway between 2000 and 2010. The focus is on how environmentally sustainable consumption of meat has been discussed in the press and how the consumers have been portrayed. The discussion is centred on the following intertwined questions: (1) Who are the main actors in the debate and what are the conflict alignments? (2) What are presented as the unsolved problems and dilemmas in relation to environmentally sustainable meat consumption and which solutions are proposed? The objective of this article is thus twofold: Firstly, it aims at identifying the main actors in the debate and the implications of their understanding of environmentally sustainable meat consumption. Secondly, it attempts to determine the role ascribed to the consumers as responsible actors in the Norwegian public debate. Overall, the article contributes to the literature on consumer policy studies by elaborating on the complexity of sustainable consumption related information and the political power struggles that is evident when discussing and defining environmentally sustainable meat consumption.

The article is organized as follows: In the following section, I elaborate on the development in approaches to the role and the responsibility of the consumer, and the transfer of responsibility towards the consumers through political and sustainable consumption. This is followed by an overview of the literature on constraints on consumer choice options connected to environmentally sustainable consumption of meat. This is used as a starting point to the analysis of the public debate on environmentally sustainable meat consumption and responsibility allocation in Norway. Thereafter, the methodology of the study and the empirical findings are presented and discussed. Finally, the implications of the findings for Norwegian sustainability and consumer policies are discussed.

## **Development in Approaches to Consumer Power and Responsibility**

Theoretical approaches vary considerably in how they understand consumer responsibility and freedom. Traditionally, two extreme positions have dominated the debate on consumption and power: the neoclassical and the Marxist perspective. The neoclassical position, which draws on the influential school of rational choice, sees a sovereign, rational, and utility-maximizing consumer in a system where consumption is seen as the “sole end and purpose of all production” (Fine 2002). Thus, the power lies in the hands of the consumer and can, according to Abbott (1967), be regarded as the economic parallel to the citizens' political power to elect its government. This idea is contrasting to the critical position of Marxist theory, which associates consumption with reproduction, mirroring

conditions of production and with power relations characterized by alienation, fetishization, and false needs (Kjærnes 2009). Within this perspective, consumer sovereignty becomes meaningless because corporate actors will be able to socialize the consumers to adapt appropriate behaviours (Jensen 1984; Galbraith 1958, 1967; Kjærnes 2009).

Since the 1970s, with the emergence of advanced liberalism, the most powerful images of the economic function of citizens have been decisively altered (Isin and Wood 1999). According to Miller and Rose (2008, p. 209), advanced liberalism emerged as a response to the “welfare state’s financial over-ambitions, its bureaucratisation and professionalization of social life, and lack of individual influence of our own lives.” A new “governmentality” emerged, which placed emphasis on the personal responsibilities of individuals, their families, and their communities for their own future well-being, and their own obligation to secure this (Isin and Wood 1999, p. 146). According to Isin and Wood (1999, p. 146), liberalism invented self-government as a mode of regulation by constituting individuals as autonomous moral agents responsible for their own destiny. This shift towards a new regime of governmentality has been called “advanced liberalism” and its tactics, strategies, and rationalities “neoliberal.” According to Rose (1990), this ethic cultivates a new image of the citizen—not that of the producer but of the consumer. Through consumption, we are urged to shape our lives, and to solve collective problems, by the use of our purchasing power. Within the neoliberal paradigm, risk reduction thus becomes an individual responsibility, rather than a collective or state responsibility. Neoliberalism therefore constitutes the individual not as a subject of intervention but as an active agent of decision and choice (Isin and Wood 1999, p. 147).

Within the neoliberal paradigm, we have seen a growth in the literature on political consumers and citizen politics (e.g., Micheletti et al. 2004). Instead of direct state intervention, strategies are being developed to mobilize and include business, civil society organizations, and individuals in implementing the society’s goals (Guthman 2007; Kjærnes 2011; Marx et al. 2012). According to Rose (1999), this form of governing from within may be understood as a part of the liberal society’s regulating tools. Consumer actions are regarded as private, but are at the same time to be shaped to be “responsible.” This is done through information campaigns, product labelling, and other information tools. A common trait is that the approaches rely on voluntariness (Boström and Klintman 2008). People are to be morally convinced that they need to take on responsibility as a consumer (Kjærnes 2011). In the words of Micheletti et al. (2004, p. xiv) “the ideal-type Egoistic Man must be modified to an ideal-type Responsibility-Taking Political Consumer, who applies values other than purely self-interested economic ones in consumer choice situations.” This approach has been especially relevant in the field of environmental policy as it has been argued that the old model of regulation is unable to deal with diffuse, complex, large-scale, and transboundary risks and problems (Giddens 1990; Beck 1992). It is often argued that consumers themselves can make a difference with regard to—and should therefore carry their fair share of the responsibility for—the sustainability of their consumption pattern (Thøgersen 2005). However, critics have argued that the transfer of responsibility for the social and environmental consequences of consumption to individual consumers ignores the fact that consumption is an embedded part of systems of provision in various forms, and thus also in social, cultural, and institutional framework conditions (Fine 2002; Fine and Leopold 1993; Gandenberger et al. 2011; Southerton et al. 2004). The way production, manufacturing, distribution, and marketing is organized in our societies are pointed to as barriers. According to Jacobsen and Dulsrud (2007, p. 478), “consumers often lack necessary, reliable information and they do not have the autonomy to make unbiased choices” and they lack “ethically relevant alternatives to choose from.” Another important critique is the stated “value-action gap” that exists between how people think they should behave and their actual behaviour (e.g., Gardner and Stern 1996; Owens 2000; Pape et al. 2011).

## Consumer Choice Constraints

In line with this transfer of responsibility towards the consumer, Hansen and Schrader (1997) argue that consumer policy should be revised to reflect that consumers have an ethical responsibility for the consequences of their actions. This can be done by empowering consumers through reducing constraints at the individual level as well as external constraints. A few studies have discussed the consumer readiness and willingness to eat a more plant based diet, and several individual level constraints have been identified. First of all, consumers seem to be unaware of the environmental impact associated with meat consumption (Lea and Worsley 2008). In a Swiss study, consumers clearly rated purchasing organic food and foregoing meat as least environmentally beneficial (Tobler et al. 2011). Furthermore, there is a sociodemographic variation in consumer willingness to reduce meat consumption. Women are more likely to be willing to, and more likely to have already reduced their meat consumption (Latvala et al. 2012; Tobler et al. 2011). According to Lea et al. (2006), university educated and younger people may be more receptive to information on changing to a plant-based diet, as they appear to be more willing to alter their diet than the non-university educated and oldest groups. However, in the study by Tobler et al. (2011), neither age, educational level, health consciousness, nor money were found to significantly influence consumers' stated willingness to reduce meat consumption. Recent work has also shown that nature-related values are significantly correlated with vegetarianism and with a low level of meat consumption (de Boer et al. 2013). To explain how meat choices can be explained by these values it is, according to several psychological studies, important to consider the underlying motivations (de Boer et al. 2007; Schösler et al. 2012). Little research has, however, been done on the external constraints on consumers' choice options connected to the environmental sustainability of meat consumption (e.g., Vinnari and Tapio 2012). According to Thøgersen (2005, p. 147), there are several external conditions that can constrain consumers' choice options. They can be “constrained physically by conditions determined by nature, by the societal infrastructure, by available products and service alternatives, and by scientific uncertainty about what is actually the most sustainable among competing options.” Choices are also constrained by the way relevant information is communicated to the consumer (Thøgersen 2005, p. 147).

## Methodology and Presentation of Data

In this article, the complexity of the regulation of consumption in a sustainable direction is approached by studying how the public debate on sustainable consumption of meat is presented in the press in the period from 2000 until the end of 2010. The point of departure is that the notions of “environmentally sustainable development” and “environmentally sustainable consumption” often take multiple and possible conflicting meanings. It has therefore been expedient to combine a qualitative and quantitative approach to the content analysis. The analysis is based on a selection of articles from five Norwegian newspapers. The reason for choosing newspapers as the primary source instead of magazines, online newspapers, social media, radio, and TV is that newspapers offers a broader and less volatile coverage of the theme environmentally sustainable consumption. Norwegian newspapers are made available through an online media database, ATEKST, which covers about 60,000 sources and more than 300 million articles (Retriever 2013). The newspapers are selected on the basis of their features as national or regional newspapers covering a broad range of interests; hence, they reach a large proportion of the population. Klassekampen is a national

niche newspaper characterized by its left radical approach. *Aftenposten* is the largest newspaper in Norway. The paper is read by political decision makers and is regarded as the opinion leader in Norway. *Dagsavisen* is a regional newspaper issued in Oslo. *Dagbladet* is a national newspaper for sale to non-subscribers, which is characterized as a tabloid. *Dagens Næringsliv* is a national niche newspaper within the field of business and finance. Together, these selected newspapers cover a broad range of subjects and approaches in the public debate. We can assume that the chosen newspaper's coverage will illuminate central elements in the discourse on environmentally sustainable consumption and how different actors are positioning themselves in the debate. The scale of the media coverage can give some indications about the knowledge about and attention given to environmentally sustainable consumption of meat among the Norwegian population and agenda setters.

Sustainable consumption usually refers to a level and pattern of consumption, which meets the needs of the present without compromising the ability of future generations to meet their needs (World Commission on Environment and Development 1987), and environmental sustainability is defined by Goodland (1995, p. 10) as “the maintenance of nature capital”. In this article, the understanding of *sustainable consumption of meat* is limited to concerns related to the environment with a special focus on climate change since livestock production is a significant contributor to climate change. However, the definition is broad and everything from organic production to direct attempts to reduce consumption (of meat) is included. As the aim of the article is to study what the actors in the debate understand as environmentally sustainable meat consumption, this will thus not be defined here. In the search string there is a focus on bovine meat, as this is regarded as the least environmentally benign type of meat. However, the search does not exclude other types of meat like pork or poultry.

#### Article Search and Selection

The article search was done in the online media database ATEKST with the following search request:

(consumption\* OR trade\* OR purchase\*) AND (bovine meat OR beef OR \*meat) AND (environment\* OR sustainability\* OR climate\*).^2

This query generated 1218 results between January 1, 2000 and December 31, 2010. Out of these, 582 were selected after an initial screening of the articles' title and introduction. These articles were then read more thoroughly, and eventually, 231 articles were selected and have been manually recorded. The criteria for the selection is as follows:

- (1) The text must be related to consumption or consumers.
- (2) At least one actor in the text must encourage sustainable consumption of meat (texts discussing general trends will not be selected).

When analysing media content, it is necessary to split the text into meaningful units (Østby et al. 2007). A codebook was therefore designed in order to be able to systematize the data material. This approach makes it possible to identify patterns and to get an overview of the diversity in the material, which is necessary in order to proceed with a qualitative content analysis. The quantitative content analysis will provide an overview of the content of the articles and indicate tendencies in the data material. Once the article selection was made, they were therefore categorized according to 13 variables: date, newspaper, genre, author,

<sup>2</sup> The search string is translated from Norwegian. In Norwegian, the search string looks like this: (forbruk\* OR handel\* OR kjøp\*) AND (storfe kjøtt OR biff OR \*kjøtt) AND (miljø\* OR bærekraft\* OR klima\*).

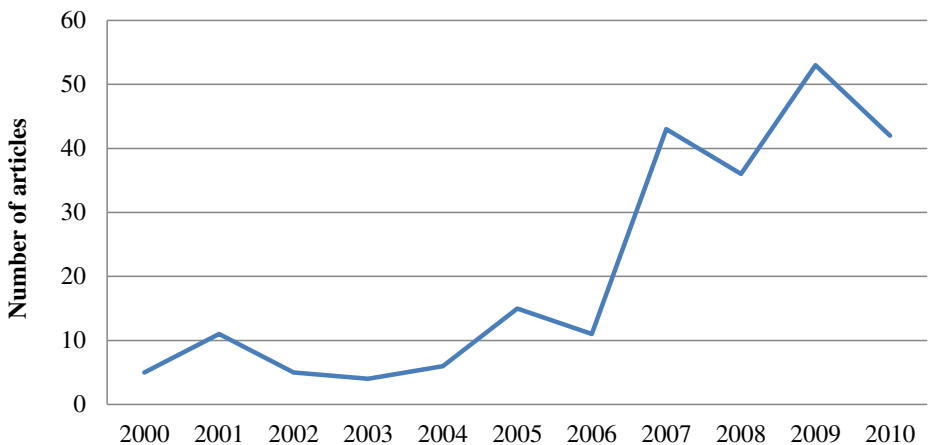


theme, event, area of consumption, actors, country, argument, agents responsible, proposed solution, and quotes. This categorization provides a basis for a deeper qualitative analysis as several of the categories are essentially qualitative. Some texts deal with several themes, actors, sectors, actors responsible, and/or solution at the same time. These have been categorized according to the variable value that is given most attention. For instance, an article dealing with a theme like meat and environment, which at the same time focus on or relates this to climate change and health, is given the variable value “meat and environment” if this is the most important or fundamental theme in the article. When categorized as “consumption and environment,” meat is mentioned in the article, but it is not necessarily the most important element. An example of an article in this category may be an article about how consumers can save the environment using less polluting products and practices like the three Bs often mentioned in the Norwegian debate: meat (biff), housing (bolig), and transport (bil). For the qualitative analysis, “typical” articles presenting the views of the different actors and the different themes were strategically selected.

### Press Coverage of Environmentally Sustainable Meat Consumption Between 2000 and 2010

Figure 1 shows the chronological evolution of texts, and it is clear that the amount of articles explicitly discussing the interrelation between consumption of meat and environmental considerations has increased throughout the time period. How much attention can we expect the media to give to a subject like sustainable meat consumption? A similar search for the other Bs, housing (bolig) and transport (bil), reveals that environmentally sustainable consumption of meat has been given less attention than the other fields of consumption. Compared to 1218 immediate results for the search for meat, the search for housing replacing the area of consumption in the search string with (housing OR \*house OR heating) generated 5829 results, and the search for transport with a similar search string replacing the area of consumption with (car OR \*transport OR \*travel) generated 7089 results.

In spite of the limited attention given to the topic of environmentally sustainable consumption of meat, it is evident, based on the 231 articles that were selected, that the



**Fig. 1** Press coverage of environmentally sustainable meat consumption in the period 2000–2010. Data collected from ATEKST ( $N=231$ )

importance of the topic has evolved during the period. The most prominent development is the explosion of texts on environmentally sustainable consumption of meat after 2006. There was a prominent increase in articles from 11 in 2006 to 42 in 2007. In 2000, only five articles were registered in the five selected newspapers, while the number was 42 in 2010. This development coincides with other important events in Norwegian environmental policy. The Norwegian commission on low emissions presented its findings and recommendations in October 2006; the government supported information campaign “Klimaløftet,” directed towards the public as well as businesses and local governments, was initiated in 2007, and several white papers indicated that environmental concerns was being prioritized on the political agenda.

In the period from 2000 until the end of 2010, 31 white papers on environment were sent to the legislature. Throughout the same time period, 82 draft resolutions filed under the category “environment” were presented for the legislature. Three white papers from this period placed a special emphasis on sustainable consumption. The first is Report no. 26 to the Storting on *The Governments Environmental Policy and the State of the Environment in Norway*, which especially emphasize information provision as a tool to help people make environmentally friendly choices in their everyday life (Norwegian Ministry of Environment 2006–2007a). In 2007, the government published Report no. 34 to the Storting on *Norwegian Climate Policy*, which focusses on how Norway will meet its international commitments and presents the government's international and national climate strategy. The most emphasized tools in the national climate policy tool box are use of quotas, participation in the European quota regime, and use of taxes. However, the government also launched the national climate awareness campaign (Klimaløftet) (Norwegian Ministry of Environment 2006–2007b). The final white paper is Report no. 39 to the Storting from 2009 called *Climate Challenges—Agriculture Part of the Solution*. This report is written by the Ministry for Agriculture and Food, and, as the title indicates, its focus is on how the agriculture can contribute to solve the climate challenges. The report places special emphasis on population growth and international food crisis caused by climate change and argues that Norway should maintain or even increase its agricultural production level because “climate change is a direct threat to food safety in some parts of the world” (Ministry for Agriculture and Food 2008–2009, p. 89). The report also discusses meat in a climate perspective and argues that production of meat is energy intensive, but that it also takes advantage of the grass resources that otherwise would not have been used. These national political events, combined with an increased international focus on climate change,<sup>3</sup> are plausible agenda setters for the public debate and reasonable explanations for the increased media focus from 2007.

### Themes and Actors in the Debate

As could be expected based on the search string, the categorization of the selected articles according to their theme shows that the themes “consumption and environment” and “meat and environment” are the most frequent ones. Both themes received relatively much attention from 2007 until 2010, but the theme meat and environment peaked in 2007 and in 2010. Ten articles from the selected material were categorized under the theme “agriculture,” and six of these articles were published in 2009. The top was reached in

<sup>3</sup> IPCC released its fourth assessment report, the movie “An Inconvenient Truth” with Al Gore was launched, and former Vice President Al Gore received the Nobel Peace Prize. In December 2007, the 13th UN Climate Change Conference was held at Bali, and the Bali roadmap was adopted.



2009 when 53 texts were registered. 2009 was also the year when most articles were registered in the theme category climate/climate change. This coincides with the United Nations Climate Change Conference in Copenhagen, which was given much attention in Norwegian media. 2009 was also an election year in Norway, and according to Tjernshaugen et al. (2011), environment was one of the most important single issues in the parliamentary election in 2009. A word count of the words *environment* and *climate* in three newspapers and one news agency<sup>4</sup> from 1989 until 2009 confirms that the public interest for climate change increased significantly in 2007 (Tjernshaugen et al. 2011).

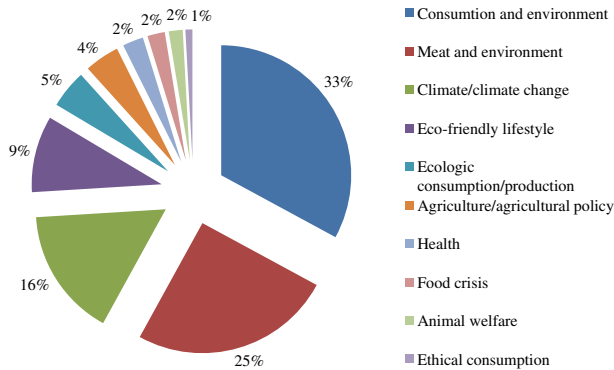
Figure 2 illustrates the distribution of themes in the selected articles. As already revealed, the main themes in the debate are categorized as meat and environment, consumption and environment, climate change, and eco-friendly lifestyle. All the selected texts mention sustainable consumption of meat, but the texts are here categorized according to their main theme. A third important illustration of the data material is the distribution of actors involved in the debate. As illustrated in Figure 3, the active group of actors is the environmental organizations that are prominent in 32% of the articles, followed by academia (15%) and the government/politicians (13%). The environmental organizations who have been active in the debate are mainly the Future in Our Hands (FIOH) and Global Action Plan Norway (GAP Norway), which both work to promote more environmentally friendly consumption patterns. GAP Norway mainly focus on consumers and consumption, while the Future in Our Hands “work to make government and business facilitate green and ethical choices” in order to “... create support for the need for a reduced consumption of natural resources in Norway” (Future in Our Hands 2011). The actors from academia are mainly researchers who speak out as experts based on on-going research projects, but they also participate in the debate and criticize the government and the environmental organizations' focus in the debate. The category government/politicians is a broad category, which includes the government and the opposition as well as international politicians. Politicians representing the Socialist Left Party (SV) and the Centre Party (SP) are especially active in the national debate, and international politicians especially from the green party in Germany are referred to several times in the debate.

### The Lack of Consensus on What Constitutes Sustainable Consumption of Meat

A finding from the in-depth qualitative analysis is that the most fundamental question in the debate on sustainable meat consumption is the question of what *is* actually the most environmentally sustainable practice. Even though sustainable consumption, in general, and sustainable meat consumption, in particular has been on the agenda for a long time, one of the most evident and important findings from the analysis are the lack of consensus on this basic question. The disagreement about the environmental impacts of meat consumption characterises the public debate, and the main opponents are the environmental organizations versus the agricultural organizations. This cleavage line partly coincides with another important cleavage line in the debate—the cleavage between the Centre Party and the Socialist Left Party that governed together with the Labour Party from 2005 until 2013.<sup>5</sup>

<sup>4</sup> Aftenposten, Nordlys, VG, and NTB.

<sup>5</sup> In September 2013, they lost the parliamentary election to a coalition of centre and right wing parties. The Centre Party controlled the Ministry for Agriculture and Food, and the Socialist Left Party controlled the Ministry of Environment. Both the Centre Party and the Socialist Left Party have relatively low support among the citizens with respectively 6.5 and 8.8% of the votes in 2005 and 6.2 and 6.2% of the votes in 2009. At the election in 2013, the Centre Party received 5.5% of the votes, while the Socialist Left Party received 4.1% of the votes.



**Fig. 2** Themes in the debate between 2000 and 2010 ( $N=231$ )

This cleavage line between the two parties is also reflected in the diverging focus and attention given to the production and consumption of meat in the previously mentioned white papers presented by the Ministry of Environment and the Ministry of Agriculture and Food. Of the environmental organizations, FIOH is the single most active participator in the debate, and uses arguments like the following in order to convince its opponents and the public about the environmental impacts of meat consumption:

“On the dinner plate, meat represents 99 per cent of the production related emissions” (Hermstad in Diesen 2005).<sup>6</sup>

“There cannot exist a professional doubt that the current production of red meat is very harmful to the environment” (Hermstad 2008).

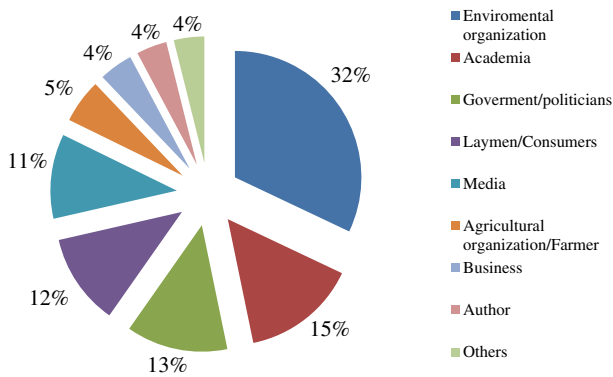
“The best way to reduce our CO<sub>2</sub> emissions would be to reduce our consumption of meat. This would also represent the healthiest alternative” (Hermstad in Diesen 2005).

On the other hand, the agricultural organizations like the Norwegian Farmers' and Smallholders Union (NBS) and the Norwegian Farmers' Union argue that the production of meat in Norway needs to be maintained or even increased because it is important to make use of the large Norwegian grazing resources. This was also argued by Centre Party politician Trygve Slagsvold Vedum (in Lie 2009):

“Sheep farming based on grazing is the most environmentally friendly and the economically best way to produce meat.”

The agricultural organizations and politicians from the Centre Party also focus on the varying environmental impact of different types of meat, and argue that meat production that is dependent on concentrates is more problematic for the environment, and thus that the increase in the production of white meat like pork and poultry is problematic (e.g., Skjeseth 2009; Holen et al. 2010). According to Ole-Jacob Christensen (2008) from NBS, the “dependence on concentrates contributes to that an increased amount of the world's grain resources are used to feed animals instead of humans.” Representatives from the agricultural branch thus argue that the best and the most environmentally friendly solution is an increased focus on short-travelled food and

<sup>6</sup> All citations from the media analysis are my translation from Norwegian.



**Fig. 3** Actors in the debate between 2000 and 2010 (N=231)

to increase ruminant meat production in Norway. In contrast, the environmental branch argues that “meat from ruminants gives three times the greenhouse gas emissions compared to pork and poultry, and sixty times the emissions compared to vegetables. That the meat stems from grazing animals, or that it is short-travelled, does unfortunately not help a lot” (Germiso 2007).

Both the environmental and the agricultural branches try to strengthen their arguments by linking them to other themes. As we have seen, the environmental branch links their argument, that the best way to reduce our CO<sub>2</sub> emissions is to reduce our meat consumption, with health arguments. While the agricultural branch on the other hand are linking their arguments to the debates on the global food crisis and argue that Norway would need to increase its meat production in solidarity with the world population. The different branches’ main arguments can be summed up as illustrated in Table 1. These arguments are typical examples, and this summary represents a simplification of the debate.

Even though sources which are generally perceived as credible, like the Food and Agriculture Organization of the United Nations (FAO), the Norwegian Board of Technology and several research institutions are referred to in the debate, it is evident that there are considerable disagreements about important elements in the debate. Two clashing discourses on what *is* actually environmentally sustainable meat consumption (and production) are evident in the debate. One that is focussing on the environmentally malign aspects of consumption and production of (especially) red meat and another that is focussing on the environmentally benign aspects of production and consumption of red meat. These positions are consolidated though linkage to other issues like global responsibility and international food security. The main opponents in the debate are actors representing environmental interests like environmental organizations and the Socialist Left Party that controlled the Ministry of Environment from 2005 until 2013, and actors representing agricultural interests like agricultural organizations and the Centre Party that controlled the Ministry of Food and Agriculture from 2005 until 2013. This lack of consensus illustrates that consumption and production of meat is a politically and economically complex field, also within the government.

Before the policy implications of this lack of consensus is discussed, it is necessary to clarify what focus has been given to the consumers in the public debate. The review of the prevailing perceptions of the nature of environmental sustainable meat consumption does not only illustrate the lack of consensus on what causes the problem but also suggest that the solutions proposed are diverging.

**Table 1** Diverging positions on essential questions in the debate on sustainable meat consumption

|                           | Environmental position   | Agricultural position  |
|---------------------------|--|--|
| Red meat                  | Production of red meat is energy intensive and the greenhouse-gas emissions (especially methane) are high. In addition to this, Norwegian ruminants are also dependent on concentrates   | It is important to make use of the large grazing resources in Norway which otherwise would not have been used by humans                      |
| White meat                | The grain surplus is better used to feed pork <sup>a</sup> and poultry. If we would have used the same areas to produce grass for grazing animals the food production would decrease and the greenhouse-gas emissions would increase | Pork and poultry is dependent on imported concentrates which is not sustainable considering the global food- and climate crisis <sup>b</sup> |
| Short-travelled food      | It is more important to consider what we eat than how far the food has been travelling   | Long-travelled food often contains additives, is not produced according to what is ecologically sound and involves large transport emissions |
| International food crisis | We need to reduce our meat consumption because meat production confiscates large land resources that could have been better exploited  | In order to take our share of the responsibility for the global food security we need to produce more meat                                   |

<sup>a</sup> Whether pork should be classified as red or white meat is an on-going discussion. In Norway the official dietary advice changed the classification of pork from white to red meat in 2011. In this article, the old classification of pork is used as the data used in this article is from 2000 until the end of 2010, when pork still was categorized as white meat. In the literature on the GHG emissions associated with different meat types, pork is also often classified closer to poultry than to ruminants

<sup>b</sup> Obviously, this argument is not raised by pork and poultry farmers and producers

## How Much, and What Focus Is Given to the Role of the Consumers in the Debate?

The quantitative results from the analysis tell us that of a total of 231 articles in the five newspapers, seventy-seven articles (33%) are directed towards consumers as the responsible actors. Seventy-two articles (31%) directed the main responsibility towards the government. Seventeen of the articles (7%) are categorized as directing the responsibility both towards the government and the consumers, while only six articles (3%) are directed towards private corporations and businesses as the responsible actors. Fifty-nine articles (26%) are categorized as “not relevant” since they do not direct the responsibility toward any actor in particular. In the following section, the role ascribed to the consumers from the three most active groups of actors in the debate is presented: environmental organizations, academia and government representatives and politicians.

### Environmental Organizations

As the most active actors in the debate, the environmental organizations are natural agenda setters. As already mentioned, the two environmental organizations that are most active in the debate are organizations that direct its attention towards consumers and consumption in particular. Organizations like Friends of the Earth Norway and WWF, who are active participants in the public environmental debate in general, have not contributed significantly to the debate on environmentally sustainable meat consumption. The single most active environmental

organization in the debate was the Future in Our Hands, and two representatives from the organization stood out as the main spokespersons. Their view was portrayed through journalist written articles and through own contributions in the debate section of the selected newspapers. In addition to emphasizing that the government holds the main responsibility for the environmental problems, the environmental organizations participating in the debate gave much attention to the role of the consumers and to informing the consumers about the environmental consequences of their actions. Nine per cent of the selected articles were characterized under the theme eco-friendly lifestyle and portrayed persons or families who had chosen to live as environmentally friendly as possible. These kinds of articles are intended to teach the consumer that it is not necessarily very hard to adapt an environmentally friendly lifestyle. The main message to the consumer is to consume less in general and to eat less meat in particular. We find article titles aimed at the consumers' conscience, such as "How you can save the environment" (Dagbladet 2008), "Green living tips" (Kvaale 2007), "Save the environment with a meat-free Monday" (Johnsrud 2010), and "Vegetarian food is best for the environment" (Diesen 2005). Other article titles reveal an increased attention to the subject prior to and during seasons characterized by a higher consumption level, like Christmas: "Happy eco-friendly Christmas" (Møller 2009), "Encourages green thinking during Christmas" (Dagsavisen 2009), and at specific life events like weddings: "Wedding with a clear conscience" (Ommundsen 2010).

### Academia

Representatives from academia present a much more diverse picture than the environmental organizations in the debate and they generally place the responsibility on the government. They argue that the consumers can do much, but that nothing can be done without facilitation from the government, here exemplified by a quote from the then director of the Center for International Climate and Environmental Research: "It is of course important that people express their climate commitment through their own consumption, but it is the large collective efforts that will have a significant effect in order to achieve the necessary cuts in Norwegian emissions" (Thomassen 2007). Despite this general message, researchers also direct their message toward the consumers: "It is impossible to solve the climate problems unless the consumers do their part of the job. We cannot wait for Statoil and Hydro [oil companies] to clean up...if you eat less meat you help reducing the emissions of GHGs" (Holden in Nielsen 2002).

### Government Representatives and Politicians

Representatives from the government and politicians, in general, place the responsibility on the government when they are portrayed in the media, either through articles or through their own contributions in the newspapers' debate sections. One argument often repeated in the media by the Minister of Environment at that time, representing the Socialist Left Party, was that "it is always better if you drive a SUV to the polling station and vote for an environmental party than if you ride your bike and vote for the Progress Party"<sup>7</sup> (Solheim in Eikum 2009). Related to the financial crisis in 2008 and COP 14<sup>8</sup> in Poznan, Solheim stated that "the crisis can save the world" because it led to a lower consumption level than prior to the crisis (Kvaale 2008). Among other things, he argued that we would need to reduce our level of meat consumption, but he would not comment on which concrete

<sup>7</sup> Norwegian right wing party.

<sup>8</sup> The United Nations Climate Change Conference, Conference of the Parties (COP).

political measures that needed to be introduced. This story is typical of how the government politicians speak out in the public debate on sustainable meat consumption in the articles analysed—vague and with few references to political tools that could help reducing the environmental sustainability problems. A more concrete statement came from the Minister of Agriculture and Food in 2009, Lars Peder Brekk who represents the Centre Party, when he encouraged retailers to expand the product range by offering an organic version of roasted pork belly, a popular Norwegian Christmas dish. On a question about what he did to stimulate organic agriculture, he answered that this was done through measures in the agricultural agreement, but that he would mainly like to challenge the retailers to increase the focus on organic products and to sell them at the correct price (Aftret 2009). Even though the government politicians to some extent are active participants in the public debate, they do not present many concrete measures to stimulate environmentally sustainable meat consumption. They do, however, contribute by informing the consumers about what they think environmentally sustainable consumption of meat involves.

### Allocation of Responsibility

The media analysis shows that much of the responsibility for environmentally sustainable meat consumption is given to the consumers as well as the government. The proposed solutions from the environmental organizations include traditional forms of economic regulation through taxes and increased meat prices. A great deal of their critique has been directed towards the existing governmental subsidies to the meat industry through support to meat promotion campaigns and the information office for egg and meat (e.g., Hermstad 2009). On the other hand, the data show that the environmental organizations and the politicians, as well as the other active actors in the public debate, address the consumers in order to inform them about how they can improve the environmental sustainability of their own consumption practices. We have seen that the different actors in the public debate propose different solutions to the problem, but that a common feature is that the solutions make the consumers accountable. However, the proposed solutions do not always give the consumers a consistent picture of which solution that it best. One proposed solution is to eat less meat. This can be combined with other proposed solutions like eating more organically produced or locally produced food, but it directly opposes the proposed solution of eating more locally produced meat. It thus becomes a normative project of trying to convince the consumers to consume in more environmentally friendly ways, and it is evident that the main opponents in the public debate have diverging perceptions of what constitutes the most environmentally sustainable consumption practices.

### Implications for Sustainability Policies

The data material used in this study is articles and posts in the public debate on consumption, meat, and environment. The selected material is therefore biased towards the part of the sustainability debate that has involved consumption and consumers and that has focussed on environmental sustainability. The findings show that that environmentally sustainable consumption of meat has been given less attention in the public debate than other areas of consumption like housing and transport. The most important finding of the study—that there is a lack of consensus on the basic question in the debate, namely what constitutes *environmentally sustainable consumption of meat*—also indicates that there has been little focus on discussing solutions to the environmental sustainability issues connected to both



meat production and meat consumption in the Norwegian public debate. The proposed regulatory measures can be divided into two categories. The first one is the traditional economic regulatory measures, like increased taxation on the production and the consumption of meat as well as economic stimulus of organic farming and local food production. The most prominent measure initiated by the government is the target of increasing the national organic production and consumption to 15% of the total agricultural production and consumption by 2020 (Ministry of Food and Agriculture 2009). The second category comprise of information campaigns intended to spur self-regulatory voluntary measures taken by consumers, like eating less meat and eating more locally produced and organically produced food. In addition to being targeted by direct attention given to the consumers' role in the public debate, the consumers are being targeted through government supported information campaigns. Both campaigns that promote *increased* consumption of meat (e.g., by the information office for egg and meat) and campaigns that promotes *decreased* consumption of meat (e.g., by environmental organizations like the GAP Norway and FIOH). This focus on information campaigns and voluntary measures, combined with the prominent role given to the consumers as responsible actors, indicates that environmentally sustainable consumption of meat is mainly a subject for self-regulation rather than traditional regulation. The consumer is to be convinced by solid arguments and shaped to take on the necessary responsibility. One of the main obstacles for the consumers to take this responsibility, as is identified in this article, is the lack of consensus on the character of the problem among the actors in the debate. Especially significant for the sustainability policies are the lack of consensus among the governmental actors in the debate.

There are several aspects and arguments that can be considered in the debate on environmentally sustainable meat consumption, and which practices that are characterized as sustainable seem to be predetermined partly by the economic interests of the actors describing it. In order to understand the Norwegian debate on sustainable consumption of meat, it is thus necessary to consider the existing regulatory schemes. The Norwegian meat sector is characterized by regulation, which is aimed at several aspects like health risks, nutrition, and quality as well as protective measures. Import of meat is strictly regulated by international agreements, mainly through the WTO agreement and the EEA agreement.<sup>9</sup> Consisting of a combination of quota regulations and custom tariffs, they are designed to protect the Norwegian market while at the same time opening for regulated export of surplus and import if there is a lack of meat in Norway. These regulations contribute to make the amount of imported meat very limited on the Norwegian market (Kjærnes et al. 2010). The protective measures are supported by national agricultural subsidies, which stimulate Norwegian agricultural production. Two organizations have the right to participate in the annual negotiations with the government on subsidies, prices, etc. which usually results in an agricultural agreement (Rustad 2004).<sup>10</sup> As illuminated in the analysis of the public debate, these organizations are among the ones promoting the environmental sustainability of meat consumption and the need for increased production of meat in Norway.

In spite of the fact that environmental considerations and climate change have been important issues on the public agenda throughout the time period studied, there have been few governmental initiatives to make the consumption of meat more environmentally sustainable. A possible reason, at least an amplifier, of this limited commitment is that the two political parties with significant interest in these issues are opponents in the environmental sustainability debate on meat and disagrees on the character of the problem.

<sup>9</sup> The Agreement on the European Economic Area (EEA).

<sup>10</sup> These organizations are the Farmers Union (NFU) and Norwegian Farmers and Smallholder Union (NBS).

This functions as an effective barrier for a common and strong policy on the area of environmentally sustainable meat consumption. Since the Socialist Left Party held the Ministry of Environment and the Centre Party held the Ministry of Food and Agriculture for a significant part of the time period studied, it is clear that it would have been hard for the government to agree on a common strong policy on the area of environmentally sustainable meat consumption. However, since both parties and ministries hold strong interests in the field of meat production and consumption, they attempted to influence the public's perception of the sustainability of meat consumption using their own channels of influence (e.g., through financial support to interest organizations and information campaigns directed towards the consumers). As a news commentator in *Dagens Næringsliv* wrote in 2009 (Alstadheim 2009), meat and climate change are a political minefield for the government: "The farmers will react if the foods they produce are labelled as bad for the climate, while the consumers may react if the government takes the steak away from them." The politicization of the debate became even more evident when the then leader of the Centre Party in 2007, Åslaug Haga, claimed in a radio interview that people should eat less red meat because of the interests of the global climate. Shortly thereafter, after many protests from cattle and sheep farmers, she reversed her position and argued that she had meant to say that white meat is worse in an environmental perspective (Alstadheim 2009). This example illustrates that both the political game as well as economic interests are of great importance for what position the actors take in the debate on environmentally sustainable meat consumption and that the question of the environmental sustainability of meat consumption are complex. One consequence of the politicization of the issue is that the government lacks the necessary political power and has to settle for a vague policy on the environmental sustainability of meat production and consumption. The internal disagreement within the government forces them to outsource policies and responsibilities to non-governmental organizations (NGOs) and consumers. Outsourcing of responsibility for sustainable consumption to non-governmental actors has been identified in several other Western countries through other studies (e.g., Berg 2011). As noted by Berg (2011, p. 20), "the characteristic of such policy outsourcing include a clear disparity in the challenges taken up and the means provided to act on these challenges." This is characterizing also for the situation of environmentally sustainable meat consumption in Norway, as the sustainability approach highlights the role of responsible consumers and the means that are used to support them are diverging information about which strategies that are actually the best for the environment. This lack of consistent information may result in producing consumer confusion and inertia rather than spurring a feeling of responsibility for environmentally sustainable meat consumption among consumers.

### What Can Consumer Policy Do?

An important goal for consumer policy is to empower consumers to make informed choices in the market. The central findings presented in this article are that consumers have been given a great deal of the responsibility for environmental sustainability of meat consumption, but that the consumers face a significant barrier of discursive confusion about what *is* actually most environmentally sustainable regarding meat consumption. The most important thing the government and other actors present in the debate can do is thus to act together as one unit, rather than to promote and support different stories about the environmental sustainability of meat consumption. This would send a stronger signal of commitment to the goal of sustainable development, of which the effectiveness of moral

suasion is dependent upon. An agreement on the character of the problem might as well enable the government to influence other external constraints on consumer choices, like the cost of sustainable choices in terms of money, time and effort compared to the non-sustainable choices. The consumer policy can, through designing external conditions, facilitate changes towards more environmentally sustainable consumption patterns (Thøgersen 2005). On another note, some have even raised the question of whether the increased meat consumption is at all demand based. It has been argued that rising consumption is in fact supply driven, and as such the supply side is the one who should be controlled (Rivera-Ferre 2009). This can be done by employing more traditional consumer policy instruments through legal restrictions and voluntary agreements with the industry. The findings of this study also reveal that the press coverage of environmentally sustainable meat consumption has been fairly low compared to other product groups. As the salience of environmental problems depends on media coverage of the issue (e.g., Ader 1995), this indicates that it is possible to influence consumer attention towards environmental issues by means of mass communication (Thøgersen 2005). Thus, there is reason to believe that there is an untapped potential in consumer information and education as consumer policy tools in the field of environmentally sustainable meat consumption.

However, the barriers and constraints identified in previous research, as well as in this article, clearly demonstrate that the need for empowerment is not limited to being able to make informed choices. Creating better opportunities and strengthening the consumers' abilities are necessary but not sufficient means in order to get the consumers to *take* responsibility. According to psychological motivational theory (Ryan and Deci 2000), the essence of making effective changes is that new practices must be to some degree congruent with the rest of the behaviour of the consumer. Thus, the meat-free alternatives should match the practices and motives of the persons that may be ready to adopt such a practice. Finding these matches is thus an important next step in order to develop an efficient consumer policy for sustainable consumption. That is, however, beyond the scope of this article.

## Conclusion

In this article the focus has been directed towards how environmentally sustainable consumption of meat has been discussed in Norwegian press and policy documents between 2000 and 2010, which role has been ascribed to the consumers as responsible actors and what have been presented as unsolved problems and dilemmas related to environmentally sustainable meat consumption. A central finding is that consumers have been given a great deal of the responsibility for environmentally sustainable consumption of meat throughout the time period studied. This reflects a general trend of ascribing more regulatory responsibility to non-governmental actors such as consumers.

However, it is argued in this article that the outsourcing of responsibility to the consumers might as well be a consequence of the lack of consensus among actors in the debate as well as policy makers on the character of the problem. Thus, that the limited engagement related to environmentally sustainable meat consumption, both at the political level and from consumers, can partly be attributed to a discursive confusion that arises from the simultaneous existence of mainly two clashing discourses around what constitutes environmentally sustainable consumption of meat in Norway. The environmental branch focusses on the environmentally malign aspects of production and consumption of red meat and argues that the most environmentally sustainable alternative is to consume less meat. White meat is presented as a better alternative than red meat. On the other hand, the

agricultural branch focusses on the environmentally benign aspects of production and consumption of red meat by arguing that we are making use of large grazing resources in the production of red meat, and that this is better than to use imported concentrates for pork and poultry. Local, organically produced and short-travelled meat is presented as the sustainable alternatives. The presence of these clashing discourses might have reduced the decision-makers' leeway, which again might have resulted in the outsourcing of the responsibility for regulating environmentally unsustainable consumption patterns to the consumers and NGOs. Both the political game and economic interests are important for which position the actors take in the debate. However, the presence of these clashing discourses also influences the ability of the consumers to take this responsibility, as the analysis of the public debate reveals that there is a lack of consistent information about the character of the problem and thus on potential *solutions* to the problem.

Overall, this article contributes to the literature on consumer policy studies by elaborating on the complexity of sustainable consumption related information and the political power struggles that are evident when discussing and defining environmentally sustainable consumption. As an important goal for consumer policy is to empower consumers to make informed choices in the market, the major challenge that results for consumer policy from the presence of the two clashing discourses is the inability of giving consistent information about the character of the problem. Appropriate knowledge is a prerequisite for environmentally conscious action, and studies have found that lack of knowledge about a specific environmental issue reduces the likelihood of the person actually doing something about the problem (e.g., Thøgersen 2000). The lack of agreement on the character of the problem among the political parties that governed together for a significant amount of the time period studied (2005–2010) might also have represented a challenge for the use of other strategies like supporting green consumption with economic instruments, developing infrastructure for more environmentally sustainable lifestyles, and regulating the supply side through legal restrictions and voluntary agreements with the industry. However, the findings of this study indicate that directing the responsibility towards individual consumers do not seem to be a sufficiently effective measure in order to promote environmentally sustainable meat consumption. At least not when there is a lack of consistent information about the character of the problem.

Future research should therefore focus more on the effectiveness of self-regulation and under which conditions the strategy of giving regulatory responsibility to non-governmental actors like consumers might be effective. Several studies have found that information alone is not a sufficient condition for spurring environmentally friendly behaviour, so it is worth asking whether the Norwegian situation would have been different if there had been a consensus among the central actors regarding the character of the problem. However, the lack of a consistent message about environmentally sustainable meat consumption in the Norwegian public debate might represent a problem for consumers that *are ready* to take action through their own consumption as they lack clear action alternatives. In the future, both environmental and consumer policy should take this lack of consensus into consideration when designing solutions to potentially controversial environmental problems where consumers are given an important share of the responsibility.

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## Appendix

**Table 2** Food supply quantity in Norway (kg/capita/year)

|                      | 1989 | 1999 | 2009 |
|----------------------|------|------|------|
| Bovine meat          | 18.5 | 20.4 | 19.5 |
| Mutton and goat meat | 5.4  | 5.2  | 5.3  |
| Pig meat             | 19.0 | 22.0 | 22.9 |
| Poultry meat         | 4.8  | 8.7  | 17.0 |
| Meat, other          | 1.8  | 1.4  | 1.3  |
| Total                | 49.5 | 57.7 | 66.0 |

Source: FAOSTAT 2013

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