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“Planting Trees is Always Good”

– A WPR-analysis of Swedish carbon offsetting initiatives through tree planting projects in the Global South

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Abstract

This thesis explores how two Swedish companies and a sample of Swedish consumers describe the role of private actors in climate change mitigation. Carbon offsetting by planting trees in the Global South has become a common approach for Swedish food and beverage companies (among other companies) that seek to reduce their climate impact. Since 2018, the Swedish fast food restaurant Max Burgers AB (MAX) has been offsetting 110% of its greenhouse gas emissions and advertises a 'climate positive' menu. The initiative has been prized by the UN Global Climate Action Awards for being an innovative, replicable and scalable climate solution. MAX is also urging other companies and private individuals to implement the 'climate positive' model, in order to solve the climate crisis. This thesis draws on Carol Bacchi's WPR approach for policy analysis to explore how the proposed solution can be understood in terms of problem representations. Two Swedish companies' websites were analysed and semi-structured interviews with 13 customers at MAX were conducted in order to understand what kinds of problems carbon offsetting by planting trees in countries in the Global South responds to according to these actors. The thesis presents four problem-solution complexes in which the two companies mainly represent climate change as a problem of 1) reduced emissions and carbon dioxide removal, 2) consumption, 3) deforestation and carbon sequestration and 4) where carbon offsetting also is represented as a solution to sustainable development challenges in the Global South. The study concludes that on the two companies' websites, these four problem representations reinforced each other and created a strong narrative for practicing carbon offsetting by planting trees in countries in the Global South as a solution to climate change and sustainable development challenges. At the same time, the customers' responses imply that the discourse on how private actors and individuals can mitigate climate change is not homogenous, as they partially contrasted the two companies' problem representations of climate change. The customers' responses also illustrated a mental distance to the tree planting project in Uganda that MAX purchases carbon credits from, as well as a lack of awareness regarding local impacts of the project. Moreover, this thesis illustrates how planting trees has enabled MAX to communicate to its customers that they are the ones that will solve climate change, by eating burgers at the Swedish fast food restaurant.

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Uppsala, September 2020
Emil Planting Mollaoglu

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Abbreviations and acronyms

AC	Anonymous customer
CDM	Clean Development Mechanism
CDR	Carbon Dioxide Removal
CO_2	Carbon dioxide
DG CLIMA	The Commission's Directorate-General for Climate Action
GHGs	Greenhouse gases
GN	Global North
GS	Global South
IGO	Intergovernmental organisation
IPCC	Intergovernmental Panel on Climate Change
MAX	Max Burgers AB
SDGs	Sustainable Development Goals
SEA	Swedish Energy Agency
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
VCM	Voluntary Carbon Market
WCED	World Commission on Environment and Development
WPR	What's the Problem Represented to be?

1 Introduction

In September 2015, the Member States of the United Nations (UN) adopted the 2030 Agenda for Sustainable Development, along with the 17 Sustainable Development Goals (the SDGs) (UN 2015a, UN n.d.). Agenda 2030 is a global action-plan that seeks to balance the economic, social and environmental aspects of sustainable development through the SDGs (UN 2015a: 1). Although the goals are inseparable and highly interconnected (ibid.), SDG 13 is especially relevant to the topic of this thesis, as it commits the Member States to "Take urgent action to combat climate change and its impacts" (UN 2015a: 14).

SDG 13 also specifies that the United Nations Framework Convention on Climate Change (UNFCCC) is the main stage for negotiating the course of global climate action (ibid.). In December 2015, the Parties to the UNFCCC reached the Paris Agreement, which determined that the increase in global average temperatures should be kept well below 2 degrees Celsius, and that efforts should be made to limit the temperature increase to 1.5 degrees Celsius, compared with pre-industrial levels in order to "[…] significantly reduce the risks and impacts of climate change" (UN 2015b: 3).

In addition to setting temperature targets, the Paris Agreement affirmed that climate action should be grounded in "[…] sustainable development and efforts to eradicate poverty" (UN 2015b: 3) and guided by "[…] the principle of equity and common but differentiated responsibilities and respective capabilities" (CBDR&RD) (UN 2015b: 1). In accordance with this principle, it was agreed that 'developed country Parties' should take the lead in the response to climate change by i.a. 1) committing to absolute and economy-wide emission reduction targets that reflect the "highest possible ambition" and 2) working towards sustainable lifestyles and patterns of production and consumption (UN 2015b: 2, 4).

Although the Paris Agreement was reached by states, scholars within the fields of environmental science and policy have argued that private actors will perform a lot of the climate change mitigation[1] that lies ahead (Jordan et al. 2018: 8p). It has also been suggested that non-state actors can achieve better results than governments when it comes to making emissions reductions that are in line with the climate goals (Li et al. 2020: 400). These propositions are supported by references to the many

[1] Climate change mitigation is defined by the IPCC (2014) as: "[…] a human intervention to reduce the sources or enhance the sinks of greenhouse gases."

private climate change governance initiatives, such as protocols and standards, that enable non-state and private actors to report and trade with GHG emissions, or to set their own emissions reductions targets (Jordan et al. 2018: 8p, Li et al. 2020: 400). It has also been argued that the role that non-state actors play in climate change mitigation was enhanced by the Paris Agreement (Green 2017: 104, Jordan et al. 2018: 9).

Among companies engaged in climate action, some are compelled by binding policies and regulations (Li et al. 2020: 400). Others have chosen to engage in private initiatives formed by e.g. trade associations, or through partnerships between companies and other non-state actors, and many businesses tend to make voluntary commitments to disclose or reduce their climate impact (Jordan et al. 2018: 8). Because it currently takes place at many different levels, and between different types of governance regimes, climate governance is increasingly regarded by scholars as a 'regime complex' – which contrasts the more traditional idea of a 'single climate regime' governed by the UNFCCC and its Member States (Jordan et al. 2018: 7). In this context, a regime can be defined as "[…] the system of norms and rules introduced to climate governance […]" (Lang et al. 2019: 415). Under the Paris Agreement, the importance of the voluntary and market-based governance initiatives is expected to increase (Andonova and Sun 2019: 99) and the borders between private and public regulation to continue to 'blur' (Green 2017: 104).

In recent years, there are several Swedish companies that have made voluntary commitments to reduce their climate impact. An approach adopted by some Swedish food and beverage companies (among other companies) in order to succeed in this regard is to offset their GHG emissions. This practice is commonly called 'carbon offsetting' and (simply put) means that GHG emissions that occur in one place are 'compensated' for by emission reductions made somewhere else (Bumpus and Liverman 2008: 131, Lovell and Liverman 2010: 255, Andonova and Sun 2019: 101). This is typically done through projects that produce carbon credits, either by capturing carbon dioxide from the atmosphere or by preventing emissions to reach the atmosphere in the first place (Lovell et al. 2009: 2357). The carbon credits are then sold on carbon offsetting markets, as a way for actors that buy the credits to compensate for their emissions.

Examples of Swedish companies that have adopted carbon offsetting as a part of their climate policy include the food company Risenta[2], the coffee brand Arvid Nordqvist[3] and the organic brand of the dairy producer Arla Foods.[4] All of these companies offset 100% of their GHG emissions through tree planting and tree preservation projects in countries in the Global South (GS) – or through a combination of tree and biogas projects in the GS, as in the case of Arla Foods.

However, there is one Swedish company that has taken carbon offsetting a step further than the others. The fast food chain Max Burgers (henceforth MAX), has been carbon offsetting 100% of its emissions by planting trees since 2008, but since 2018, the company offsets 110% of its GHG emissions throughout the value chain through a Plan Vivo certified tree planting project in Uganda. MAX calls this approach 'climate positive' – since the carbon offsetting goes beyond the company's own GHG emissions, and therefore captures an extra 10% of carbon dioxide (CO_2) from the atmosphere (MAX 2018a).

The Swedish restaurant chain has been championed by the UNFCCC (2020b) for introducing the "world's first 'climate positive' menu" and in 2019 the company was one of fifteen recipients of the UN Global Climate Action Awards, which was presented at COP25 in Madrid (UNFCCC 2019a). The UNFCCC described the award-winners as "[…] some of the most practical, scalable and replicable examples of what people across the globe are doing to tackle climate change". Their climate actions were described as "[…] some of the most impressive climate solutions worldwide." (ibid.) and the announcement of the laureates was put in the context of the implementation of both the Paris Agreement and the SDGs (UNFCCC 2019b). MAX was also awarded with the Environmental Strategy Award[5] in Sweden in 2019 for its "[…] pioneering work in becoming climate positive and the work of inspiring others to do the same." (Ekman 2019, my translation). The other company studied in this thesis is called ZeroMission AB (henceforth ZeroMission). ZeroMission is an intermediary company that help businesses with climate strategies, climate calculations and carbon offsetting (ZeroMission 2020a) and it is through ZeroMission that MAX orders its carbon offsetting (MAX 2018c).

[2] https://www.risenta.se/klimatkompenserad
[3] https://www.arvidnordquist.se/kaffe/hallbarhet/100-klimatkompenserat/
[4] https://www.arla.se/om-arla/vart-ansvar/ekologiskt/netto-noll-klimatavtryck/
[5] "Miljöstrategipriset" in Swedish. My translation from Swedish to English.

Carbon offsetting is a market-based policy response to climate change that has received a great deal of attention among scholars in a variety of fields over the past 20 years. This thesis contributes to the body of literature on carbon offsetting through tree planting projects in the GS specifically. While many previous studies have looked at the reasoning, actions and local effects in the GS of carbon offsetting through tree planting initiatives by state and non-state actors (e.g. Blum 2020, Boyd 2009, Edstedt and Carton 2018, Kiyingi et al. 2016, Twyman et al. 2015), few studies have looked at how private sector offsetting is promoted by businesses and viewed by consumers in the GN. This study contributes to filling this research gap as it explores how planting trees in the GS is promoted on MAX and ZeroMission's website and how this approach is regarded by MAX's own customers.

This thesis explores how carbon offsetting is packaged and presented through initiatives on the growing climate change mitigation market – and how these initiatives represent climate change as a certain type of problem in need of a specific solution. Portrayals of the actors involved in the solution and the narratives that are 'left out' from the communication of the approach are also explored. Swedish consumers' perspectives on both their own and MAX's role in climate change mitigation are also presented.

The thesis is thus placed in a context of Swedish companies that voluntarily practice carbon offsetting by planting trees in countries in the GS. Narratives and arguments of three sets of actors are explored: 1) MAX – a Swedish fast food restaurant chain with the world's first 'climate positive' menu, 2) ZeroMission – an intermediary company that provides MAX and other Swedish companies, organisations and individuals with carbon offsetting solutions and 3) MAX's customers – who become engaged in the process of carbon offsetting when buying food at the restaurant. The quote in the title of the thesis comes from one of the customers I interviewed, who said that although he did not really understand the connection between the Swedish hamburger restaurant and a tree planting project in Uganda, "*planting trees is always good*".

The objective of this thesis and the research questions that I seek to answer are presented below.

2 Aim and research questions

The objective of this case study is to explore how two Swedish companies promote carbon offsetting through tree planting projects in countries in the GS, as a global climate action for other actors to replicate, and how this is viewed by consumers in the GN.

The research questions that this thesis seek to answer are inspired by Carol Bacchi's (2009) policy analysis approach called 'What's the Problem Represented to be?' (the WPR approach). The main research question is:

- What type of problem(s) is carbon offsetting by planting trees in countries in the GS presented as a solution to, by companies and consumers respectively?

I also seek to answer the following sub-questions:

- On what grounds do the three actors build arguments for or against carbon offsetting by planting trees in the GS?
- Where are the 'silences' in the communication of carbon offsetting by planting trees in the GS?
- How can the problem representation(s) articulated by the three sets of actors be understood in terms of their impacts?

Through the background and literature review that follows below, I describe carbon offsetting in a wider context. I start by outlining the origins of carbon markets, focusing on its two main forms.

3 Background and literature review

3.1 Carbon offsetting – the markets and their origins

As mentioned in the introduction, carbon offsetting allows a range of actors (such as individuals, companies, organisations, and states) to 'compensate' for the GHG emissions they generate. This is typically done by paying for emissions reductions that were made somewhere else (Bumpus and Liverman 2008: 128, 131, Andonova and Sun 2019: 101) or by paying somebody to capture carbon dioxide (Kollmuss et al. 2008: 1). The whole concept of carbon offsetting builds on thinking of climate change as a 'non-localised problem' (ibid.) – the underlying logic being that the GHGs that cause global average temperatures to increase are "[…] spread evenly throughout the atmosphere, so reducing them anywhere contributes to overall climate protection." (ibid.). The way that this works in practice is typically through trading of 'carbon credits' on 'carbon markets' (Lovell and Liverman 2010). Since carbon markets emerged in the 1990s, they have become some of the most common types of policies for climate change mitigation around the world (Paterson and Stripple 2012: 564, Stephan and Paterson 2012: 545p).

On an intergovernmental level, new marked-based policies for emissions reductions were established under the UN system through the adoption of the Kyoto Protocol in 1997. The Kyoto Protocol introduced so-called 'flexibility mechanisms' that had the overall purpose of lowering the costs of emissions reductions through market principles (IPCC 2007a). One of the mechanisms, called the Clean Development Mechanism (CDM), was designed to combine cost-effective emissions reductions for countries in the Global North (GN) with sustainable development assistance for countries in the GS (Drupp 2011: 1213). This multiple purpose of the CDM is expressed in Article 12 of the Kyoto Protocol (UN 1998: 11) and illustrates how carbon offsetting markets have been designed by policymakers to solve a combination of problems – such as cost-effective climate change mitigation with sustainable development objectives – through market-based tools.

In broad terms, there are two types of global carbon offsetting markets – the 'compliance markets' and the 'voluntary markets' (Lovell 2010: 354). The CDM market that was set up under the Kyoto Protocol is one of the compliance markets (Lovell 2010: 353) and it was established in order to help states *comply* with their emission targets (Green 2017: 104) by allowing Annex I countries[6] to offset

[6]Annex I countries include "all the OECD countries and economies in transition. […] Annex I countries committed themselves specifically to the aim of returning individually or jointly to their 1990 levels of greenhouse-gas emissions by the year 2000." (IPCC 2007b)

some of their required emissions reductions through projects in countries in the GS (Andonova and Sun 2019: 101). The CDM is regarded as the "main public offset market" (Green 2017: 104) and is also the largest carbon offsetting market in the world (Schneider and La Hoz Theur 2017: 1).

The other type of market – the voluntary offsetting market – has developed in parallel with the compliance markets (Andonova and Sun 2019: 101, Bumpus and Liverman 2008: 128, Lovell and Liverman 2010: 257). It is through this type of market that MAX purchases carbon offsetting. Like the compliance market, the voluntary market also emerged in the 1990s, but it was created by NGOs and private companies instead of by the UN (Howard et al. 2015: 344). As the name suggests, the voluntary market was established in order for companies, organisations and private individuals to be able to compensate their carbon footprint *voluntarily*, as they did not have to comply with binding climate regulations (Bumpus and Liverman 2008: 132).

Although these two main types of carbon offsetting markets usually are distinguished from each other, it should also be mentioned that they in many ways are interconnected. Lovell (2010: 353p) underlines that even if it can be useful to separate the compliance markets from the voluntary markets because they are governed differently from each other, they also have a number of similarities in that: "[…] they co-evolved from a common base in the early 1990s; a growing number of carbon offset organizations produce and retail both types of offset; and credits from 'failed' or delayed compliance offset projects are commonly sold in the voluntary market". Green (2017: 104) has also highlighted that even though these two markets traditionally are divided, "[…] the lines between public and private carbon markets are gradually eroding" – a trend which has accelerated in the wake of the Paris Agreement (ibid.). Michaelowa et al. (2019: 4) strengthens this image by making a distinction between the initial (intended) purpose of the CDM, which was to: "[…] support governments significantly reduce the cost of compliance with the [Kyoto Protocol]", and the (unexpected) practical outcome, which was that the CDM market essentially was privatised – meaning that both the CDM compliance market and the voluntary markets have significant private elements. In addition, Andanova and Sun (2019: 106) argue that there is an interdependence between the two markets in that many of the voluntary standards have tried to mirror the CDM regulations, as a way of enhancing their own legitimacy. Also – the other way around – the voluntary standards have tried to impact the CDM markets with an enhanced focus on sustainable development benefits (ibid.).

Gazing forward – from the 'Kyoto regime' to the 'Paris regime' – Lang et al. (2019: 415) argue that both the CDM and the voluntary markets are facing significant uncertainties due to the shift of regime, because even if the CDM and the voluntary markets can be separated from each other in theory, the voluntary markets are still entangled with the Kyoto regime in practice. For example, as mentioned above, there are similarities between how the two types of markets function and actors in carbon offsetting projects can be active on both types of markets simultaneously (ibid.). The similarities and overlaps have also allowed for actors to switch from selling carbon credits on the CDM market, in hopes of getting better prices for the same product on the voluntary markets (ibid.). With the implementation of the Paris Agreement, more countries than before are supposed to set targets for emissions reductions, which could make it more difficult to provide carbon credits to the voluntary markets (ibid.). Therefore, although the voluntary markets are not directly tied to either the Kyoto Protocol or to the Paris agreement, Lang et al. (2019) argue that: "the VCM [i.e. the voluntary carbon offset market] will have to change in order to survive" (Lang et al. 2019: 415, my edit in brackets).

Keeping in mind that there are both similarities and disparities between the different types of carbon offsetting markets, in the section below I first describe some of the previously studied attributes that are of general interest for understanding some of the debates surrounding carbon offsetting. I then outline some more specific topics that are relevant for the particular type of carbon offsetting that MAX and the intermediary company ZeroMission promote.

3.2 Carbon offsetting – the projects and the debates

There are many kinds of carbon offsetting projects that build on different techniques for creating carbon credits (Lovell and Liverman 2010: 258). According to Bumpus and Liverman (2008: 128), the most common types of projects on the voluntary markets and under the CDM include renewable energy (e.g. switching from carbon-based energy sources to hydro, wind or solar power), methane capture (e.g. capturing gas from landfills and agricultural waste), energy efficiency (e.g. in households, industries and power plants), fuel switch (e.g. switching from oil or coal to natural gas or biofuel), industrial gas reduction (e.g. reducing and destroying GHGs) and forestry (e.g. afforestation and reforestation).

Although there are differences in terms of how carbon credits are produced, there are also general issues regarding carbon offsetting mechanisms that have been debated in the literature. In a report

published by the World Wildlife Fund Germany, Kollmuss et al. (2008: 1) list seven key aspects to consider when discussing both the benefits and points of critique. According to the authors, well-functioning carbon offsetting markets should:

1. "Contribute to climate protection through real and additional, permanent, and verifiable greenhouse gas (GHG) reductions, while limiting unintended negative consequences.
2. Reduce GHG emissions in an economically efficient way.
3. Enhance the social and environmental benefits to project hosts.
4. Stimulate social and technological innovation and participation by new actors [sic.] sectors and groups.
5. Create and build constituencies for more effective and comprehensive national and international solutions.
6. Avoid perverse incentives that could stymie broader climate protection actions and policies.
7. Synergistically work with other climate protection measures." (Kollmuss et al. 2008: 1).

Several of the points listed above stem from the Kyoto Protocol and have been studied thoroughly since they were introduced. For instance, the essence of the first point (the criteria for real, additional, permanent and verifiable emissions reductions) is defined in similar language under Article 12 of the Kyoto Protocol – the same article that established the CDM. Moreover, I consider points three and four on the list to be paraphrases for issues related to sustainable development. A sustainable development criterion was also defined in Article 12 of the Kyoto Protocol (UN 1998: 12) and has likewise been discussed in detail since carbon offsetting projects emerged.

In this thesis, I focus mainly on the literature related to criteria for additionality, permanence, and sustainable development, since these themes are most relevant in relation to the empirical material (see section '6 Results'). The debate about the pros and cons of carbon offsetting has been characterised by strong contestation (Lovell and Liverman 2010: 255). Moving forward, it is therefore good to keep in mind that specific outcomes can differ depending on the 'socioeconomic contexts' that projects take place in (Carton and Andersson 2017: 832).

3.2.1 Additionality

The criterion for 'additionality' became one of the most hotly debated topics in the literature on carbon offsetting in the late 1990s and it has remained contested throughout the 2000s (Michaelowa et al. 2019: 3, 7, 16). The additionality criterion was defined by the Kyoto Protocol as: "Reductions in emissions that are additional to any that would occur in the absence of the certified project activity." (UN 1998: 12). In short, it means that you have to assure that: "[…] the project would not have occurred anyway in absence of the revenue from sale of the carbon credits." (Michaelowa et al 2019: 3). In a tree planting project for instance, this means that you have to ensure that the trees that are planted would not have been planted in absence of the carbon offsetting project.

A somewhat recent example of how the additionality of the entire CDM framework has been put in question can be found in a study prepared for the European Commission's Directorate-General for Climate Action (DG CLIMA). The authors of the study analysed the overall 'environmental integrity' of the CDM framework by e.g. assessing the degree of additionality of emissions reductions within projects (Cames et al. 2016: 10). The findings indicated that 85% of the projects included in the study had a low likelihood of being additional, while only 2% of the projects were considered to have a high likelihood of additionality (Cames et al. 2016: 10). It should be added that these findings were general to CDM projects of various types and not specific to forestry projects.

Although Michaelowa et al. (2019: 16) still consider additionality to be a key issue, the authors also argue that the assessments of the CDM-projects' additionality improved substantially during the 2000s, as a response to recognising a prior lack of quality. In a study by van der Gaast et al. (2018: 46) the view that assessments of additionality have improved over time is supported – with particular emphasis on carbon forestry projects in both the compliance and the voluntary markets. The criterion for additionality is relevant to the topic of this thesis both because it is one of the most foundational prerequisites that underlie the logic of carbon offsetting, but also, because arguments for carbon offsetting by planting trees in countries in the GS (instead of in Sweden) were tied to this particular criterion by one of the actors in this thesis.

3.2.2 Permanence

The criterion for 'permanence' of GHG reductions has also been debated, not least in relation to carbon-forestry projects (Merger and Pistorius 2011: 2). In 2014, the IPCC highlighted three general risks of forest projects not fulfilling the permanence criteria, namely that: "[1] a forest protected or planted during a certain period of time may be subject to clearing during future periods; or [2] replanting of trees after a rotation period has ended is not always guaranteed. Moreover, [3] permanence of sequestered carbon in forests is challenged by the risks of natural forest disturbances (e.g. fires and insects)." (van der Gaast et al. 2018: 44, my edits in brackets). Twyman et al. (2015: 630) further strengthens this view of the permanence-related risks associated with forest projects. The authors especially underscore the uncertainties embedded in projects that essentially build on stable land-use arrangements over long periods of time (Twyman et al. 2015: 631). Nonetheless, van der Gaast et al. (2018: 46) argue that there have been significant improvements when it comes to mitigating the risks associated with the permanence of carbon-forestry projects, both on the compliance and the voluntary markets. The criterion for permanence is relevant to the topic of this thesis because it was one of the concerns brought up by a customer at MAX.

3.2.3 Sustainable development and win-win narratives

As previously mentioned, one of the defining purposes of the CDM under the Kyoto Protocol was "to assist Parties not included in Annex I in achieving sustainable development" (UN 1998: 11). Sustainable development is also one of the pillars of the Paris Agreement (UN 2015b: 3). Therefore, it is not surprising that this aspect of carbon offsetting has received a lot of attention in the literature.

The concept of sustainable development itself gained recognition and popularity during the second half of the 1980s, especially following the publication of the Brundtland Report in 1987 (Baker and McCormick 2004: 277). The IPCC (2018) still refers to this report when defining the term as: "Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987) and balances social, economic and environmental concerns." This definition is useful when thinking of what the concept entails, since it captures the intergenerational aspect of sustainable development that was emphasised in the Brundtland Report (WCED 1987: Ch. 2) as well as the social, economic and environmental dimensions that are highlighted in the 2030 Agenda (UN 2015a: 1).

The sustainable development aspects of carbon offsetting are often referred to as 'co-benefits' or 'side-benefits' and have been defined as: "[…] social and environmental benefits that go beyond the GHG reduction benefits of offset projects." (Kollmuss et al. (2008: ix). Lee et al. (2018: 236) add an economic aspect to the concept of co-benefits in forest carbon projects when arguing that 'payment for eco-system services' (PES) both can attract investments and create new avenues for income, e.g. from selling timber and other forest- or agroforestry products. Senadheera et al. (2019: 1) expands the list, and in addition to 'improving livelihoods', they add that forest carbon projects can generate ecosystem services, strengthen community involvement in natural resource governance, and reduce gender inequalities (ibid.). The authors also link the co-benefits of forest carbon projects to the implementation of the SDGs and argue that the co-benefits often are as important – if not more important – to those that buy carbon offsetting as the carbon credits themselves (ibid.).

However, several scholars have argued that the sustainable development benefits not always are fulfilled in practice (Osborne 2015: 64). Michaelowa et al. (2019: 6) points out that one of the concerns that were flagged early in the literature on carbon offsetting was that projects within the CDM framework generally had a tendency to favour emissions reductions over sustainable development contributions. Osborne (2015: 64) calls this type of trade-off between emissions reductions and sustainable development contributions 'equity-efficiency trade-offs' and underscores that they have been particularly common in forest carbon projects. Notably, Michaelowa et al. (2019:16) still list the sustainable development aspects of carbon offsetting projects in general – as well as the need for projects not to cause any negative impacts – as key challenges in the current Paris Agreement era. With regards to potential negative impacts of carbon offsetting projects, Carton and Andersson (2017: 832) list several documented issues, including: "land grabbing; the violent displacement of rural communities; the unequal distribution of, and access to resources; a particular propensity for corruption; and a range of deleterious environmental side effects".

According to Kollmuss et al. (2008: vi, 2), the voluntary markets recognised early criticisms, including a lack of benefits for project implementing communities. As a response, the voluntary market sought to "[…] restore the credibility of the offset market […]" by developing standards in order to overcome such failures (Kollmuss et al. 2008: 2). Similarly, Lovell (2010: 354, 357) argues that the voluntary markets absorbed the critique that the compliance markets received for not fulfilling the sustainable development criteria and actively focused more on the co-benefits of carbon offsetting projects in the GS.

It has also been argued that there were other incentives for the voluntary markets to strengthen the focus on sustainable development and poverty alleviation. Lovell and Liverman (2010: 259p) underline a difference between the carbon credits issued on the compliance markets and the voluntary markets. According to the authors, the compliance markets have intentionally tried to make 'fungible' (i.e. interchangeable) carbon credits out of credits that stem from different types of projects, by distancing the credits from information about how they were produced. In short, all carbon credits on the compliance markets are supposed to be exactly the same and have the same price regardless of the kind of project that produced them (ibid.).

On the voluntary markets however, the authors argue that: "*the discourse about carbon offset projects is particularly important* [since] certain carbon credits are attractive because they have a story associated with them and can be sold at a premium as 'gourmet' or 'boutique' carbon with an emphasis on their poverty-alleviation 'side benefits'." (Lovell and Liverman 2010: 260, emphasis added, my edit in brackets).

According to Lehmann (2019: 146) this is a popular way of marketing carbon offsetting on the voluntary markets. Lehmann (2019) calls this phenomenon 'charismatic carbon' and, similar to Lovell and Liverman's (2010) description, it means that the carbon offsetting's appeal can be enhanced through: "[…] stories about the reduction of carbon emissions and social co-benefits that support poor people [sic.] – especially women – in the Global South." (Lehmann (2019: 146). Similarly, Paterson and Stripple (2012: 570) include stories of poverty-reduction, development, local empowerment and gender equality in the virtues of 'boutique carbon'.

In a study comparing different standards on the voluntary market, Lee et al. (2018: 240p) found that labels focusing more on co-benefits than carbon reductions had a higher credit transaction performance. One of the explanations provided for this result was that: "Buyers of forest carbon credits are reported to be motivated by public relations (PR) highlighting corporate social responsibility and public benefits of carbon projects" (Goldstein 2015, in Lee et al 2018: 241). In addition to Lovell and Liverman (2010), researchers have also more recently drawn the conclusion that the value of carbon offsets – especially through tree planting projects on the voluntary markets – correspond with both the material aspects of- *and* the discourses about how and where the trees are grown, by whom and for what purposes (Carton and Andersson 2017: 839).

The discussion regarding the benefits (or lack of them) for project implementing communities in the GS is ongoing in the literature and criticisms are still raised, both on the compliance and the voluntary markets. In an article called 'Whose climate? Whose forest? Power struggles in a contested carbon forestry project in Uganda', Blum (2020: 9) argues that the voluntary standards' dual focus – on sustainable development benefits for communities in the GS and cost-effective climate change mitigation for actors in the GN – has: "[…] reproduced the prevailing win-win discourse […]" (Blum 2020: 9). The 'win-win discourse' implies that all stakeholders are winners and thus it makes potential trade-offs, power struggles and structural inequalities invisible (ibid.). The 'win-win' narrative is also highlighted by Fischer and Hajdu (2017) as they present another study of a tree planting project in Uganda. The plantation in question was certified under the CDM and invested in by the Swedish Energy Agency (SEA). One of the authors' conclusions was that the project failed to benefit the people affected by it, although the Swedish authorities described the project as a "win for all" (Fischer and Hajdu 2017:10). Osborne (2015: 64, 75) also questions the description of carbon markets as a "win-win solution to climate change" as she demonstrates equity-efficiency trade-offs that took shape in the implementation of a forest carbon project in Chiapas, Mexico. On the topic of voluntary standards in forest carbon projects, Awung and Marchant (2020: 78) argue that although there is evidence that voluntary standards can generate 'socio-economic co-benefits' "[…] the empirical support on the environment-poverty win–win scenario is not adequately established in forest policy […]".

The ongoing discussion regarding sustainable development benefits and win-win narratives is of particular interest to the topic of this thesis. It connects to the debate regarding frictions between the global and the local, and between climate change mitigation and sustainable development, which is not always evident to the carbon offsetting consumer (Blum 2020: 2).

As previously mentioned, the voluntary carbon offsetting market has sought to increase its reliability through the use of standards and labels (Lee et al. 2018: 236). Voluntary standard-setting has also been one of the ways to promote co-benefits and community-based natural resource management (Mathur et al. 2014: 43). The carbon offsetting standard used by MAX and ZeroMission is called Plan Vivo. Below follows a short summary of the Plan Vivo standard and the tree planting project in Uganda that MAX buys carbon offsets from.

3.2.4 Plan Vivo and the Trees for Global Benefits Project

The Plan Vivo standard was established in 1994 and has the overall aim of promoting carbon offsetting projects that deliver sustainable development benefits (Lee et al. 2018: 238). Co-benefits that the standard supports include sustainable livelihoods, community participation, biodiversity conservation and ecosystem services in rural and low-income communities in the GS (Lee et al. 2018: 236p). The very first Plan Vivo-project was developed in Mexico and was initially started as a research project designed to support smallholder farmers gaining access to financing from carbon markets (Kollmuss et al. 2010: 180). Today, Plan Vivo is recognised as one of the leading standards on the voluntary market (Senadheera et al. 2019: 4) and currently involve more than 17.000 smallholders in over 20 projects in Latin America, Africa, Asia, and Asia-Pacific (Plan Vivo 2020a, Plan Vivo 2020b).

The project that MAX buys carbon offsetting from is called Trees for Global Benefits (TGB) (MAX 2018a: 10). It is located in the south-west of Uganda, has been running since 2003 and has nearly 7000 participants (Plan Vivo 2020c). The project received the UN SEED Low Carbon Award in 2013 – an award that celebrates projects that i.a. deliver economic, social and environmental benefits and that have the potential to be replicated and scaled-up in other contexts (SEED 2020).

However, in a case-study of the project, equity concerns were raised because the project had not managed to include farmers that do not have enough land or resources to qualify for participation (Schreckenberg et al. 2013). It was argued that this could reinforce existing inequalities in communities, by offering an additional stream of income to households that already have relatively more capital than others (Schreckenberg et al. 2013: 2, 15). The concern regarding inclusion of low-income households is not unchallenged however, as Kiyingi et al. (2016: 223) found that such households were well-represented in the TGB-project. Other than that, concerns have also been raised regarding that farmers in the project have not received clear information about contractual issues, e.g. about the size and timing of payments (Schreckenberg et al. 2013: 2) as well as for promoting indigenous species of trees that make little commercial sense for low-income farmers to grow (Schreckenberg et al. 2013: 15).

3.2.5 Contributions of this thesis

As the background chapter has illustrated, several other studies have examined carbon offsetting in terms of project outcomes, such as (lack of) sustainable development benefits or negative impacts on project implementing communities. Previous studies have also centred on win-win discourses and the stories of charismatic carbon that are told in the marketing of carbon offsetting. This study aims to further explore the narratives that reach the consumers of products that have been carbon offset. There are other previous studies that have approached this end of carbon offsetting slightly differently, such as MacKerron et al.'s (2009) study of young adults in the UK and their willingness to buy carbon offsets with co-benefits for air travel; and Kuhn and Uler's (2019) study of individuals' behavioural motivations for buying carbon offsetting. There is also a study by Birchall et al. (2018) that has explored how 'carbon neutral' companies in the wine- and taxi industry, as well as actors on the carbon offsetting market, navigated the emergence of the voluntary offsetting market in New Zealand. The main similarity with this thesis is that Birchall et al.'s (2018) study also presents narratives of carbon offsetting companies and actors within the carbon offsetting market – i.e. actors in the GN. The data collection for that study was however carried out in 2010 and 2011, only included companies from New Zealand, and had a somewhat different objective than this thesis in that it sought to understand how actors navigated the emergence of the voluntary carbon market in New Zealand.

What I seek to contribute with is an understanding of what arguments and narratives that can be identified in the chain of Swedish actors (from the customers at the restaurant, to the restaurant itself, to the intermediary company ZeroMission) that are engaged in MAX's 'Climate positive' initiative.

4 Theory – concepts and analytical tools

The analytical framework of this thesis is mainly inspired by Carol Bacchi's (2009) approach for policy analysis, called "What's the Problem Represented to be?" (the WPR approach). I draw on this approach because it is useful for shedding light on how carbon offsetting by planting trees in the GS is prescribed as a solution, to what problems, and with what expectations in terms of outcomes.

4.1 What's the Problem Represented to be?

The WPR approach is characterised by its Foucault-inspired, post-structural take on policy analysis. The term policy is in this context broadly defined as 'a program, a course of action' (Bacchi 2009: ix). Going forward, I use the word 'policy' interchangeably with the word 'solution', since the concept of policy itself is associated with a need for change, implying that where a policy is applied there is a problem to be solved (ibid.).

Typically, this is the way we think about the word 'problem'. The word indicates that we are facing something difficult, challenging, or something that needs to be fixed (Bacchi 2009: x). More conventional approaches to policy analysis therefore think about policies as addressing pre-existing problems, that are 'out there' for policymakers to solve. However, the WPR approach assigns a different meaning to the word 'problem'. In this context the word is used to describe: "*the kind of change* implied in a particular policy proposal." (Bacchi 2009: xi, emphasis added).

From this perspective, policies are considered to *shape* problems rather than *address* them (Bacchi 2009: x). Thus, the WPR approach does not encourage us to think of problems as naturally given or pre-existing, but rather, to look at how they are made into specific types of problems, with specific types of matching solutions (Bacchi and Goodwin 2016: 17). In this thesis, the 'problem of climate change' is therefore not thought of as something pre-defined, but as a problem that is framed or shaped by the proposals to solve it.

MAX's 'climate positive' approach might not be a policy as we think of policies in everyday terms, for instance as in 'public policy', but the framework for analysis offered by the WPR approach allows for a broad application. In this thesis, the WPR approach is applied to carbon offsetting by planting

trees in countries in the GS, in order to understand what the prescribed solution says about the representation of the problems it responds to.

4.2 What's the Problem Represented to be? More than one question

The central question in the WPR approach (as suggested by its name) is *how problems are represented as particular kinds of problems* (e.g. what the 'problem of climate change' is represented to be) in a certain solution. The term 'problem representation' refers to "the understanding of the 'problem' [that is] implied in any policy or rule" (Bacchi 2009: xii, my edit in brackets).

The point of entry is therefore that a prescribed solution – such as carbon offsetting by planting trees in the GS – tells us something about the character of the problem; *what* it is that needs to change and *how*. In this thesis, it means that I start by asking *what kind of problem* climate change is represented to be on the two companies' websites and in the interviews with the customers. I work 'backwards', so to say, from the solution to explore how the problem is represented (Bacchi and Goodwin 2016: 17).

There are also other questions that should be asked in a WPR inspired analysis. Altogether, Bacchi (2009: xii) lists six questions:

1) "What's the 'problem' (e.g. of 'problem gamblers', 'drug use/abuse', domestic violence, global warming, health inequalities, terrorism, etc.) represented to be in a specific policy?"
2) "What presuppositions or assumptions underlie this representation of the 'problem'?"
3) "How has this representation of the 'problem' come about?"
4) "What is left unproblematic in this problem representation? Where are the silences? Can the 'problem' be thought about differently?"
5) "What effects are produced by this representation of the 'problem'?" and
6) "How/where has this representation of the 'problem' been produced, disseminated and defended? How could it be questioned, disrupted and replaced?"

These questions can of course be applied one by one and followed systematically, but as Bacchi (2009: 233) reminds us, the questions are typically "[…] part of an integrated analysis, with specific questions applied where the analysis occasions their use". In this thesis, questions number one, two

and four are the at the center of the analysis, since these questions speak directly to the empirical material. Question number three has been ruled out because it does not fit well within the scope of this thesis. Question five relates to the impacts of the solution – what Bacchi (2009: 70) call the 'lived effects'. These effects are defined as "the impact of problem representations on people's embodied existence" (ibid.) and in the analysis this question guides the search for outcomes related to how problems are represented. Question six has already been implicitly touched upon through the introduction and the background chapter and remain in the periphery of the analysis. It does however re-emerge in chapter '7 Discussion' where it is related to how UNFCCC (2020c) have disseminated a similar initiative called Climate Neutral Now.

Some clarifications should also be made in relation to question number two. Within the WPR approach, this question provides guidelines for how to identify 'background knowledge' that helps us answer the question. The aim here is "to identify and analyse the conceptual logics that underpin specific problem representations." (Bacchi 2009: 5). The 'conceptual logics' should be thought of as "the meanings that must be in place for a particular problem representation to cohere or to make sense." (ibid.). In order to succeed in identifying and analysing the conceptual logics, the approach encourages a discourse analysis that investigates *key concepts, categories* and *binaries* in the solution, in order to identify what presuppositions and assumptions that are embedded within it and that supports it (Bacchi 2009: 7p). Discourse is in this context broadly defined as 'meaning systems' and include assumptions, values, presuppositions and conceptual logics (Bacchi 2009: 7). Although the solution is articulated in language, discourse goes beyond language. As Bacchi (2009: 7) argues: "Policy is about meaning creation and our task is to identify how meaning is created." The reason for studying key concepts, categories and binaries specifically is thus that "[…] they function to give particular meanings to problem representations." (Bacchi 2009: 9).

Some additional clarifying points should be made before entering the analysis. As Bacchi (2009: 5) underlines, an analysis inspired by the WPR approach *does not* aim to identify or understand what certain actors are thinking, or what they themselves believe or assume. Instead, the intention is to understand what type of "assumptions and/or presuppositions that *lodge within problem representations*." (ibid., emphasis in original). Hence, the analysis is not concerned with individual actors' thoughts or biases, but with the knowledges and presuppositions that their arguments and articulations are based on.

Clarifications should also be made regarding the role of the actors in the WPR approach. While Bacchi (2009: ix) talks of policymakers, the companies and the customers in this analysis are not actors that you typically associate with policymaking. Also, the solution that the actors prescribe and take part in is not an entirely original idea, even though it has been tweaked into something new, from 'climate neutral' to 'climate positive'. Thus, there is already a policy framework in place for carbon offsetting that can be *enacted*. The actors can therefore be thought of as policy*enactors*, instead of policy*makers*, in that they largely rely on existing policy frameworks for mitigating climate change.

This way of thinking connects to how policy sociologist Stephen Ball (2015: 467) discusses policy and how it is 'done' – not just by the 'big names' but also by small and medium sized actors. In an editorial for the Journal of Education Policy, Ball (2015: 467) argues that: "Policy gets done and re-done in many places and many ways by many different people. As it moves through these places, it changes and those subject to it are changed. We speak policy and at the same time policy speaks us; it creates positions from which we are able to act and think." Ball (2015: 467) further underlines that policy is a process, and that the questions of who is involved in that process and how they are involved in it are important to consider.

I use the WPR approach in order to explore what kinds of problems carbon offsetting by planting trees in the GS responds to on the two companies' websites and in the interviews with the customers. I recognise that policy is not only carried out by policy*makers,* but also by policy*enactors.* I use this analytical approach to explore policy – not as it was formulated by intergovernmental organisations, such as the UN, or by national governments – but as it is relayed and reproduced in everyday situations: when browsing the companies' websites and when people buy food at a restaurant with a 'climate positive' menu.

5 Material and methods

As previously mentioned, this WPR-inspired analysis explores the expressions of actors on three levels: 1) the Swedish fast food company MAX, 2) the Swedish intermediary company ZeroMission and 3) individual customers at MAX. Different types of data has therefore been collected regarding the three kinds of actors. The WPR approach allows for a variety of types of data to be analysed. What counts as policy material in the WPR approach can range from organisational documents, speeches, budgets, media statements to interview transcripts (Bacchi and Goodwin 2016: 18). I have looked at material available on the two companies' websites and conducted interviews with the customers. A more detailed outline of the data collection and the analytical approach follows below.

5.1 Data collection

5.1.1 MAX

Regarding the data collection related to MAX, I gathered text and video material from the company's own website. I specifically looked at sub-pages on the website that described the company's 'climate positive' initiative and (guided by the WPR-approach) analysed the following online material:

- A brochure titled: "Climate positive burgers – Every bite contributes to a better climate" (MAX 2018a, my translation[7])
- A video presentation titled: "A Global Launch of Climate Positive - How Max Burgers is Inspiring Brands to Do More" (MAX 2018b, English in original)
- An assessment of MAX's carbon footprint for 2017 (MAX 2018c)
- A sub-page titled "Climate positive" (MAX 2020a, my translation[8])
- The 'responsibility section' of the company's website (MAX 2020b)

5.1.2 ZeroMission

The data collection related to ZeroMission was also gathered through the company's own website. I specifically looked at sub-pages on the website that described carbon offsetting by planting trees in countries in the GS and (guided by the WPR-approach) analysed the following online material:

[7] Swedish original title: "Klimatpositiva burgare – Varje tugga bidrar till ett bättre klimat"
[8] Swedish original title: "Klimatpositiv"

- A brochure titled: “The root of the good – How you create sustainable growth by planting trees” (ZeroMission 2019, my translation[9])
- The company’s main website (ZeroMission 2020a)
- The company’s “about us” section (ZeroMission 2020b)
- The company’s “services” section (ZeroMission 2020c)
- The company’s “carbon offsetting – frequently asked questions” section (ZeroMission 2020d)
- The company’s “carbon offsetting projects” section (ZeroMission 2020e)

The choice to conduct an analysis of the written material on the two companies’ websites was based on the large amount of publicly available publications in which both MAX and ZeroMission write in great detail about carbon offsetting by planting trees in the GS.

5.1.3 The customers

For the data collection related to the customers, I conducted semi-structured interviews (Bryman 2011: 415), with both open-ended and closed questions. I conducted these interviews in order to gain an understanding of whether the customers made similar descriptions of carbon offsetting by planting trees in the GS as MAX and ZeroMission, or if there were any discrepancies between the actors’ problem representations.

To prepare the interview guide, I first studied MAX’s online commercials that relate to their ‘climate positive’ campaign. Based on the content of the commercials I mapped out the following themes that I wanted to explore further in the interviews: 1) ‘Carbon offsetting through trees’, 2) ‘Choosing food products based on the climate’, 3) ‘Planting trees in Africa’ and 4) ‘The concept of “climate positive”’. I then constructed an interview guide with valuable input from my supervisor and her colleague. A pilot-run of the interview guide was conducted with customers at a MAX restaurant in central Uppsala, Sweden. Having tested the interview-guide, I made some modifications to it and also decided that it would be beneficial to change the location to a less centrally located – and therefore (hopefully) less crowded – restaurant when conducting the interviews that were analysed in this thesis.

[9] Swedish title: “Roten till det goda – Hur man skapar hållbar tillväxt genom trädplantering”

In terms of quantity, the aim was to conduct between ten and fifteen interviews. Two factors mainly influenced this aim. First, I had the intent of reaching saturation – here defined in accordance with one of Bryman's (2012: 421) three criteria, namely that no new perspectives or data would emerge from the interviews. Without knowing for certain when saturation would be reached, the estimation was that it could be achieved after this approximate number of interviews. After the twelfth and final interview had been conducted, I believed that saturation was reached, as no new types of data emerged. Second, the decision to aim for between ten and fifteen interviews was also influenced by the need for limiting the amount of data for processing and analysis in accordance with the scope of this study.

During the first data collection visit to a MAX restaurant in the outskirts of Uppsala, Sweden, I conducted nine interviews with ten people. All interviews except one were conducted with one person at a time. In one of the interviews, an elderly couple wanted to be interviewed together, which is why the number of interviews and the number of informants is not the same. During a second visit to the restaurant, I conducted an additional three interviews with three people. Thus, all in all, twelve interviews with thirteen informants were carried out. The interviews varied between two and nine minutes, averaging approximately four and a half minutes. During both of my visits, I ordered a cup of coffee upon arrival at the restaurant and I informed the staff at the checkout counter that I was a student that wanted to conduct interviews with customers for my master's thesis, which the staff said was ok.

In terms of sampling, the population that I wanted to interview were customers at the restaurant, as this was the category of people that could help answer my research questions. Moreover, I strived for variety regarding people's ages and interviewed people that were approximately between 20-70 years old. I also strived for a balance in terms of male and female informants. However, I did not achieve a total balance, as I interviewed eight male and five female informants.

The method for sampling was also influenced by my experiences of the pilot run of the interview guide. One of the lessons from the pilot run was that it for practical reasons was difficult to have a randomisation approach that would generate a probability sample (Bryman 2012: 187). For instancec, during the pilot run, I tried standing at the entrance/exit of the restaurant and ask every fifth person who passed by for an interview. I quickly realised that the entrance/exit was a bad location for asking people for an interview, since people either were in a hurry to order food or to leave the restaurant

after their meal. I therefore decided to ask people for interviews while they were seated at the tables. I thought about different options for a systematic sampling process, such as asking the people at every fifth table for an interview. However, such an approach presented some problems. For example, during the pilot run, there were many children and youths at the restaurant and I only wanted to interview adults. Furthermore, many of the seated customers were busy in different ways. For example, some customers were talking on the phone, others sat together in groups and were engaged in conversations with each other. There were also parents at the restaurant that were busy with tending to their children while they ate. My perception was that the interviews could be negatively affected if I interviewed customers that were busy or sitting in groups, as informants then might have rushed through the interviews, gotten distracted or responded differently compared to if they had been interviewed alone. That interviews can be affected by the surrounding environment and that, ideally, other people should not be able to hear what the informant is saying is supported by Bryman (2011: 421). In my case, it was not possible to completely isolate customers at the restaurant from each other and I could not ensure that no one would overhear the interview. However, in order to create good prerequisites with as little disturbances as possible in the interviews I mainly asked people that were seated alone (and on a few occasions in pairs) for interviews.

During the interviews, my perception was that most of the informants were relaxed and the situation did not feel awkward or strained. Only once did I notice signs of slight stress in an informant. My interpretation is that this was because the informant was wating for their food to be prepared, as they kept looking at the checkout counter to see if their food was ready. Other than that, most conversations were comfortable and without any noticeable signs of unease or tension. I recorded the interviews with a sound recording device and after the interviews I made notes regarding peoples estimated age and whether the informants were male or female.

I also made notes regarding the customers that declined to participate. Out of the 19 customers that I asked for interviews, five declined participation. First, there was an unaccompanied male customer who said he could not participate because he was in hurry to leave. Second, a family consisting of two parents and one child declined to participate without providing a reason for this. However, the parents did not speak Swedish and their child translated my request to them, which they then turned down. This leads me to think that there might have been a language barrier involved in their decision, but I cannot know for sure. There may be other reasons as to why they did not want to partake in the study. Finally, an elderly couple declined my request to partake in an interview without providing a

reason for this. In addition, there was one customer that agreed to be interviewed but that did not want to be recorded. This interview did not generate any unique findings and has not been analysed in this thesis due to the combination of a lack of new perspectives and the lack of a sound record of the interview.

Although the sample is a non-probability sample (Bryman 2012: 187), I could not detect any clear bias in terms of whether the people that agreed to participate in this study were more interested in the topic of climate change and carbon offsetting than the ones that declined participation. I told the customers that my thesis focused on the climate issue before the interviews, so there is a possibility that some customers turned down participation because of the topic. There is also a risk that some of the people that agreed to participate only did so because of the topic of my study. However, some of the people that I interviewed said that they did not know much about the climate or about MAX's approach to climate change, which leads me to believe that the sample of informants is not one sided in this regard. Nevertheless, it should be clarified that due to the sampling methods used in this thesis, the sample of customers should not to be regarded as a general representation of MAX's customers.

5.2 Analytical approach

As described in the theory section, a WPR inspired analysis takes its departure in a proposed solution (or policy) and then works backwards, to illustrate *what kind of problem* the solution responds to (Bacchi 2009). In this case, the starting point for the analysis is the solution prescribed by MAX and ZeroMission – to carbon offset by planting trees in the GS, first and foremost as a response to the problem of climate change. Together, I call the identified problem representations and their corresponding solutions 'problem-solution complexes', as they describe the interplay between problems and solutions.

The first question asked in the analysis is "How is the problem of climate change represented in the prescribed solution?" (cf. Bacchi 2009: 2). The point of asking this question is to identify problem representations within the empirical material. Secondly, I analyse the conceptual logics through what I call looking for 'the wider story'. Here, I include the wider meanings and the background knowledge needed to support the particular problem representation. In line with Bacchi's (2009: 7) suggestion I look for specific concepts, categorisations and binaries that are important for building this wider story. The question that guides this part of the analysis is "What presuppositions or assumptions underlie

the representations of the climate change problem"? (cf. Bacchi 2009: 4). Thirdly, the analysis seeks to answer what is *not* problematised, what 'silences' there are within the problem-solution complexes and whether any contradictions were identified within them. The questions that guides this part of the analysis are "What is left unproblematic in this problem representation? Where are the silences? Can the problem be thought about differently?" (cf. Bacchi 2009: 12). I also use the problem representations, the conceptual logics and the silences to draw conclusions about the impacts or 'lived effects' of the prescribed solution (Bacchi 2009: 70). The question that guides this part of the analysis is "What effects are produced by this representation of the problem?" (Bacchi 2009: 15).

In order to be able to analyse the material according to the concepts and questions above, I first gathered the texts from the two companies' websites in a Microsoft Word document. The video presentation on MAX's (2018b) website was summarised in the same document, with time stamps that indicated what topics that were mentioned at what times during the presentation. Then the most relevant parts of the monologue were transcribed word for word. I also made edited transcripts (Streefkerk 2019) of all the interviews in the word document in order to be able to analyse them guided by the WPR approach.

After I had gathered all the data in the same document and in the same format, I began to read the texts. While reading, I kept the abovementioned questions and concepts in mind. Whenever I identified a sentence or a paragraph that answered one of the questions, or that connected to one of the analytical concepts, I made a comment (using the comments function in Microsoft Word) in which I included what question(s) the piece of text related to and how it connected to the analytical concepts of the WPR approach. I did this with all the data from the two companies' websites and with all the transcripts from the interviews with the customers. After that, I made a second reading of the texts to check if I had missed any relevant aspect. Simultaneously, I began sketching out the main themes and categories. I also received support from my supervisor with categorising the problems and solutions. The subsequent work on the analysis was an iterative process. In order to deepen my analysis and ensure that I was using the analytical tools in appropriate ways, I went back and forth between reading about the analytical tools of the WPR approach, applying these tools on the data, and writing down my findings.

In the following section, I present the findings of the WPR analysis of MAX and ZeroMission's websites and of the interviews with the customers at MAX.

6 Results and analysis

6.1 Four problem-solution complexes

In this section, I present the findings of my WPR analysis. The results consist of four problem-solution complexes that were identified in the analysis of the empirical material. The first three complexes describe what kinds of problems climate change was represented to be in relation to the corresponding solution. The fourth complex describes how carbon offsetting by planting trees in the GS was represented as a solution to sustainable development-related problems in the GS. The titles of the problem-solution complexes are put in single quotation marks to emphasise that they reflect my own interpretation of how the problems were represented (Stark 2019) by MAX, ZeroMission and the customers.

Below, I first shortly describe the main features of each of the problem-solution complexes, followed by a more detailed analysis. In the detailed analysis I mainly focus on two things. First, I illustrate the underlying assumptions and presuppositions that are embedded in (and that support) the problem representations. Second, silences and contradictions within the problem representations, as well as impacts of how the problem is represented, are illustrated.

The analysis revealed four common descriptions of problems and associated solutions in the climate change mitigation discourse. These problem-solution complexes are:

1) ‘Reducing emissions is not enough – climate change as a carbon dioxide removal problem’;
2) ‘Consumption causes climate change (…but is also the solution to it) – climate change as a market problem’;
3) ‘Tree plantation is currently the only viable solution – climate change as a deforestation problem’ and;
4) ‘Carbon offsetting and its co-benefits – climate change mitigation as a sustainable development intervention.

6.1.1 *'Reducing emissions is not enough – climate change as a carbon dioxide removal problem'*

This problem-solution complex appeared regularly in the analysis of both MAX and ZeroMission's websites. The main emphasis in terms of the problem representation was that reduced emissions on its own fails to solve climate change. It was argued that an adequate solution therefore has to build on a combination of reduced emissions and carbon dioxide removal (CDR) (Holz et al. 2018; Gough et al. 2018).

In terms of how the solution responds to the problem, both MAX and ZeroMission generally underlined that the climate can be "stabilised" (MAX 2018a; MAX 2018b) or "restored" (ZeroMission 2019) through CDR. Both companies stressed that the GHGs in the atmosphere already surpass the levels that are needed for keeping global temperatures in line with the aim of the Paris Agreement,[10] and that CDR therefore is absolutely necessary in order to succeed (MAX 2018a; MAX 2018b; MAX 2020a; ZeroMission 2019; ZeroMission 2020d).

As for the interviewed customers, none of them explicitly expressed that there is a need for CDR. However, a majority of the customers (8 of 13) indicated that carbon offsetting by planting trees is a good or decent component in a response to climate change – but that it is insufficient on its own. This is similar to how MAX and ZeroMission represented the problem, but with a mirrored representation, as the customers typically emphasised that 'offsetting not is enough' rather than that 'reducing emissions not is enough'.

Below follows a more detailed analysis focused on the underlying assumptions of this problem-solution complex and, subsequently, on its silences and impacts.

6.1.1.1 *The wider story of climate change as a 'CDR problem'*

There were several instances in which MAX represented climate change as a 'CDR problem' in a brochure titled "Climate positive burgers – Every bite contributes to a better climate" (MAX 2018a). The brochure contained statements such as:

[10] "The Paris Agreement central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius." (UNFCCC 2020a).

"*To have a chance of reaching the Paris Agreement's goal it is not enough to just reduce emissions. We also need to start clearing the atmosphere of some of the carbon dioxide we already have released.*" (MAX 2018a: 3, my translation).

Similarly, this problem representation was articulated by the company's Chief Reputation Officer (CRO) and Chief Sustainability Officer (CSO) in a video presentation called "A Global Launch of Climate Positive – How MAX is Inspiring Brands to Do More" (MAX 2018b). During this video presentation, the necessity of going beyond reduced emissions and climate neutrality was at the forefront. Net negative emissions through CDR was pointed out as an essential part of the response to the climate problem, as the company's spokesperson stated that:

"[…] *we know now that we have emitted so much carbon into the atmosphere that if we want to reach the 2-degree Paris Agreement goal, we need to start to suck down carbon from the atmosphere again. Going neutral is not enough anymore. Did you know that? It's too late to just reduce emissions."* (MAX 2018b, English in original).

The company also expressed the need to both reduce emissions and remove carbon dioxide from the atmosphere on their website under the sub-heading "Climate positive". Climate change was here described as a problem solved by achieving net negative emissions:

"*If the world is to achieve the global climate goal of limiting warming to below two degrees, we need to both reduce greenhouse gas emissions to the atmosphere and at the same time drain the atmosphere on some of the carbon dioxide we already have released. It is therefore not enough to just be neutral.*" (MAX 2020a, my translation).

As illustrated through these quotes, the CDR-based solution was typically put in contrast to hypothetical alternatives based on only reducing emissions or solutions that would result in net zero emissions instead of negative emissions. Such alternatives were deemed inadequate. Thereby, carbon offsetting by planting trees was implicitly contrasted with alternative ways carbon offsetting that would fail to reduce the levels of carbon dioxide in the atmosphere. The importance of using 'the right type' of carbon offsetting was thus underscored and the case for planting trees was strengthened.

Another central part of this problem-solution complex was the frequent references to the Paris Agreement and the aim of limiting global warming to 1.5 or 2 degrees. My interpretation of these references is that they serve as a benchmark against which a successful response to climate change is measured. The goal of limiting global temperature rise to 1.5 degrees (or to a maximum of 2 degrees as a second best) provided a legitimate point of reference that the solution was put in relation to. It also made it possible to make comparisons and point out that other solutions would fail to reach these goals. The Paris Agreement thereby provided a solid backdrop and increased the sense of legitimacy. I see this an example of what Bacchi (2009: 5) refers to as a type of 'background knowledge' that supports the problem representation and makes it comprehensible.

ZeroMission

As for ZeroMission's representation of climate change as a 'CDR problem', similar examples as the ones above were found on the company's website. The following sentence, with striking similarity to the articulations in the examples above, was posted on the company's main website and on several subpages: "*To reach the 1.5-degree goal, we need to both decrease greenhouse gas emissions and at the same time absorb the carbon dioxide we already have emitted."* (ZeroMission 2020a, ZeroMission 2020b, ZeroMission 2020c, ZeroMission 2020d and ZeroMission 2020e, my translation).

The company also represented climate change as a 'CDR problem' when arguing that planting trees is an especially important climate change mitigation measure:

"*In its Climate Change and Land report, IPCC emphasises the importance of planting forests to limit warming to 1.5 or 2 degrees. They present different scenarios for how the world can keep global warming under 1.5 degrees. To succeed, the earth needs to reduce emissions by 45% from 2010 levels in order to achieve net-zero emissions by the middle of the century. All scenarios require a combination of reduced emissions and negative emissions, that is, to bind already released greenhouse gases from the atmosphere through, for example, reforestation."* (ZeroMission 2020d, my translation).

The CDR representation was also identified in a headline on the company's main website, which read: "*Carbon Dioxide Removals – necessary to meet the climate target*" (ZeroMission 2020a, my translation, emphasis added).

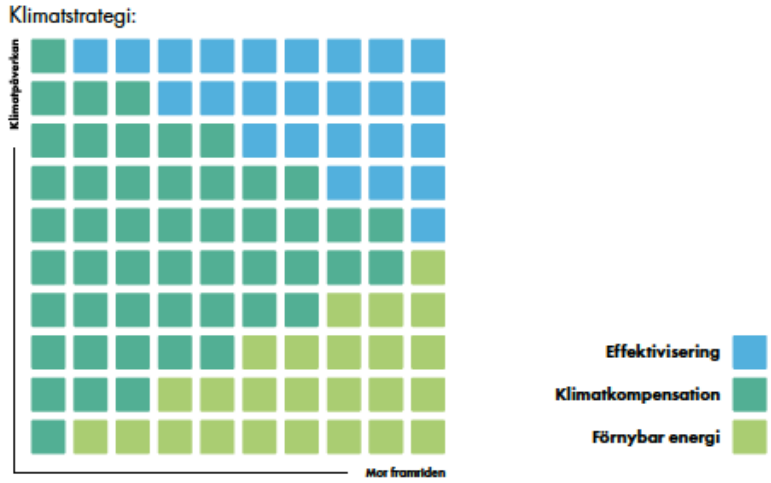
These examples illustrate that climate change also here was represented as a 'CDR problem' and that the Paris Agreement again was referred to as a benchmark for a successful response to climate change. In addition to frequent references to the Paris Agreement, ZeroMission also drew intertextually on a well-established document from the IPCC, which further underlined the importance of CDR (ZeroMission 2020d). In similarity with the references to the Paris Agreement, this can be regarded as a type of reinforcement of the argument for planting trees as part of the solution to the climate change problem.

Moreover, both companies stated that carbon offsets only are supposed to cover emissions that are difficult or impossible to currently reduce (MAX 2020b; ZeroMission 2020a; ZeroMission 2020c and ZeroMission 2020d). Carbon offsetting was described as a measure that immediately can be implemented in order to reduce one's climate impact (MAX 2018a: 10; ZeroMission 2019: 16) or as a part of shifting to a 'positive' climate impact (MAX 2018a: 10). It was however stressed that this should be done while working on reducing one's emissions. For instance, MAX stated that the foundation of their climate strategy is to constantly work to lower their GHG emissions (MAX 2018a: 8). Both companies also indicated to varying degrees (ZeroMission much more so than MAX) that it eventually will be possible for companies to eliminate their emissions (MAX 2018a: 10; ZeroMission 2019: 6, 15). Carbon offsetting was described as a short-term solution, that facilitates the transition to zero emissions, as illustrated in the two following quotes:

"*Carbon offsetting […] is also a temporary solution, something that is done in parallel with work aimed at reducing the need for offsetting […]*" (ZeroMission 2019: 15, my translation).

"*[…] carbon offsetting is not the only measure you take, but is part of a package of measures aimed at actually reducing the emissions. As a consequence, the need for compensation will decrease year by year. In best case, this means that in the long term, our customers do not need to buy any carbon offsetting at all.*" (ZeroMission 2019: 6, my translation, emphasis added).

The model below shows how ZeroMission illustrates the process of carbon offsetting in parallel with reducing emissions, leading to less and less carbon offsetting over time. Carbon offsets are illustrated in dark green and decrease over time, while renewable energy (illustrated in light green) and efficiency (illustrated in blue) increase over time:



Source: Roten till det goda (ZeroMission 2019: 15)

The analysis identified 'reduced emissions' as a key concept (Bacchi 2009: 8) for three main reasons. Firstly, reducing emissions was highlighted as an insufficient measure in and of itself, thereby strengthening the argument for carbon offsetting through planting trees. Secondly, because it was emphasised that it is difficult to make sufficient emissions reductions in the short-term, the case for offsetting emissions was further strengthened. Third, reducing emissions was together with carbon offsetting described as the main elements of a proper response to climate change.

The customers

Turning to the interviews with customers at MAX, none of the customers explicitly said that the solution to climate change has to build on both reduced emissions and CDR. However, they still made statements that are relevant to this problem-solution complex, as their representations of the climate change problem differed slightly from that of the two companies and thereby provided a contrasting point of view.

Eight of the customers said that carbon offsetting by planting trees is 'better than doing nothing' or that it is 'a good start'. This indicates that the majority of the interviewed customers thought that carbon offsetting by planting trees is a good or decent component in a climate change solution. However, it does not signal that carbon offsetting with CDR is essential, as expressed by the two companies. Among the eight customers that expressed this point of view, several said that the most important part of the solution to the climate change problem is to reduce emissions as much as possible, e.g. by using less resources or renewable energy, and that carbon offsetting can be a complement to that. Below are some examples that illustrate how the customers reasoned:

"*I see that [MAX] are trying but I still think that we have so much waste here. So, I think that they should try harder to reduce the paper and plastic use, to leave a smaller carbon footprint. […] Yes, [carbon offsetting] is better than nothing but it's better to reduce [emissions] as much as possible […]. But still, I think with fast food we have so much waste and a big footprint on earth*." (AC1 2020, English in original, my edits in brackets).

"*I find it difficult to believe that planting trees would replace that you did not use resources. But of course, if you use the resources, then it is better that you try to compensate […]. But it would be best if you did not use resources more than necessary*." (AC13 2020, my translation, my edit in brackets).

"I don't know if climate impact as in planting trees is the primary thing, but I would say more that as a company, that you look for ways to reduce plastic products or similar solutions […]" (AC3, my translation, my edits in brackets).

Another customer similarly expressed that carbon offsetting can be part of a response to the climate change problem but said that there is a limit to its use. This customer also underlined the symbolic value of carbon offsetting, as he said that offsetting sheds light on the problem of climate change and make people aware of it:

"*[Carbon offsetting] is not the only solution I would say, but of course, it is good because it still opens our eyes to the problem. Then it does not help completely, of course, because then we would be able to consume even more and just plant lots of trees. There is a limit there of course. But it's a way to pay attention to [the problem] anyway, so it's good.*" (AC12 2020, my translation, my edits in brackets).

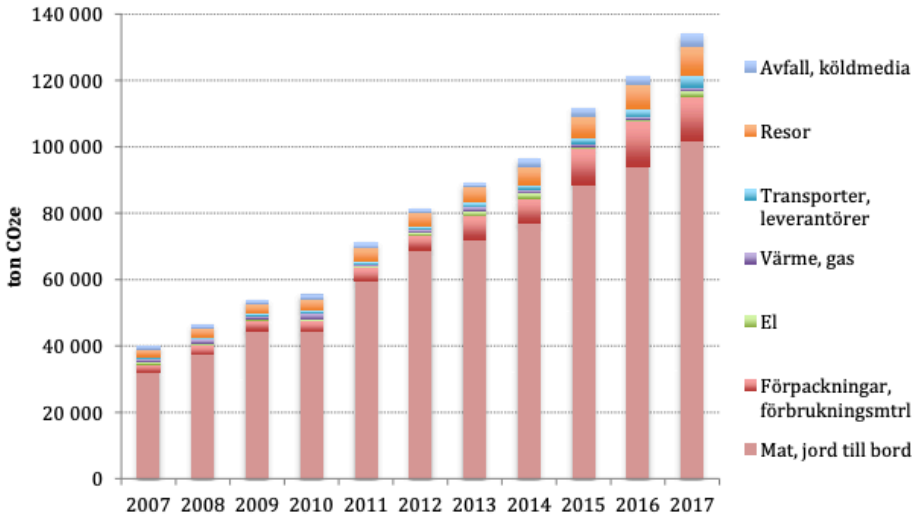
My interpretation of the customers' expressions is that many of them emphasised that 'carbon offsetting not is enough' while my interpretation of the companies' articulations is that they emphasised that 'reducing emissions not is enough'. This showed that the narrative of how to solve the climate problem identified on the two companies' websites was not without contrast or contestation among MAX's customers.

The section below begins with an analysis of the concept ‘reduced emissions’, focusing on how differences in the meaning of ‘reduced emissions’ implied contradictions in terms of the overall role that carbon offsetting by planting trees plays in the response to climate change.

6.1.1.2 Silences, contradictions and impacts of climate change as a ‘CDR problem’

The analysis found that the concept ‘reduced emissions’ was not used coherently between the two companies. ZeroMission seemed to define reduced emissions in absolute terms but it was not always made clear what meaning the concept had on MAX’s website. For example, in MAX’s video presentation of ‘climate positive’, the company’s CRO and CSO explained that if the company meets its target – that every second meal should be made without beef by 2022 – the company will have: “*[…] reduced [its] carbon footprint with 30% in just seven years. 30% reduction, with everything included, in just seven years.*” (MAX 2018b, English in original, my edits in brackets). There was no mention of *how* the company defined the reduced carbon footprint.

Under the heading of “Responsibility” on MAX’s website, reduced emissions were described without mentioning whether the reductions were in absolute or relative terms (MAX 2020b). Similar results were found in the CEO and VP’s opening statement in the introduction to the brochure “Climate positive burgers – Every bite contributes to a better climate” (MAX 2018a: 3). Further on in the brochure it was explained that emission reductions were expressed in relation to turnover – meaning that in absolute terms the emissions have increased steadily over a ten-year period (MAX 2018a: 8). The company’s emissions have more than tripled between 2007 and 2017, as is shown in the subsequent graph. The increase is mainly derived from a considerable increase in sales as well as a more than a doubling of restaurants (ibid.).



Source: Analys av MAX AB:s klimatpåverkan år 2017 (MAX 2018c: 23)

With regards to the company's turnover and its emissions, it was expressed in the brochure that MAX intends to keep growing and increase its turnover, without increasing its climate impact *at the same rate*. The company referred to this as 'decoupling' (MAX 2018a: 9). Seemingly, this stands in contrast to the abovementioned description by ZeroMission (2019) of carbon offsetting as something that happens in parallel with decreased emissions and, consequently, that the need for carbon offsetting decreases year by year. The analysis thus generated an understanding for how different definitions of 'reduced emissions' can lead to different impacts in terms of how much carbon offsetting a company has to buy in order to compensate for its climate impact. When carbon offsetting by planting trees, as in this case, the effect of not lowering your emissions in absolute terms, but in relation to your turnover, is that more and more trees have to be planted each year in order to compensate for the company's climate footprint.

6.1.2 'Consumption causes climate change (…but is also the solution to it) – climate change as a market problem'

In this problem-solution complex, both companies' and consumers' role in causing and solving the climate change problem was central. The main expression here was that the private sector and consumers partially cause the climate change problem and that businesses and individuals therefore partly are responsible for solving it.

The analysis found that the first step of the solution to climate change as a 'market problem' was presented by MAX as for companies to take responsibility for their own GHG emissions by calculating, analysing, reducing and offsetting emissions. The second step was to provide consumers with products and services whose GHG emissions have been carbon offset by at least 110% through carbon offsetting by planting trees. Third, consumers should buy the 'climate positive' products instead of regular products. MAX also sought to influence others to do more for the climate (MAX 2018a and MAX 2018b).

ZeroMission's articulation of the solution was in many ways similar. Companies' own responsibility for their emissions was highlighted and reducing emissions in combination with carbon offsetting was promoted as a way for companies to shoulder that responsibility. Consumers' role in climate change mitigation was also underlined by pointing out that there is a demand from customers for products and services that are beneficial for the planet (ZeroMission 2019 and ZeroMission 2020c). Inspiring others to do more and communicating one's climate strategy was also encouraged (ZeroMission 2019).

However, there were some differences between the two companies' problem representations. The first step in ZeroMission's suggested approach was to educate oneself about climate change and planetary boundaries (ZeroMission 2019: 49). Furthermore, other types of projects than tree planting projects were suggested as possible options for certain types of companies. For instance, carbon offsetting through renewable energy projects were said to be a better match for companies whose emissions mostly are tied to fossil fuels (ZeroMission 2020d) while tree planting projects were said to be a better match for companies within the food industry (ibid.). It was argued that the type of carbon offsetting a company chooses should be tied to the company's products and business activities (ZeroMission 2019: 44, ZeroMission 2020d). ZeroMission also more frequently addressed companies' and organisations' responsibility than the individual consumers' responsibility.

The customers articulations in this problem-solution complex were diverse. Four of the thirteen customers plainly said that they did not consider whether the food they bought had been carbon offset. Six said that although they had not considered it themselves, they still thought that it was good that the food had been offset. Only three said that they considered carbon offsetting or the climate as a

factor when buying food.[11] The different responses indicates a diversity among the customers' consciousness, willingness and/or means of making consumption choices 'for the climate'.

Below follows an outline of 'the wider story' of climate change as a 'market problem' as represented by MAX, ZeroMission and the customers.

6.1.2.1 The wider story of climate change as a 'market problem'

Most notably in this problem-solution complex, MAX described itself as a contributor to the climate change problem and called its signature product (the beef burger) "a major climate villain" (MAX 2018b). The company also expressed that it should be a part of the solution precisely because it is a part of causing the climate change problem (MAX 2018b; MAX 2020a). In terms of the company's descriptions of carbon offsetting, it was referred to as a way for the company to take 'direct responsibility' for its emissions, while simultaneously working on reducing its climate impact in other ways (MAX 2018a: 10). The company also stated that carbon offsetting works as an internal carbon tax that accelerates the company's work on reducing emissions (ibid.: 11). These were the main 'underlying assumptions' and 'background knowledges' (Bacchi 2009: 5) that were identified on MAX's website.

Moreover, 'climate positive' is interpreted as a 'key concept' (Bacchi 2009: 8) in this complex, as MAX presented it as *the* solution to climate change – not only for the company itself, regarding its own products and emissions – but also for other companies, products and for private individuals (MAX 2018a: 3, 15). The three steps needed for other companies and individuals to replicate the 'climate positive' approach was presented as 1) analysing ones' emissions, 2) reducing ones' emissions and 3) capturing at least 110% of ones' emissions by carbon offsetting through planting trees (MAX 2018a: 15; MAX 2018b). It was thus implied that by following the three steps, ones' position changes from causing the problem to solving it.

It was also found that 'the consumers' was a key 'categorisation' (Bacchi 2009: 9) in MAX's articulations of this problem-solution complex. For example, 'the consumers' were highlighted during a video presentation, in which the company's CRO and CSO asked the audience: "*So, who is*

[11] The anonymous customer number 6 (AC6) was asked whether he thought about the climate, and not specifically about carbon offsetting, when buying food.

going to stabilise the climate? Is it you, is it me, is it the politicians?" His own reply to the question was: "*I think it is the consumers. If we give them the powers to do so, we can help them slay the monstrosity of climate change. If we give them 'climate positive' products in their hands.*" (MAX 2018b, English in original).

Based on the representation of climate change as a problem solved together by actors on the market, it can be argued that carbon offsetting by planting trees responds to the company's problem *of being the problem*, so to say. By planting trees, the company turns its product (which was described as a major climate villain) into the solution itself. This problem representation also enables the company to communicate to its customers that they contribute to solving the problem by purchasing the company's products – including products such as beef burgers, which typically are associated with relatively high levels of GHG emissions. The idea of how the consumers improve the climate by buying burgers was apparent in the CEO's and the Vice President's (VP) introductory statement in the 'climate positive' brochure: "*[…] when you eat a burger from MAX the climate will be better than before you ate it.*" (MAX 2018a: 3, my translation). The same logic was also apparent in the sub-title of the same brochure: "*Every bite contributes to a better climate*" (MAX 2018a: 1, my translation). MAX's CEO and VP also encouraged others to replicate the 'climate positive' model:

"[…] *the most important thing we can do in the climate question is to inspire others to do more. What if in the future we can also buy climate positive sofas, climate positive clothes and climate positive mobile phones? Then consumers can become climate heroes by choosing climate positive products.*" (MAX 2018a: 3, my translation).

Apart from illustrating the importance of scaling up 'climate positive' the quote further demonstrates how significant the interplay between companies and consumers is in this representation of the problem. The quote indicates that consumer power is a central factor in the solution to the climate change problem, since consumers need to make choices of products that are good for the climate in order for the model to work. In turn, this presumes consumers that are willing, able and have the means to make consumption choices 'for the climate'. It can therefore be pointed out that this solution puts responsibility, not only on companies, but on individual consumers to make 'the right choices' in order for the climate change problem to be solved.

ZeroMission

ZeroMission's representations of climate change as a 'market problem' with corresponding 'market solutions' were generally similar to those articulated by MAX. Carbon offsetting was also here described as a way for businesses and organisations to take 'direct responsibility' for their emissions (ZeroMission 2019: 12). Offsetting was described as a form of self-imposed payment for 'external costs' – i.e. costs that are associated with harming the environment – that provides an economic incentive to emit less (ZeroMission 2019: 12p). The argument here was that the market system thus far has failed to make actors pay for these external costs and that companies therefore themselves should take responsibility by paying for carbon offsetting (ZeroMission 2019: 12). It was argued that all companies and organisations contribute to causing climate change through GHG emissions and that actors that do not offset their emissions fail to take responsibility (ZeroMission 2019: 13). 'Responsibility' was thus identified as a 'key concept' (Bacchi 2009: 8) that gave meaning as to *why* actors should buy carbon offsetting.

The individual consumers' role in solving the climate change problem was mostly referred to by ZeroMission in terms of how Swedes increasingly demand products and services from companies that take responsibility for lowering their climate impact. This was for example apparent in how the company described that carbon offsetting is a competitive advantage that companies can benefit from (ZeroMission 2019). It was also underlined that Swedish consumers, clients and partners prefer to buy products and services that preserve the planet (ZeroMission 2020a; ZeroMission 2020b, ZeroMission 2020c). That products and services can *benefit* the planet also mimics the idea of 'climate positive' – that buying something can improve the state of the planet or the climate.

Thus, both MAX and ZeroMission made the case that companies and consumers can be part of solving the problem of climate change by making 'the right choices for the climate'.

The customers

The customers had more varied responses regarding their own and the restaurant's role in solving the climate change problem. The large majority of the customers were aware that MAX practice carbon offsetting but only three people said that carbon offsetting, or the climate itself, is a factor when they make food-related choices. Some customers had doubts that carbon offsetting had an impact on the climate, or that the company could have a positive climate impact by planting trees. However, six

customers said that even though they do not actively think about carbon offsetting themselves, it is good that the company offsets its emissions. My interpretation is that this signals that those customers recognised carbon offsetting as a way for the company to take responsibility for its climate impact, even if the customers did not describe themselves as active participants in that process.

Among the customers that did not think about carbon offsetting when choosing food products there were variations in how they reasoned. As illustrated in the previous complex, one of the customers (who did not specifically visit MAX because the food had been carbon offset but still thought that it was a good thing) questioned the logic of consumption as a driving force for solving climate change. He said that: "*[…] then we would be able to consume*[12] *even more and just plant lots of trees. There is a limit there of course.*" (AC12 2020, my translation).

Another customer said that the carbon offsetting aspect did not impact his food choices and he questioned the restaurant's 'climate positive' approach as he stated that: "*[…] meat is not environmentally friendly I think, as far as I know.*" (AC1, 2020, English in original).
Another customer said that even though she does not visit MAX because the food has been carbon offset, she still thinks that it is good that the company does it:

"*I honestly think that [carbon offsetting] probably isn't the primary reason. I think it's a good finesse, so to say, but it's not the primary reason why I eat here. It's because I like the taste and the food is good.*"

She continued: "*I like the idea of companies looking at how they can affect their climate footprint, […] just because as a company it's much easier to influence than as a private person. […] I mean, if more companies were to do so, it would affect much more than if private individuals [did so].*" (AC3 2020, my translation, my edit in brackets).

Thus, to a certain extent, the customers expressions contrasted the representations made by the two companies. That customers actively choose the best products from a climate perspective was not unanimous, even if several thought that carbon offsetting was a good practice.

[12] Translated from the Swedish word "förbruka" which can mean to consume, expend, use up, spend or exhaust

6.1.2.2 Silences, contradictions and impacts of climate change as a 'market problem'

One of the most striking silences in how the problem was represented as a 'market problem' was how the focus on companies and consumers did not leave much space for discussions about the role of public actors. There were some exceptions to this, mainly by ZeroMission. The responsibility of governments and elected officials in relation to citizens was for instance indicated in a paragraph arguing that people are likely to make choices of products, workplaces *and political parties* based on perceptions of whether companies, employers *and politicians* acknowledge people's concerns regarding climate change (ZeroMission 2019: 37). Political accountability was also indicated in a list of climate goals that have been set internationally, in the EU and by the Swedish parliament (ZeroMission 2019: 16). It could also be argued that 'the public' was implicitly present by referring to the Paris Agreement, although the private sectors' *responsibility* and *ability* to respond to climate change remained in the foreground. Other than that, public actors were largely absent – or their role downplayed (MAX 2018b) – as climate change was represented as a 'market problem'.

Moreover, MAX's focus on both companies and consumers as important actors in climate change mitigation seemingly placed these types of actors on an equal footing in terms of the responsibility for implementing the solution. In doing so, my interpretation is that this takes focus away from alternative ways of thinking about the problem (Bacchi 2009: 12) in which companies could take greater responsibility for lowering their emissions. For example, MAX could choose to not sell products that have a disproportionately high climate impact. Over 50% of MAX's total GHG emissions stemmed directly from their beef products in 2017 (MAX 2018c) and if the company would take beef off the menu it would have a significant effect. Other (perhaps less radical) alternative solutions could be to nudge customers towards meals with less climate impact, e.g. by placing vegetarian and vegan meals first on the menu or only have advertisement for non-beef products. If more emphasis was put on the company's responsibility, solutions such as removing certain products from the menu or nudge customers towards products with lower climate impact might seem like necessary steps to take in order for the company to act 'responsibly'. However, as it stands, by articulating that it is the consumers that are going to stabilise the climate by buying 'climate positive' products, MAX can continue to supply a full range of products, regardless of GHG intensity, and let the customers make a 'choice for the climate'. It should also be noted that all products on the menu currently are advertised as 'climate positive' regardless of how much or little GHG emissions they generate. In principle and in terms of climate impact, this means that there is no incentive for the

customer to opt out from choosing a beef burger, since "Every bite contributes to a better climate" (MAX 2018a: 1) according to the company.

Finally, both ZeroMission and MAX stated that carbon offsetting works as an internal environmental tax, that makes it costly to emit GHGs. A somewhat contradictory argument was found, as MAX's CSO and CRO in the video presentation of 'climate positive' explained that carbon offsetting by planting trees is "*pretty cheap*" (MAX 2018b). He continued to explain that the company expected increased sales because the company's customers would reward the initiative. His conclusion was that carbon offsetting by planting trees would be "*a really good business*" (ibid.). Similarly, ZeroMission also described carbon offsetting as a lucrative investment in a company's trademark, yielding loyal customers and increased sales (ZeroMission 2019).

6.1.3 'Tree plantation is currently the only viable solution – climate change as a deforestation problem'

In this problem-solution complex, two connected problem representations were identified in the analysis of the companies' websites. The first framing was that planting trees currently is the only available option for achieving negative emissions. The second narrative was that deforestation is one of the major causes of climate change, and therefore, that it is essential to plant more trees.

This latter aspect of the problem representation was tied to companies in the food industry in particular, as it frequently was mentioned that most deforestation occurs because of land-use change, from forest land to agricultural land for cultivation of food crops (MAX 2018a: 10, ZeroMission 2019: 26p). It was also argued that most of the global deforestation occurs in tropical regions (ibid.), which further strengthened the argument for tree planting projects in countries in the GS – as a way of countering deforestation where it occurs.

Planting trees in the GS was also presented as a cost-effective option for companies that want their climate impact to be 'neutral' or 'positive' (MAX 2018a: 13, MAX 2018b, ZeroMission 2019: 47, ZeroMission 2020d). In addition, ZeroMission argued that carbon offsetting by planting trees have benefits in terms of being easy for companies to communicate, as "*the tree in itself is a powerful symbol*" (ZeroMission 2020d, my translation).

As for the customers, the most apparent finding was that even though many knew that MAX carbon offsets, very few had an idea about *how* that occurs. Several customers also questioned the effects that carbon offsetting by planting trees has on the climate.

6.1.3.1 The wider story of tree plantation as 'the only viable solution'

Because the importance of CDR was emphasised in the first problem-solution complex, carbon offsetting by planting trees was largely presented as a necessity in this one. Both biochar and bioenergy with carbon capture and storage (BECCS) were brought up by MAX (2018a: 12, 2018b) as potential future tools for negative emissions. However, planting trees in the GS was described as the only *currently* viable carbon offsetting solution that adequately responds to the problem (MAX 2018a: 12 and MAX 2018b). There were several reasons provided for this.

Offsetting by planting trees was promoted as the best way to carbon offset by both companies because trees can capture carbon (MAX 2018a: 10, ZeroMission 2019: 28, ZeroMission 2020d). ZeroMission highlighted that carbon offsetting by planting trees is different from other methods because "*trees restore the climate*" (ZeroMission 2019: 8, 47). Planting trees was also described in terms of being one of the most "*effective methods*" to carbon offset because it both reduces emissions and absorbs carbon dioxide (ZeroMission 2020d). Similarly, MAX described planting trees as a good method because planting trees is an "*efficient way to vacuum the atmosphere on carbon dioxide*" (2018a: 10, my translation).

It was also emphasised that planting trees in countries in the GS is particularly important due to the deforestation of tropical forests, which further exacerbates the climate change problem. Deforestation was typically tied to agriculture and food production. For instance, ZeroMission stated that: "*Agriculture is still the largest reason for the rapid deforestation, which mostly occur in tropical countries.*" (ZeroMission 2019: 27, my translation). It was also argued that the connection between agriculture and deforestation makes tree planting projects particularly "*attractive*" for companies within the food industry, since it is easy to tie tree planting projects to the products of such companies (ZeroMission 2020d). In close line with this argument, MAX (2018) described planting trees as a way for companies, particularly in the food industry, to counter the process of deforestation, as illustrated in this quote:

"*Today, agriculture and food production are the main causes of deforestation. It feels extra important to us who are part of the food industry to help bring back some of the trees that have now disappeared.*" (MAX 2018a: 10, my translation).

Moreover, arguments for why carbon offsetting by planting trees has to occur in other countries than Sweden were identified on ZeroMission's website. Several of the arguments were tied to the criterion for 'additionality'. It was argued that offsetting within Sweden would not fulfil the additionality criterion because: 1) Swedish laws require replantation of trees after clearing and 2) because Sweden has a cap on emissions (ZeroMission 2020d). The company also stated that the there are no certified carbon offsetting projects within Sweden, but that this might change with the implementation of the Paris Agreement (ibid.). The references to the additionality criterion can be seen as a type of 'background knowledge' (Bacchi 2009: 5) that underlies the problem representation, in that it supports the argument that carbon offsetting in Sweden would be infeasible.

Another type of argument was that it would be inefficient to implement carbon offsetting projects by planting trees in Sweden (ZeroMission 2020d). Projects in countries in the GS were described as more "*cost-effective*" and the company expressed that projects in Sweden would undermine one of the main principles of carbon offsetting – to implement the "*cheapest*" measures first (ibid.). Another principle of carbon offsetting was also pointed out – that you should plant trees where they grow fastest. The company described that trees grow much faster in the tropics and the sub-tropics and therefore sequester carbon more efficiently there than in the GN (ibid.). I interpret these references to principles of different types of efficiency as types of 'presuppositions' (Bacchi 2009: 5) that make the argument for planting trees in the GS meaningful by supporting it as a better practice than carbon offsetting by planting trees in the GN.

The customers

The most striking feature of the customers' expressions in this problem-solution complex was that no one was aware of the fact that MAX offsets its emissions through a tree planting project in Uganda. Eight of the customers had no idea about how the company's carbon offsetting was carried out in practice. Two of the customers were not sure but thought that the company planted trees (AC4, AC12) while only one customer was aware that the company's carbon offsetting is done through planting trees "*in Africa*" (AC7, my translation).

When informed that the carbon offsetting takes place by planting trees, some customers were unsure about the effects that planting trees would have on the climate. One customer asked: "*[…] how much does it help to plant forest? I don't know*." (AC5, my translation, my edit in brackets).

Another customer said: "*Yes, that's positive. Now that you have asked about this, we will of course think about it in the future, that we are doing a good deed by going here to eat."* He then considered the impact it would have on the climate: "*How much it means in reality, it's probably like a drop in the ocean. Because it's a huge problem. […] It's a good deed but I don't think it affects the climate very much.*" AC10, my translation). The same customer also added:

"*I have one thing I want to add when it comes to planting trees. I want to compare it to the trees that are cut down. For example, what has been reported about now in Brazil, where the forest is deliberately cleared to get arable land instead of forest land. […] I think that is much, much, much worse, and can never be compensated by this planting that we are talking about.*" (AC10, my translation).

Another customer both thought and hoped that carbon offsetting by planting trees in the GS was a good solution. He also added that it is a difficult question and highlighted that a forest project has complex effects in the place where it is implemented:

"*The problem is perhaps geographical. If you plant forest somewhere else in the world, it can be good, but you end up in a very complex analysis, as it affects that part of the world – but maybe it doesn't affect the industrialized western world in the same way […].*" (AC6, my translation, my edit in brackets).

Perhaps the most sceptical customer did not seem to have anything against carbon offsetting per se but was specifically against carbon offsetting by planting trees: "*Things that I am negative towards, so to say, is green washing. That you replace fossil emissions by planting trees, which may not even stand for 30 years.*" The customer seemed to question the permanence criterion as he doubted whether it was guaranteed that the trees would be preserved. He went on to say that other types of carbon offsetting could be a solution to the climate change problem:

"*Absolutely, if done correctly. Maybe not by planting trees but to capture carbon dioxide at the source of emissions and pump it down into the bedrock and things like that. But maybe not trees necessarily. Something that lasts for 1000 years.*" (AC7, my translation).

Finally, one of the customers expressed a lack of understanding of the connection between the Swedish hamburger restaurant and a tree planting project in Uganda, but nevertheless was in favour of planting trees: "*I did not really understand the connection between MAX in Sweden and planting trees in Africa, but planting trees is always good.*" (AC11, my translation). This articulation resonates with the idea of trees as powerful symbols that are easy to communicate, as expressed by ZeroMission (2020d). Even though this customer had difficulties of grasping the logic of MAX's carbon offsetting initiative, he had a positive view of planting trees.

6.1.3.2 Silences, contradictions and impacts of tree plantation as 'the only viable solution'

Without taking anything away from the importance of preventing deforestation, some of the companies' background knowledge that supported this problem representation was incoherent between the two websites. There was a discrepancy in terms of how the two companies described to what degree deforestation causes GHG emissions and global warming, which makes the underlying 'assumptions' (Bacchi 2009: 5) of the claims somewhat ambiguous. While MAX stated that: "*Due to rapid deforestation, the forests have gone from binding carbon to becoming the largest sources of greenhouse gas emissions.*" (MAX 2018a: 10, my translation), ZeroMission stated that: "*Deforestation is the second largest source of emissions, when trees actually have an important role as carbon sink*" (ZeroMission 2020d. The 'background knowledge' (Bacchi 2009: 5) in support of carbon offsetting via tree planting projects in the GS was thus somewhat inconclusive.

Moreover, the argument that carbon offsetting through tree planting projects in Sweden would not fulfil the additionality criterion, because Swedish laws require trees to be re-planted after clearing, left certain questions unanswered. It seemed to indicate that in order for carbon offsetting by planting trees to work at all, there has to be no- or weak laws in place regarding re-plantation of trees and forests. Also, it was not clearly explained how this would be relevant for forest protection projects, or afforestation projects, as it only seems significant for reforestation projects.

6.1.4 'Carbon offsetting and its co-benefits – climate change mitigation as a sustainable development intervention'

In this problem-solution complex, benefits of carbon offsetting other than those directly related to climate change mitigation were underscored. I use the term 'sustainable development benefits' or 'co-benefits' to refer to these broadly described impacts of tree planting projects in the GS. I use these terms because they align with those that ZeroMission used, as the company both used the expression "*co-benefits*" (ZeroMission 2020d) and strongly emphasised that the projects contribute to "*sustainable development*" for people in the GS (ZeroMission 2019: 8, 17, 26, 31, 32, 35, 42, 46). The examples of co-benefits articulated by the two companies included a wide range of aspects that are further elaborated below.

Both companies described that while carbon offsetting responds to a demand by actors in the GN for ways to reduce their climate impact, tree planting projects simultaneously responds to problems in the GS (MAX 2018a: 10, 2018b, ZeroMission 2019: 32). Co-benefits of projects were specifically tied to support for resilience[13] (MAX 2018b, ZeroMission 2019, ZeroMission 2020a, ZeroMission 2020d) and climate change adaptation[14] (ZeroMission 2019, ZeroMission 2020a, ZeroMission 2020d) for stakeholders in the GS. The descriptions of the outcomes of carbon offsetting projects was largely in the shape of a win-win situation, where everyone benefits from the Plan Vivo certified tree planting projects. Overall, the co-benefits received much more attention on ZeroMission's website than it did on MAX's website, although the co-benefits were highlighted there too.

In terms of the customers narratives about the impacts of tree planting projects in the GS, the key finding was that there largely was a lack of awareness regarding the project that MAX buys carbon offsetting from. It was difficult for customers to describe where it is implemented, who the people that plant the trees are, how these people are remunerated for their work, whether they benefit or not from the project and what types of trees that are planted. Generally, the customers' expressions about the implementation of three planting projects were abstract or vague.

[13] IPCC (2018) defines resilience as: "The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation."
[14] IPCC (2018) defines adaptation as: "[…] the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities."

Below I describe the main shapes of the arguments for carbon offsetting by tree planting projects in the GS as a solution to 'sustainable development problems'.

6.1.4.1 The wider story of climate change mitigation as a 'sustainable development intervention'

In this problem-solution complex, narratives of an enhanced quality of life for the people in the GS who participate in tree planting projects were central. The aspects that were included in the 'sustainable development benefits' were often diverse and sometimes anecdotal, as illustrated in this quote from ZeroMission's brochure:

"*[…] when we visit the projects with our customers, we see the differences with our own eyes. Participants more often have metal roofs instead of grass roofs, bricks in the walls instead of clay, windows on the houses, more frequent access to bicycles or even mopeds, have mobile phones and more access to food. The children get the opportunity to go to school as school fees can be paid.*" (ZeroMission's 2019: 32, my translation)

In this example there was no reference to an actual project. Instead, these benefits were described as the overall effects of the Plan Vivo certified tree planting projects. The presentation of all the projects as beneficial to stakeholders in the GS was also identified on the company's main website, where it was stated that "*All our projects are locally anchored and contribute to sustainable development and increased resilience.*" (ZeroMission 2020a, my translation). In addition, ZeroMission (2019: 32) described that carbon offsetting through tree planting projects contributes *more* in terms of sustainable development benefits than it does in terms of being a climate action. It was also argued that companies that buy carbon credits through ZeroMission often think of the projects' co-benefits and contributions to climate change adaptation as "*just as important*" as the reduced emissions (2020d). The company suggested that many businesses probably would be willing to finance these projects even if there was no carbon offsetting aspect involved (ZeroMission 2019: 32).

As already apparent in some of the quotes above, it was also pointed out that the projects specifically contribute to enhanced resilience (MAX 2018b, ZeroMission 2019: 7, ZeroMission 2020a, ZeroMission 2020d) and climate change adaptation in the communities where the projects are implemented (ZeroMission 2019: 8, 26, 29, 46, 47, ZeroMission 2020a, ZeroMission 2020d). For

instance, MAX referred to the Plan Vivo certification as a way of ensuring that there are "[…] *local benefits, like fighting poverty or increasing local resilience*" (MAX 2018b) and also stated that "*It feels extra important, because these are people who already are exposed and vulnerable to climate change.*" (MAX 2018a: 10, my translation).

Both companies clearly distanced themselves from tree planting projects that do not have positive co-benefits or that are harmful to people and the environment (MAX 2018a: 10, ZeroMission 2019, ZeroMission 2020d). ZeroMission in particular seemed to have picked up on critiques against monocultures and projects that do not fulfill the criterion for sustainable development benefits, as the company on several occasions made distinctions between such projects and the Plan Vivo certified projects that it promotes (ZeroMission 2019: 34, 2020d). This distinction can be thought of as a kind of 'binary' or 'dichotomy' (Bacchi 2009: 7) where there are 'good projects' and 'bad projects' and where the companies ensured that the projects they support are of the 'good kind'.

Moreover, I interpret 'sustainable development' as a 'key concept' (Bacchi 2009: 8) in this problem-representation, as it was used to describe all the different aspects of the projects that are assumed to improve people's lives in the GS. Examples of meanings that were given to this concept were poverty reduction, food security, improved health, local economic development, entrepreneurship, knowledge transfers and education (ZeroMission 2019: 32).

The 2030 Agenda and the SDGs were also referenced (ZeroMission 2019: 35, 46). Similarly, these functioned as kinds of 'background knowledge' (Bacchi 2009: 5) that provided a backdrop and gave legitimacy to all the aspects that were described as linked to participating in Plan Vivo certified projects. This was particularly apparent in statements such as this:

"*Carbon offsetting through Plan Vivo projects makes a clear contribution to the global goals and is an easy way to broaden the sustainability work, while <u>The Agenda 2030 work also is a way of identifying all the positive aspects of Plan Vivo projects</u>.*" (ZeroMission 2019: 35, my translation, emphasis added).

The Plan Vivo certified projects were described as: "*[…] contribut[ing] directly to nine of the global goals*" (ZeroMission 2019: 35, my translation, my edit in brackets) and examples of aspects that were tied to the SDGs included: "*Improved living conditions for local communities, adaptation to climate*

change, biodiversity and restored environment." (ZeroMission 2019: 46, my translation). Here it was also stated that it is: "*The conditions and wishes of the smallholder farmers that are in focus*." (ibid.) which – as I interpret it – signals that the demand for these projects is not just driven by actors in the GN that want to buy carbon offsetting, but also by smallholder farmers in the GS.

My interpretation of this representation of the win-win situation is that it in itself functions as a type of 'background knowledge' (Bacchi 2009: 5) that supports the problem representations in the other problem-solution complexes. It gives the other complexes meaning *beyond* the climate change mitigation aspect of carbon offsetting for actors in the GN. Together, the arguments for carbon offsetting through Plan Vivo certified tree planting projects were thus presented in the shape of a holistic approach that benefits everyone.

The customers

As in the previous problem-solution complex, the most apparent finding here was that there largely was a lack of awareness about how MAX's carbon offsetting impacts the people who implement the project. Most people only made abstract or vague descriptions of how they imagine that the tree planting project is implemented. Several said that it was something that they never had considered: "*Well, I imagine that there are people that go and put the trees out somewhere but exactly how they have chosen where to plant or exactly who does it, I have never actually thought about that.*" (AC13, my translation).

Another example on the same theme: "*Well, I actually don't know what I see in front of me. I have no image of it like that. I would probably say that I only imagine trees being planted that would otherwise be harvested or used in some form of food production, I think but yeah…*" (AC3, my translation).

Although many customers did not have a clear idea about how the project is implemented, some said that they hoped that the conditions and the remunerations are fair: "*No, I haven't actually thought about that. But I hope that those who plant the trees get paid well. […] And that it is done on good terms.*" (AC4, my translation, my edit in brackets).

The one customer that knew that MAX offsets its emissions through a tree planting project in Africa also guessed that smallholder farmers plant the trees, which he thought could be a good thing in itself,

even if he questioned carbon offsetting by planting trees as a long-term solution to climate change (AC7).

Another customer also thought that the project could benefit the people who plant the trees, depending on what types of trees that were planted. She argued that if the trees could be used in e.g. the forestry sector it could generate job opportunities, which would be a good thing (AC2). Her reasoning was thus very much in line with both companies' representation of how tree planting projects can respond to problems among stakeholders in the GS.

6.1.4.2 Silences, contradictions and impacts of climate change mitigation as a 'sustainable development interventions'

While the arguments for sustainable development benefits and the win-win situation were visible on ZeroMission's website, they were less apparent on MAX's website. Meanwhile, the customers were largely unaware of the practical aspects of tree planting projects – such as where the trees are planted, by whom and how it impacts the stakeholders in the GS. My interpretation of the discrepancies here is that the 'distance' to the project increased along the chain of actors. Seemingly, the co-benefits went from being a central part of the communication on ZeroMission's website, to a less central part of the communication on MAX's website, to becoming a quite invisible aspect of the customers' ideas of how MAX's menu becomes 'climate positive' and how carbon offsetting through tree planting projects in the GS is carried out in practice.

7 Discussion

Climate governance is currently taking place in many different shapes and forms, for example by private actors and through private governance initiatives (Jordan et al. 2018: 8). Recent studies also point out that it is expected for private initiatives to have a significant part in the implementation of the Paris Agreement (Andanova and Sun 2019: 99). This case-study illustrates an example of how two Swedish companies engage with climate change mitigation and the implementation of the global climate goals. The study has analysed how MAX and ZeroMission communicate these initiatives to the public through their websites and how some of MAX's customers reason regarding the restaurant's approach to carbon offsetting by planting trees in the GS.

The analysis identified four main problem representations on the companies' websites. These representations reinforced each other and together they created a strong narrative for carbon offsetting by planting trees in countries in the GS. Both MAX and ZeroMission frequently underscored that in order to reach the targets of the Paris Agreement, it is necessary to reduce the levels of GHGs in the atmosphere by removing carbon dioxide that already has been emitted. This way of representing the climate change problem strengthened the case for carbon offsetting by planting trees, as the companies emphasised that planting trees currently is the only viable option for absorbing carbon dioxide from the atmosphere. Moreover, MAX made a case for offsetting beyond 100% of emissions and the company argued that the climate problem only can be solved by offsetting *more* than you emit. Here, the representations of climate change as a 'carbon dioxide removal problem' and as a 'market problem' reinforced each other as the company argued that consumers can solve the climate change problem if companies provide them with 'climate positive' products. Furthermore, the two companies expressed that actors within the food industry has a particular stake in carbon offsetting by planting trees because food production is one of the main causes of deforestation. The representation of climate change as a 'deforestation problem' further strengthened the case for offsetting by planting trees in the GS, as the two companies expressed that it is important to plant more trees (especially in tropical regions) in order to solve the climate problem. Finally, both companies argued that carbon offsetting by planting trees in the GS not only is a measure for mitigating climate change, but that it also is a solution to 'sustainable development problems' in the GS. Here, the analysis identified a win-win narrative in which everyone involved benefits from carbon offsetting.

Although the topic of reducing emissions was central on both companies' websites, the analysis found a discrepancy in that ZeroMission seemingly defined reduced emissions in absolute terms, while MAX defined reduced emissions in relation to its turnover. MAX has thus created a model where the company's emissions increase year by year (albeit not at the same rate as the turnover) while advertising a 'climate positive' menu. This means that the need for carbon offsetting by planting trees in the GS has increased on a yearly basis, which is one of the identified impacts of the implementation of the company's 'climate positive' approach. As for the customers' perspectives, many thought that offsetting emissions was a good start in terms of addressing climate change or that it was better than not doing anything to address the issue. However, several of the customers stated that the most important thing the company can do is to reduce emissions as much as possible and that carbon offsetting only serves as a compliment to that. The analysis also found that there was little knowledge among the customers as to how the restaurant makes its menu 'climate positive'.

The customers have a central role in the implementation of the 'climate positive' approach, as MAX expressed that the climate gets improved when people buy food at the restaurant. By carbon offsetting through planting trees, MAX has thus managed to communicate that its products are the very solution to climate change. The representation of climate change as a problem best solved through consumption enabled the company to communicate to its customers that they are solving the problem of climate change when buying products such as beef burgers, associated with high levels of GHG emissions.

As mentioned in the introduction, MAX was rewarded with the UN Global Climate Action Awards at COP25 in Madrid in 2019. The recipients of the award were described as game-changing, ground-breaking, outstanding examples and as "[…] some of the most impressive climate solutions worldwide." (UNFCCC 2019a). In 2015, the UNFCCC (2020c) launched its own initiative called 'Climate Neutral Now' to encourage everyone in society to help with the implementation of the Paris Agreement. The language on the UNFCCC website regarding how private companies and individuals can help solve the climate change problem largely resembles that of the two companies in this thesis. For instance, UNFCCC (2020c) encourage private companies and individuals to 1) measure 2) reduce 3) and offset emissions. Actors are also encouraged to take 'responsibility now' by compensating for emissions that they 'cannot currently avoid' (UNFCCC 2020c), mirroring the language presented in the results of this thesis. However, in contrast to UNFCCC's (2020c) initiative, which calls for 'climate-neutrality', MAX encourages other companies and private individuals to become 'climate

positive'. This illustrates that the company's 'policy' or 'solution' is not entirely unique but that it has been adjusted when enacted in a new context. Stephen Ball (2015: 467) refers to this as the 'formative role' of actors that make and re-make policy in different places. This strengthens the case for applying the WPR approach (Bacchi 2009) to cases where policy is *enacted* in addition to cases where it is *made*.

There were also similarities between concepts discussed in the background chapter and in the results of this thesis. For instance, the analysis recognised arguments for standards and certificates on the voluntary markets as safeguards for 'high quality' carbon offsetting. In this case, the Plan Vivo certification was oftentimes described as a guarantee for fulfilling the criterion for sustainable development benefits for stakeholders in the GS. The findings resemble the descriptions of 'charismatic carbon' (Lehmann 2019) and 'boutique carbon' (Lovell and Liverman 2010) that can enhance the virtue of carbon credits (Paterson and Stripple 2012).

In a study of the relationship between carbon markets and 'professional spaces', Lovell and Ghaleigh (2013: 512) have examined the "sometimes unexpected" locations in which carbon markets are manifested. The authors ask how carbon has been integrated as a commodity in different professions (Lovell and Ghaleigh 2013: 512) and encourage others to explore "the new (and often surprising) professional spaces where the commodification of carbon has become relevant." (Lovell and Ghaleigh 2013: 515). This thesis has attempted to answer that call, by studying the arguments of a "somewhat unexpected" actor in a climate governance setting – a Swedish fast food restaurant that launched the world's first 'climate positive' menu in 2018 – as well as by looking at how the company's own customers and its carbon offsetting intermediary reason regarding tree planting projects in the GS.

8 Conclusion

In conclusion, four problem-solution complexes were identified by using the WPR approach (Bacchi 2009). These complexes were composed of three different problem representations of climate change and a fourth problem representation that gave meaning to the other three by broadening the implications of carbon offsetting in terms of contributions to sustainable development in general and to climate change adaptation and resilience more specifically. The four complexes reinforced one another and together they created a strong narrative for carbon offsetting by planting trees in the GS.

The first problem-solution complex illustrated the companies' arguments and underlying assumptions of climate change as a carbon dioxide removal problem. Here, both companies firmly stated that the levels of carbon dioxide in the atmosphere has to decrease in order for the climate change problem to be solved. The second problem-solution complex focused on the companies' expressions regarding the market as an appropriate institution for solving the climate change problem. Here, the companies' articulations of the roles of private actors and consumers in climate change mitigation were central. The third problem-solution complex centred on the companies' representation of tree planting projects as the only currently viable option for carbon sequestration. It also illustrated the companies' expressions as to why more trees should be planted, especially in tropical regions, in order to counteract deforestation and climate change. The fourth complex focused on the so-called 'co-benefits' of tree planting projects. It illustrated the companies' views on how these projects function as sustainable development interventions in the GS.

The customers' perspectives on the problem representations and prescribed solutions indicated that more research is needed in order to better understand whether consumers agree with carbon offsetting by planting trees in countries in the GS as a solution to climate change. The findings of this study imply that the discourse on how private actors and individuals can mitigate climate change is not entirely homogenous, as the two companies' problem representations of climate change partially were contrasted by the customers. The study also found that the customers largely were unaware of the practicalities of carbon offsetting, as the awareness was very limited in terms of how such projects are implemented and with what effects on project participants in the GS.

Finally, the results of this study show that the customers have a central role in the implementation of MAX's 'climate positive' approach. MAX supplies consumers with a full range of products, regardless of GHG intensity, and the customers are the ones that decide whether or not to buy food

with a high or low climate impact. Meanwhile, all the products on the menu are advertised as ‘climate positive’, which in principle means that from a climate perspective, there is no incentive for the customers to opt out from choosing a beef burger, since “Every bite contributes to a better climate” (MAX 2018a: 1) according to the company.

9 References

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Appendix 1 – Interview guide in Swedish

- Hej, jag skriver min masteruppsats om klimatet och undrar om jag får ställa några korta frågor om MAX klimatarbete? Det är anonymt och frivilligt och skulle vara till stor hjälp.
- Går det bra att jag spelar in? Det är bara jag och min handledare som kommer att lyssna på intervjun.
- Har du tänkt på att MAX klimatkompenserar sin meny?
- Gör klimatkompensationen att du tänker annorlunda kring vilken mat du väljer?
    - T.ex. att det känns mer ok att välja kött om det är klimatkompenserat, eller spelar det ingen roll?
    - Brukar du tänka något på klimatet när du väljer var du ska äta, eller spelar det ingen roll?
- Vet du något om hur MAX gör för att klimatkompensera för maten?
- I en reklamfilm för MAX så säger de att de ”klimatkompenserar genom trädplantering i Afrika”. Vad ser du framför dig när du hör det?
    - Vid tveksamhet: vilket slags landskap ser du framför dig, vilka slags träd, vem planterar dem?
    - Hur tror du människorna som planterar träden påverkas?
    - Skulle du vilja veta mer om hur det funkar?
- Har du hört begreppet klimatpositiv?
    - Vet du vad det betyder?
    - Tror du att produkter man köper, så som hamburgare, kan vara bra för klimatet?[15]
- Sista frågan: Tror du att det är en bra lösning på klimatfrågan med klimatkompensation, så som MAX gör?
- Är det något du vill tillägga?

[15] This question was not asked in the first round of interviews. I added it in the second round because the two questions above sometimes fell flat and did not generate reflections about the effects of buying climate positive products.

Appendix 2 – Interview guide in English

- Hi, I am writing my master's thesis on about the climate and I wonder if I can ask some short questions about MAX's climate work? It is anonymous and voluntary and would be very helpful.
- Is it okay for me to record the interview? Only I and my supervisor will listen to the interview.
- Have you thought anything about that MAX's carbon offsets its menu?
- Does carbon offsetting make you think differently about which food you choose?
    - E.g. that it feels more ok to choose meat if it is climate compensated, or does it not matter?
    - Do you usually think about the climate when choosing where to eat, or does it not matter?
- Do you know anything about how MAX carbon offsets the food?
- In a commercial for MAX, they say that they "carbon offset through tree planting in Africa". What do you see in front of you when you hear that?
    - In case of hesitation: what kind of landscape do you see in front of you, what kind of trees, who plants them?
    - How do you think the people who plant the trees are affected?
    - Would you like to know more about how it works?
- Have you heard the term climate positive?
    - Do you know what it means?
    - Do you think that products you buy, such as burgers, can be good for the climate?[16]
- The last question: Do you think it is a good solution to the climate issue with carbon offsetting, as MAX does?
- Is there anything you want to add?

[16] This question was not asked in the first round of interviews. I added it in the second round because the two questions above sometimes fell flat and did not generate reflections about the effects of buying climate positive products.