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The social dimension of sustainable transport: perceptions among Oslo's planners and politicians

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Signature…………………………………..…………..……

Date……………June 1, 2021……………………………

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Abstract

Sustainable development is at the top of the policy agenda in city and transport planning but is often criticized when it is implemented. The critique comes from people who argues that measures to improve environmental quality often leads to social injustice. For a measure to be sustainable, it needs to also include social sustainability, and thus reduce such skewed distribution. In this thesis, I examine if, and in that case to what extent, social sustainability is included and operationalized among planners and politicians within the transport sector in Oslo. In Oslo's municipal plan social sustainability is highlighted as an important factor for city development. The plan also emphasizes the development of a sustainable transport system and points out that the sector will have large changes in the future. The goal of this thesis is to shed light on what planners and politicians emphasize when using the term sustainable transport, and how social sustainability is included. Qualitative semi-structured interviews are conducted with ten key informants from different parts of the transport sector. The results show that climate and environment is often what planners and politicians first and foremost associate with sustainability, and that not everyone is well known with the term social sustainability. Despite this, all planners and politicians include different social factors in different degrees in their use of the term sustainable transport. The findings are discussed in light of the social sustainability research literature. The most prominent social aspects among planners and politicians in the transport sector is accessibility, equity, social cohesion and participation. The thesis shows that by providing sufficient and equitable access to public transport, the transport sector facilitates the opportunity for individuals and societies to satisfy their needs.

Sammendrag

Bærekraftig utvikling står høyt på den politiske agendaen i by- og transportplanlegging, men blir ofte kritisert når tiltak iverksettes. Det kommer imidlertid ofte kritikk fra grupper som mener at tiltakene som tar sikte på klima og miljø i mange tilfeller er sosialt urettferdige. For at et tiltak skal være bærekraftig må det også være sosialt bærekraftig, og skal derfor også minimere en slik skjevfordeling. I denne oppgaven ser jeg på om, og i så fall hvordan, sosial bærekraft er inkludert og operasjonalisert blant planleggere og politikere innenfor transportsektoren i Oslo. I Oslos kommuneplan er sosial bærekraft fremhevet som en viktig faktor for byens utvikling. Planen legger i tillegg stor vekt på utviklingen av et bærekraftig transportsystem, og det blir understreket at denne sektoren vil få store endringer fremover. Målet med oppgaven er å belyse hva planleggere og politikere vektlegger i deres bruk av begrepet et bærekraftig transportsystem, og på hvilken måte sosial bærekraft er inkludert. Kvalitative semi-strukturerte intervjuer er gjort med ti relevante aktører fra diverse deler av transportsektoren. Resultatene viser at klima og miljø ofte er det både planleggere og politikere først og fremst forbinder med bærekraft, og ikke alle er like godt kjent med begrepet sosial bærekraft. Til tross for dette, inkluderer alle planleggere og politikere forskjellige sosiale faktorer i forskjellige gradi deres bruk av begrepet bærekraftig transport. Funnene blir diskutert i lys av forskningslitteraturen på begrepet sosial bærekraft. De sosiale aspektene som vektlegges mest blant planleggere og politikere i transportsektoren er tilgjengelighet, rettferdighet, sosialt samhold og medvirkning. Oppgaven viser at ved å sørge for at alle har tilstrekkelig tilgang på kollektiv transport, legger transportsektoren til rette legge for at både individuelle og samfunnsmessige behov blir tilfredsstilt.

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1. Introduction

This thesis examines the understanding and operationalization of the concept sustainable transport in Oslo municipality. Sustainable transportation has become a concept often associated with reducing greenhouse gases in the transportation sector in an economically efficient manner. In order to understand the concept of sustainable transportation, one need to understand the meaning of sustainable development and transportation. Beginning with the latter, Rodrigues et al. (2016) describes transportation as one of the most important human activities in the world as it has a crucial role for the economy and connects spatial locations and people through the core elements of transportation: modes, networks, infrastructures and flows. Transportation is a multidimensional activity and has great economic, social, political, environmental and historical importance (Rodrigues et al., 2016).

Sustainable development is a contested concept. One of the most common definitions are found in the Brundtland Report from 1987 stating that sustainable development is development that "*meets the needs of the present without compromising the ability of future generations to meet their own needs*" (WCED, 1987). This notion rose to prominence on the policy agenda when it was recognized that economic growth is "*unsustainable on a finite planet*" (Purvis et al., 2018, p. 683). Social concerns only began to rise with the recognition of the disproportionately and differentially distribution of environmental externalities, both geographically and among groups (Eizenberg & Jabareen, 2017). Hence, it has often been criticized for primarily focusing on environmental protection and economic efficiency, while ignoring the social dimension (Murphy, 2012; Boström, 2012; Cuthill, 2009; Griessler & Littig, 2005; Hale et al., 2019; Pitarch-Garrido, 2018).

Likewise, sustainable transport has had a larger focus on environmental impacts than on social impacts (Uteng, 2007). The attention to social issues in the transport sector has mainly focused on inequitable distribution of benefits and costs in relation to environmentally sustainable transport, as well as transport-based environmental injustice upon minorities and the poor (Boschmann & Kwan, 2007). Nonetheless, literature on social sustainability suggests that the concept concerns more than unjust environmental challenges. It is a matter of social cohesion, participation, democracy, health, well-being and quality of life. The relationship between human activities and the built environment is emphasized by Næss (2015) who argues that human activities create the built environment which again will influence human

activities. Therefore, how humans influence the development of the built environment is important. Furthermore, a study by Eizenberg and Jabareen (2017) found that planners struggle to translate community needs and demands into plans and decision-making. Moreover, Uteng (2007) concluded that Norwegian transport policies do not sufficiently acknowledge social aspects such as vertical equity, stakeholder participation, and diversity in regard to income and social class. Immigrant communities and their mobility needs are forgotten or overlooked, and thus the opportunity to empower them to become active agents in their host country diminish (Uteng, 2007). Andersen and Skrede (2017, p. 585) argued that despite aiming for sustainable development, Oslo has since 1624 been characterized by *"socio-economic residential segregation"*. More recently, political debates and media in Norway has been full of debates on tolls, zero-emission-zones, removal of parking spaces and other measures to encourage sustainable transportation. Such debates have been based on the notion that the measures will benefit the rich, and undermine the poor (Rystad, 2021; Lund, 2019; Nilsen & Schibevaag, 2019; Spence, 2021). It even resulted in a new political party called The People's Action No to More Road Tolls (Folkeaksjonen nei til mer bompenger). Based on this, the thesis will focus on the social dimension of sustainability within the transport sector. This does not mean that the social dimension is understood as more valuable than the other two. However, balance between the three dimensions cannot be achieved if one of them are forgotten (Boschmann & Kwan, 2007).

Oslo is an interesting case in point for this topic. Firstly, it has been considered a forerunner when it comes to sustainability (Næss, 2014). Oslo has at several occasions received recognition for its work in the sustainability field. Among others, the capital received the European Green Capital Award in 2019 (Oslo municipality, n.d.). Secondly, as the capital of the welfare state Norway it might be difficult to imagine that this is relevant for Oslo. At a global level, Norway has relatively low levels of inequality (OECD, 2021). However, inequalities are increasing, and at a domestic level, Oslo is one of the municipalities with highest inequality rates (Tuv, 2019). As plans for future development are constructed, it is important to take these facts into account to not aggravate this issue. Oslo has a mission to be a competitive and sustainable region in Europe considering transport planning (Municipality of Oslo & County of Akershus, 2015). In order to reach this, social sustainability also needs to be included.

1.1 The objective and research question

The objective of this thesis is to generate knowledge about how the concepts of social sustainability and sustainable transport are understood and operationalized by planners and politicians in Oslo and thereby to shed light on the importance of including social concerns in sustainable transport planning. The main research question that reflects the objective of the thesis is: *How (if at all) is the social dimension included and operationalized in the planning for sustainable transport in Oslo?*

I address this research question through conducting an analysis of important transport planning documents. This is followed by a thematic analysis of ten interviews of key informants from two main groups, planners and politicians. The purpose of the thesis is to contribute to a growing body of literature on social sustainability.

The thesis is structured as follows: Chapter 2 will give insight to previous research on sustainable transportation and social sustainability. The chapter presents the key social concepts used in the thesis. Chapter 3 give a description of the research design and process. Chapter 4 provides a reading of important planning documents for transport development. Chapter 5 presents and discuss the findings from the interviews conducted in relation to social sustainability literature. Chapter 6 present the concluding remarks from the research to provide an answer for the research question.

2. Social sustainability in the literature

Social sustainability is a contested concept, vaguely defined and difficult to measure. It is described as a dynamic concept, not constant nor absolute, and often neglected or ignored (Dempsey et al., 2009; Lehtonen, 2004; McKenzie, 2004; Littig & Griessler, 2005; Boström, 2012; Cuthill, 2009; Murphy, 2012; Hale et al., 2019). This calls for discussion and communication between disagreeing actors on what social sustainability is (Boström, 2012; Dempsey et al., 2009). A large number of terms used to define social sustainability has accumulated in the literature, some of which largely overlap each other. To enumerate them all would be too comprehensive for this thesis. Thus, I draw on important theoretical perspectives from among others Cuthill (2009) and Dempsey er al. (2009) as I tempt to put social sustainability in the context of transport part of an urban built environment.

2.1 Working together for social sustainability

Cuthill's (2009) conceptualization of the social dimension of sustainable urban development entails four interdependent and reinforcing components as illustrated in figure 1. The concept is based on two premises: 1) *"environmental problems are first and foremost social problems"* and 2) *"economics is meant to serve people, rather than a view that people serve economic interests"* (Cuthill, 2009, p. 366). These premises come from his claim that social issues have emerged with the rapid urban growth in Australia and challenges all levels of government as well as private actors. The result is what Cuthill (2009) describes as a 'simple' and primarily social sustainability conceptual that builds on the importance of governance and informed by public policies and practices. Accordingly, he enlisted four components with each their 'role' in social sustainability: social capital as a theoretical starting point, social infrastructure as an operative perspective, social justice and equity as an ethical imperative and engaged governance for 'working together'. In the following sub-chapters, each of these aspects will be outlined.
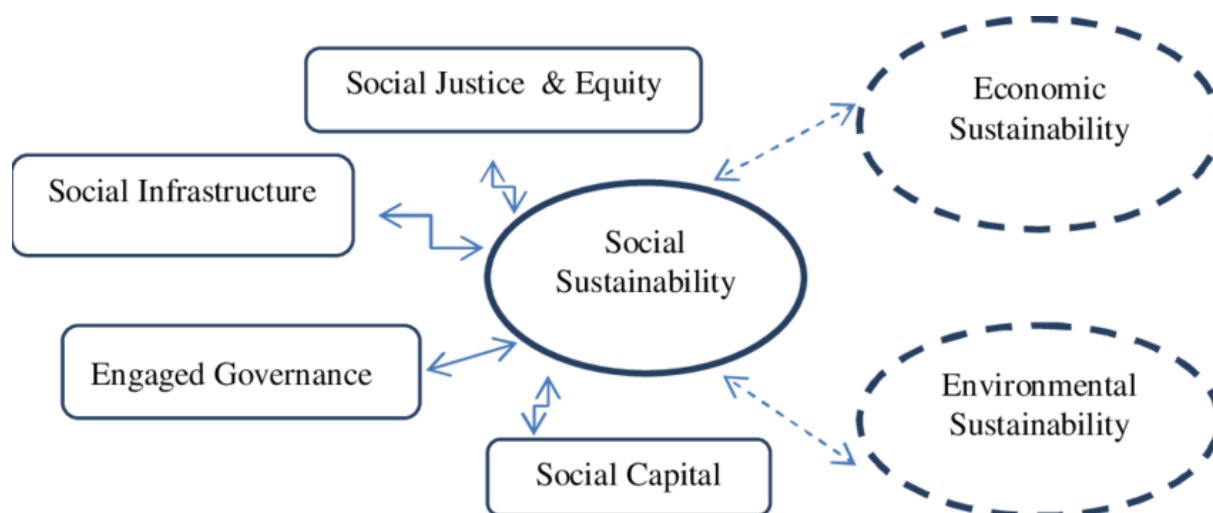
Figure 1: Cuthill's framework of social sustainability (Cuthill, 2009).

2.1.1 Social capital

Cuthill (2009) claims that social capital facilitates positive social, democratic and economic outcomes as it is associated with social networks, trust, norms of reciprocity, obligation, expectation and civic engagement (Lehtonen, 2004; Dempsey et al., 2009; Cuthill, 2009). Social capital is widely defined, but it entails networks at all levels determined by personal or family characteristics as well as attitude and values, that results in collective action shaping

social structures (Lehtonen, 2004). It differs from other forms of capital in that it is not physical but emerges from the relations between people. Social capital is argued to entail some personal or corporate social structures that facilitate some actor's actions (Lehtonen, 2004). Social capital can move and integrate across different built environments through transport as it provides access and can thus influence structures of opportunities (Boschmann & Kwan, 2007). Thus, it contributes to a healthy, strong, resilient and socially sustainable community (Cuthill, 2009). When discussing social capital through public policy, it is eminent that other factors need to be included to facilitate people's needs, like for example education. Thereby, Cuthill (2009) claims that social capital only serves as a theoretical starting point for social sustainability.

2.1.2 Social infrastructure

Cuthill (2009) claims that social infrastructure is the governments' attempt to direct attention to social sustainability through programs and initiatives. Social infrastructure is described as processes or services that enhance the capabilities of a society (Casey, 2005). Regarding public policies, Cuthill (2009) differentiate between 'hard' and 'soft' infrastructure. 'Hard' infrastructure concerns among others education, health and transport development. 'Soft' infrastructure concerns the provision of community services that address community needs. While a balance between the soft and hard infrastructure is necessary to operationalize social sustainability, governments are often criticized for neglecting soft infrastructure (Cuthill, 2009).

Social infrastructure should build capacity for community citizens to work with the government for a sustainable community. It is argued that by building capacity, the citizens of the community will become informed and active which will result in strong local governance (Cuthill, 2009). Casey (2005) argued that to promote social sustainability, social infrastructure should aim at the outcome of equity and justice. In terms of transport that includes a transport system that is appropriate and effective, as well as accessibility for everyone in a community, including elders and people whit disabilities (Casey, 2005). Besides, investment in both hard and soft infrastructure for sustainability awareness should be based on justice and equity considerations (Cuthill, 2009).

2.1.3 Social justice and equity

Social equity originates from social justice and fair distribution of resources and has its roots from the environmental justice movement (Dempsey et al., 2009; Agyeman, Bullard & Evans, 2003). It might be the most frequent used term in social sustainability literature (Dempsey et al., 2009; Cuthill, 2009; Murphy, 2012; Boschmann & Kwan, 2007; Eizenberg & Jabareen, 2017; Pitarch-Garrido, 2018). In social sustainability literature, equity is often divided into intergenerational and intragenerational equity. While the former refers to allocating resources fairly between current and future generations, the latter entails allocation of resources between current competing actors (Eizenberg and Jabareen, 2017). Cuthill (2009) claimed that social justice and equity is the ethical foundation of social sustainability policies and operational initiatives and described equity as *"considering those worst off in our community"* (Cuthill, 2009, p. 68). Equity in policy terms concerns *"distribution of welfare, goods and life chances on the basis of fairness and it applies to national, international and intergenerational context"* (Murphy, 2012, p. 20). At the local level Cuthill (2009) argued that it usually concerns facilitating access to appropriate and affordable housing, education and health services, as well as safety and the opportunity to participate in social and civil life (Cuthill, 2009).

Additionally, social equity is often linked with how environmental costs and benefits are distributed. Murphy (2012) shed light on the fact that there will be a disproportionately distribution of climate change effects and air pollution. Equity in policies should be understood as a commitment to assist and protect vulnerable group from the effects of climate change as well as from financial burdens from measures to mitigate climate change (Murphy, 2012). Eizenberg and Jabareen (2017) explores similar understandings of equity as they describe what they call the three dimensions of equity: redistributive, recognition and participation. They argue that an economic restructuring, meaning redistribution of income and division of labour, as well as recognition and voice of disadvantaged and vulnerable people, are critical to alleviate injustice (Eizenberg & Jabareen, 2017).

2.1.4 Engaged governance

Governments has started to use engaged governance as a method for people to be more involved in the decision-making processes that concerns them. Governments has recently sought to engage citizens and communities more in the decision-making process. It is said to deliver better outcomes for citizens and communities, and therefore it is called the

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methodological foundation of social sustainability (Cuthill, 2009). Similarly, McKenzie (2004) addressed political advocacy, arguing that it is necessary to be able to meet the needs that individual or community action cannot provide themselves. It can be beneficial for both the people and the governance that as many social groups as possible participates in decision-making processes for policy making. For the individual, participation can strengthen their social inclusion. For the state, it enhances the possibility that the people consider government policy legitimate. In fact, it is argued that participation is used as a means to achieve legitimacy seeing as the chance of people supporting the policies increases if they have been included in the decision-making process (Murphy, 2012).

Engaged governance challenges the representative democracy where the people choose one of their own to represent them in governance. In contemporary societies however, it is argued that decision-making should be based on a broader range of knowledges. The people need to be more active and engaged in governance to create a participatory democracy (Cuthill, 2009). Cuthill (2009) argued that it is not about the ones 'in power' to direct control of power to the ones 'without power', but rather to build countervailing power. By this he meant power that is *"based on a collaborative approach to governance, involving all stakeholders working together for the common good"* (Cuthill, 2009, p. 369). Hence, a more engaged governance is implemented and will work as a basis for the people to be more involved in decision-making and social sustainability-related informed actions.

2.2 The built environment's effect on urban social sustainability

Social sustainability cannot be separated from physical factors and the built environment (Næss, 2015; Dempsey et al., 2009, Weingaertner & Moberg, 2011). It is affected by the built environment through enabling, facilitating, constraining and preventing human behaviour (Næss, 2015). Accordingly, transport influence the levels of social sustainability as it prevents or enables people to travel. Thereby, transport provide access to services, facilities or opportunities for some people and is therefore fundamental for social sustainability. Dempsey et al. (2009) argue that social sustainability should answer the question of *"what are the social goals of sustainable development?"* (Dempsey et al., 2009). In the context on British urbanity, they discuss urban social sustainability through two main terms: social equity and sustainability of community. These terms are discussed in relation to their link with the built environment (Dempsey et al., 2009).

2.2.1 Social equity and exclusion

Social equity in an urban context it is often linked with exclusion (Dempsey et al., 2009). Social exclusion is claimed to be a result of inequity and unfair distribution by Boschmann and Kwan (2007). He explained it as when certain members of a society are separated from what is considered the 'normal round' of working and living in that society. It occurs through discriminating or exclusionary practices based on for example race or age which leads to lack of access to participate socially, economically or politically in society (Dempsey et al., 2009). As such, it entails being excluded from processes that empowers disadvantaged groups such as decision-making and production process, as well as participating in democratic governance (Boschmann & Kwan, 2007). This view of equity is sometimes referred to as egalitarianism where all people, regardless of socioeconomic status and geographic location, should be treated equally (Boschmann & Kwan, 2007).

Further, vertical equity refers to equity across socioeconomic classes. In a scenario like this, the people worst off receive the greatest benefit at the least cost, while the people who are better off receives less benefits usually at a higher cost (Boschmann & Kwan, 2007). Equity regarding territorial differences are usually described as territorial or horizontal equity (Dempsey et al., 2009; Boschmann & Kwan, 2007). Horizontal equity is equity among people in unequal positions. In regard to transport, Boschmann and Kwan (2007) states that such equity is like the users-pay principle, meaning that users receive and use what they have paid for. Geographically speaking, Dempsey et al. (2009) argues that inequity usually occurs in a society as what is called 'areas of deprivation'. Without equity, people in such areas could lack for example access to public services and facilities. Likewise, Boschmann and Kwan (2007) argue that through spatial, financial, temporal or personal obstacle some people could be prevented from the opportunity to access transportation.

2.2.2 Sustainability of community

A community is argued to be a socio-spatial construct that gives social sustainability a territorial dimension in the built environment (Dempsey et al., 2009). Dempsey et al. (2009) describe sustainability of community as the ability of the society to continue being healthy, viable and functional, and the ongoing process of reproducing and sustaining itself over time. This process is associated with social cohesion and social capital, which again leads to social

networks and organizations, and involves reciprocity and integration. Additionally, factors like interactions between community member, for example in the form of participation in formal and informal institutions, as well as security, safety, trust and pride are also listed as essential for a community to be sustainable (Dempsey et al., 2009).

2.2.2.1 Social cohesion, interaction, and networks

Social cohesion, interaction and networks are very interrelated terms. They overlap and they all influence each other. All of them are interchangeably used in social sustainability literature (Dempsey et al., 2009). Littig and Griessler (2005) uses social cohesion as an indicator for social sustainability and claim it is measured by integration into social networks, involvement in activities as volunteers, and solidary and tolerant attitudes. According to Murphy (2012), it strengthens social networks and promotes a shared sense of social purpose, while fighting cultural intolerance and reducing conflicts. Hence, it is linked with the opportunity to facilitate a society with balanced coexistence and low potential for civic strife (Murphy, 2012). Social cohesion is by Dempsey et al. (2009) used as a backbone in sustainability of communities. It is described as a contribution to strong, fair and just societies and what creates social order (Dempsey et al., 2009).

Dempsey and her colleagues (2009) refer to Wirth as they define social interaction as *"the basic process in the formation both of human nature and of the social order"* (Wirth, 1964, as cited in Dempsey et al., 2009, p. 294). They claim that social interaction is the foundation of a cohesive society seeing as without interaction a society would just be individuals living separately from each other (Dempsey et al., 2009). Furthermore, Dempsey et al. (2009, p. 295) describes social networks as *"social support systems"*. Such social support systems are essential for social sustainability seeing as our sense of safety and well-being can be greatly affected by the people we know and trust, and the people we depend on (Dempsey et al., 2009). Besides, these social aspects are influenced by the built environment's layout, density and land use. As an example, it is stated that social interaction is facilitated through high density and mixed-use due to an *"increased range of people (and motivations) using the streets"* (Dempsey et al., 2009, p. 295).

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2.2.2.2 Participation

Participation is an important factor of social coherence, social capital and social networks (Dempsey et al., 2009). It is about taking part in local community activities. Participating in a neighbourhood group opposing some new development in the area, or more regular participation in local sports teams, will provide a sense of community (Dempsey et al., 2009). Eizenberg and Jabareen (2017) discuss participation as a dimension of equity. They emphasize the importance of participation and meaningful involvement. Hence, they argue that participation in a space where all people interact as equals and they all have a respected voice is essential for social sustainability (Eizenberg & Jabareen, 2017).

Further, Dempsey and her colleagues' (2009) emphasized that people in the community can have several different social networks both within and outside the local community. Hence, the issue might be lack of time to participate in said activities. Though for some, it could also be a matter of lack of shared interests, prosperity or desire (Dempsey et al., 2009). Further, it is emphasized that participation is linked with the density and mixture of land use in an area due to a wider variety of activities (Dempsey, et al., 2009).

2.2.2.3 Stability

Dempsey and her colleagues (2009) included community stability as another aspect and claimed that it is necessary with well-established long-term residents in a neighbourhood to minimize crime and anti-social behaviour as well as enhancing social cohesion. Further, it is argued that resident mobility might be a symptom of poor social cohesion or lack of sense of community in a neighbourhood. In addition, there is a link between community stability and lifestyle demography (family size and status, and age) that cannot be ignored. Some neighbourhoods are made for people at particular life stages such as students and are thereby characterized by high levels of resident mobility (Dempsey et al., 2009). Moreover, Bramley et al. (2009) found that there is a non-linear relationship between community stability and the density of the community. This is among others connected with access to gardens. The connection between community stability and urban built environment is vague. Although, the built environment and access to key facilities and services may have an impact on resident and social mobility, and thus effect the stability.

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2.2.2.4 Pride and a sense of place

According to Dempsey and her colleagues (2009) *"a positive sense of attachment to a place is considered a dimension of social sustainability because it is an integral component of people's enjoyment of the neighbourhood in which they live"* (Dempsey et al., 2009, p. 296). The article further differentiates between a sense of place and a sense of community. While the former is said to be more about the physical settings, the latter is usually used when describing relations to the people living the same community. Eizenberg and Jabareen (2017) claims that a desired built environment should promote a sense of community and place attachment. Moreover, sense of place and pride is linked with the built environment through common norms and behaviours, for example unwritten rules concerning vandalism and littering (Dempsey et al., 2009).

2.2.2.5 Safety and security

In social sustainability literature, safety is described as the *feeling* of safety and the *right* to safety (Dempsey et al., 2009; Eizenberg & Jabareen, 2017). The former is argued to be facilitated by providing security in a community. It is seen as an essential factor for social cohesion seeing as without it, people will most likely not participate in organized activities nor interact and create networks with other people. People do not like to feel unsafe or live in unsafe environments. Hence, creating safe environments free from crime and disorder is crucial for social sustainability (Dempsey et al., 2009). The latter concerns the right to be protected and secured when one experience vulnerability. In sustainability literature, it is often linked with environmental and climate change vulnerability, meaning when people are not able to cope with such changes, varieties and extremes (Eizenberg & Jabareen, 2011). Additionally, poor living environments and poor maintenance of such environment is said to psychologically impact peoples feeling of safety (Dempsey et al., 2009).

3. Methodology

This chapter will outline and review the research process. First, an overview of the research design and structure. Second, a description of the study setting is followed by the different methods for sampling, data collection and data analysis are described. At last, a chapter of reflections concerning challenges, limitations and ethical considerations that has occurred during the research.

3.1 Research design

This thesis is based on qualitative research methods seeing as it is based on interpreting subjective meanings, attitudes and perspectives (Brockington & Sullivan, 2003). The research seeks to understand the perceptions of planners and politicians influencing the development of Oslo's sustainable transportation sector. Qualitative research methods are in-depth examination of context-specific situations (Bryman, 2016). Thus, this methodology is the most suitable for the study. Through an inductive approach, this thesis tempts to uncover the different dominating thoughts of the social dimension of sustainable transportation among planners and politicians in Oslo municipality.

Qualitative research methods with an inductive approach allows for simultaneous work throughout the research process (Bryman, 2016). This is because all the stages of the research process influence each other. Maxwell (1997) argues that qualitative studies need a less restrictive and broader form of design than more traditional research methodology do, such as quantitative research which is based on logical linear processes of stages to follow. Thereby, it is more difficult to commit to a singular research design for a qualitative study, and the researcher might need to modify or reconsider the design (Maxwell, 1997). The design of the research resembles a case study design which is one of the most common designs in a qualitative study, as it concerns a singular location – Oslo municipality. As Bryman (2016) claims, a case study implies that one aims to reveal the unique features of that specific case. For this research, the Municipality of Oslo provides that specific location, while planners and politicians in the municipality are the object of analysis.

Qualitative research is not meant for generalizations as they are context-dependent and usually use a non-random sampling method (Bryman, 2016). Thereby, the results from this thesis cannot be used in a generalization of planners and politicians elsewhere. Though this is often the goal of quantitative research, I find do not find this relevant nor possible for this case seeing as a case study (Bryman, 2016).

3.2 Study area

Oslo is an interesting case in point for this research due to its large focus on sustainable development since the Brundtland Report *Our common future* was launched in 1987 (WCED, 1987). Oslo, the capital and the largest city of Norway with 694 000 inhabitants (Statistics

Norway, 2020). The municipality is located in eastern Norway surrounded by the natural areas called Marka Forest and the Oslo Fjord. However as mentioned in the introduction, like many other European capitals, Oslo is criticized for a development characterized by residential segregation of different socio-economic classes (Andersen & Skrede, 2017). Regardless of welfare regimes, the city's housing regimes has divided the city between the wealthy West versus the non-wealthy East (Tammaru et al., 2016). Oslo also has the highest share of immigrants compared to the rest of Norway (Statistics Norway, 2019). Lack of employment and poverty is often associated with this group of people (Municipality of Oslo, 2018).

3.3 Sampling

The sampling method used for this study is a purposive sampling method, meaning that the sampling was not carried out randomly. The goal of a purposive sampling is to strategically select informants that are relevant for the research questions at hand (Bryman, 2016). Maxwell (2013) explains this as intentionally selecting particular people and settings that will provide information one cannot get from other samples. For this thesis, that includes planners and politicians in the Municipality of Oslo. Purposive sampling was beneficial for the research as it provided a degree of representativeness. It is usually preferred in qualitative research as it allows me to specifically select people of importance from the target population, in opposition to probability sampling in quantitative research which is completely random (Maxwell, 2013). To be able to find the most relevant people, clear criteria are important to exclude or include informants (Bryman, 2016). The criteria for this study were the following:

- Politicians working in the Municipality of Oslo who has worked with city or transport development, or sustainable urban development
- Planners (strategy, land use, transport, mobility, and city planners) working in the Municipality of Oslo with an influence on transport planning
- People with advising and consulting roles within the transportation sector and thus have an influence on transport planning in Oslo

Purposive sampling entails a multitude of different methods. I used a method called snowball sampling. Bryman (2016) describes this sampling method as:

> *"a technique in which the researcher initially samples a small group of people relevant to the research questions, and these relevant participants propose other participants who have had the experience or the characteristics relevant to the research".*

<div align="right">(Bryman, 2016, p. 415)</div>

Additionally, the sampling of the informants happened with a sequential approach (Bryman, 2016). It started with planners mainly from the public transportation sector. From there, people from the micro mobility sector, politicians and planners in the municipality became more interesting. Although this method is usually used when probability sampling is difficult to conduct, this technique allows a broader network of relevant informants to sample from (Bryman, 2016). Thus, this technique was considered most appropriate for this study. Purposive sampling could increase the validity and reliability of representation in the study since the researcher's subjective judgement opens the opportunity to include certain characteristics and ensure heterogeneity in the study (Bryman, 2016).

One of the challenges of qualitative research, is the question of how many informants are needed. It is said that the rule of thumb is that the larger the scope of the study is, the more informants are needed (Bryman, 2016). The scope of this paper is relatively broad. People I would have wanted to interview includes a wide diversity of planners, from transport and mobility planners to city planners and land use planners, as well as planners in the municipality and in the private sector, local politicians, and others influencing the transport sector (work regarding micro mobility, car-sharing etc.).

The ten informants I ended up with were selected based on the goal to have diversity among the informants. I was not looking for people who are particularly concerned with social aspects. Rather, I wanted to investigate the perspectives of the 'average' person working within the transport sector. Due to transportation's essential role in society, it was interesting to see how they think of sustainability and social concerns. Even though that might not be the main objective in their everyday workday, transport plays a significant part in sustainable development and in creating a society in general.

3.3 Data collection and analysis

In the following sub-chapters, the data collection and analysis process is outlined. I will explain and reason the collection analysis methods used. Starting with the data collection and how qualitative interviews are carried out. Further, coding and a thematic analysis is conducted to find the different dominating thoughts concerning sustainable transportation.

3.3.1 Qualitative interviews

Qualitative interviews were performed to collect the data needed for this study. More precisely, I used the method of semi-structured interviews. Unstructured or semi-structured interviews are preferred in qualitative research as one is looking for the informants own perspectives (Bryman, 2016). Semi-structured interview (in comparison to structured interviews) *"can make better use of the knowledge-producing potentials of dialogues by allowing much more leeway for following up on whatever angels are deemed important by the interviewee"* (Brinkmann, 2014, p. 286). As such, open-ended questions and the opportunity to add follow-up questions, are favoured. Interview methods providing this opportunity is thereby more flexible and usually gives rich and detailed answers (Bryman, 2016).

A semi-structured interview means that the researcher has an interview guide with some questions or specific topics. These are often open-ended questions allowing leeway for the interviewee when replying (Bryman, 2016). The informants are thus allowed to be what Brinkmann (2014) calls knowledge-producers. This means that there is room for asking follow-up questions, without allowing the informants to freely steer the conversation into topics they deem important, which is often the case of unstructured interviews (Brinkmann, 2014). Therefore, the interview guide for this study (see Appendix I) only includes questions asking for the interviewee's thoughts and opinions, for example *"What are your thoughts on the concept of sustainable transport?"*.

In addition, the researcher does not have to follow the interview guide to the letter but has some slack to readjust existing questions as well as adding new ones (Bryman, 2016). This is important seeing as different people from different backgrounds has been interviewed using the same interview guide. For instance, one of the informants was not familiar with the concept of social sustainability. Hence, a couple of questions concerning this concept had to be reframed.

Concerning the length of the interviews, I didn't want them to be too long, as the informants have busy schedules. When designing the interview guide, the aim was to be able to have about 45 minutes long interviews. Resultingly, the interviews varied from 25 to about 60 minutes, depending on how detailed answers the respondent had. However, after I had conducted a couple of interviews, I realized that 60 minutes interview gave me much more data to analyse and was therefore preferred. Thereby, in the later interviews found myself to be way better at responding to the interviewee's answers with follow-up questions like *"why do you think that?"* and *"can you elaborate on that, please?"*, which was something that I did not do too well in the beginning.

Later, as I transcribed and analysed the interviews, I realised that I had some more questions that should have been included in the original interview. Therefore, I asked the informants to answer a few more questions (see Appendix II). Two responded that if it was okay for me, they would like to answer through another interview, which I allowed. Five responded in writing on e-mail. The last two, I never heard from. Therefore, I missed some data from the second interview round. The best option would of course be if I had included these questions in the first interview guide. However, qualitative research allows the researcher to go back to previous stages to collect more data as new information occurs (Bryman, 2016).

3.3.2 Coding and thematic analysis

All interviews were recorded and transcribed. In qualitative research, recording and transcribing in beneficial form the researcher due to the human brain's natural memory limits and as it helps analysing the answers more thoroughly (Bryman, 2016). In addition, this could increase reliability and validity as memories can change over time while a recording allows you to know exactly what was said. Recording also allowed me to be more present with the informant rather than only focusing on my notes. All the informants were asked if it was okay that the interviews were recorded before the interview started. This was also included in the letter of consent.

According to Bryman (2016) coding might be the most common way to carry out a qualitative data analysis. Coding is a process where the researcher reads through the data several times to discover what topics are hidden in different pieces of data. The aim is to find what that particular piece of data represents, what is that piece of data about (Bryman, 2016). The

concepts I found in previous literature was used as a point of departure as I read through the empirical data. At the time, this was a long list of social concepts and I sought to identify as many as possible of them in my data. However, such theory-related material is just one of the criteria one should look for when coding. Repetitions, metaphors, local expressions, linguistic connectors, and missing data, as well as similarities and differences are also important to look out for. I was constantly open for the fact that other topics could occur. Further, I categorized my codes into smaller groups and started to look for connections between my findings and the aspects highlighted in the theoretical perspectives.

The identified categories accumulated into a few themes in correspondence to the theoretical perspectives. A theme is an identified category based on codes that relate to the research topic and/or research question. Hopefully, these themes provide the researcher with some theoretical understanding (Bryman, 2016, p. 584). The analysis approach was chosen for this study seeing as the aim is to reveal dominating themes of planners and politicians.

3.4 Limitations, challenges and ethical considerations

This chapter entails reflections of the work done regarding this thesis. Reflections are made upon challenges and limitations that has occurred during this study, as well as ethical considerations when doing a qualitative study and my role as a researcher.

3.4.1 Limitations and challenges

One of the challenges this research faced was the issue of translation. I interviewed the informants in Norwegian seeing as that is their mother tongue, however, this thesis is in English. Hence, interpretating the data requires a translation process. There is not always one specific word in English one can use to translate a Norwegian word. In addition, Norwegian sentences are structured differently than English ones. A statement from an informant can appear different in English than in Norwegian, and the meaning of what they are saying might not fully shine through. Nonetheless, there is a chance that something gets lost in translation. However, as I am using quotes from the informants, I have done my best to ensure that they remain the same in meaning and attitude.

The issue of subjectivity is also a concern among qualitative researchers. Seeing as one does not sample randomly, the research can influence the outcome by selecting the informants one

desires (Bryman, 2016, p. 398). To try to get more or less a holistic image of the transport system in Oslo, I interviewed a variety of people with a variety of different roles in different acting companies and institutions. Nevertheless, it is my subjective interpretation of what the informants say which is why I do my best to back up my claims with previous research. However, it is important to note that in social research the research often must take the role of an interpretivist, which is what I aim to do (Bryman, 2016, p. 26).

3.4.2 Ethical considerations

One of the most essential ethical considerations is anonymity. Although this is not a particular sensitive topic, I found it necessary to keep their identity hidden seeing as attitudes towards their workspace or political opinions might transpire. Moreover, this is one of the reasons why I accumulate all occupations to 'planner' and 'politician'. Additionally, all data (recordings, notes etc.) are only available for me, and will be deleted once the research is over.

Nonetheless, I sent out a letter of consent to all informants for them to see what this study is about and what their role entails and their rights as informants. Here they were also informed on the fact that they would be anonymous in the thesis. Bryman (2016) shed light on the importance of informed consent when he stated that *"participants should be given as much information as might be needed to make an informed decision about whether or not they wish to participate in a study"* (Bryman, 2016, p. 129). Seeing as signing this contract requires a printer and a scanner when one cannot meet in person, the informants did not have the opportunity to do so before the interview. However, I made sure that I asked all of them if they had read it and agreed to it before we proceeded. In addition, I informed them that they have the right to withdrawal their contributions at any moment before the deadline of the thesis.

All interviews were performed via the online communication application Teams rather than meetings in person. Due to the ongoing Covid-19 situation and the following restrictions on social gatherings, this was the responsible and safe way to do it. Moreover, this is an efficient use of time seeing as neither part needed to spent time getting from one meeting to another. Thereby, it was easier for the informant to make time for me in their busy schedules. However, digital platforms depend on good internet connections which sometimes might fail. This happened a few times where either I or the informant lost connection. It got quickly

fixed, however, during the transcribing process I realised that some places the connection was poor and thus it was difficult to hear what was being said.

4. Social sustainability in planning documents

This chapter provides a reading of planning documents relevant for transport planning. First, this chapter presents Oslo's municipal plan with focus on transport and social challenges and goals highlighted in the plan. Then, social aspects of the two transport planning documents the *Regional Plan for Land Use and Transportation in Oslo and Akershus* (Regional plan for areal og transport i Oslo og Akershus) and *Oslo Package 3* (Oslopakke 3) are highlighted. The intention is to provide insight to what degree social sustainability is addressed and incorporated in the planning documents relevant for transport planning and development in Oslo.

4.1 The municipal plan of Oslo

The municipal plan is an overall management document for Oslo. The current plan was approved in January 2019 and is entitled *Our city, our future: Municipal plan for Oslo 2018* (Vår by, vår fremtid: Kommuneplanen for Oslo 2018). It concerns everyone who lives or works in Oslo and its purpose is to guide and provide a direction for long-term development and facilitate society development until 2040. The municipality's main goal is to become *"greener, warmer and more creative city for everyone"* (Municipality of Oslo, 2018). It is prominent in the municipal plan that sustainability in all three dimensions are perceived as a necessity. Firstly, the plan argues that Oslo should ensure *"sustainable economic, social and environmental development"* (Municipality of Oslo, 2018) in relation to the UN's Sustainable Development Goals from 2015. Accordingly, they aim to achieve this by becoming a zero-emission society, leading the environment and climate politics-shift, reducing social inequality and increasing public health (Municipality of Oslo, 2018). In the following I present the main social- and transport-related challenges and goals I identified in the municipal plan.

Figure 2: Our city, our future (Municipality of Oslo, 2018).

4.1.1 Social challenges and goals

Population growth is emphasized as one of the main challenges in Oslo both currently and in the future and will affect a various of different sectors. The expected growth will be characterized by a higher share of elders, more young people moving to the larger city, and immigrants. Although the plan claims that population growth will be an opportunity to be more creative and multicultural, it is also connected with several social challenges and increased inequalities. For instance, while Oslo's municipal plan claims that most people are 'managing well', the fact that the capital has both the best and the worst living conditions in Norway are also stressed. This gap is expected to increase. It is argued that this could be due to the highest proportion of immigrants compared to the rest of the country. Different immigrants have different prerequisites for integrating into society and is thus often linked to unemployment and poverty (Municipality of Oslo, 2018).

Child poverty and inequal opportunities for children and young people are especially highlighted as social challenges in Oslo. The plan emphasizes on the responsibility of the municipality to facilitate access to minorities' cultural services and children's leisure activities. It is claimed that there is a link between the parents' economy and social background and the children's' education and opportunities. Such social inequalities seem to occur both within and between the different districts of Oslo. However, the municipality has found a tendency of low-income households to accumulate in areas with relatively low housing prices. Some of these areas struggle with a compound of challenges regarding poor living conditions, large traffic load, inadequate maintenance of the neighbourhood and few social meeting spots (Municipality of Oslo, 2018).

By 2040, Oslo aims to have developed an attractive city for everyone. Decreasing the gap between living condition standards, reducing discrimination and bullying, ensuring a safe

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childhood that facilitates a wide range of opportunities, and the opportunity for everyone to participate in meaningful activities and have an active everyday life is highlighted as the main goals. Through inclusion in work life and city development, the municipality seeks to overcome poverty and inequality and achieve a social balance across the city. Additionally, Oslo desires diverse neighbourhoods with attractive housing opportunities for different housing needs, as well as safe infrastructure build for preparedness for possible events such as the accessibility of emergency vehicles (Municipality of Oslo, 2018). One of the means to be able to achieve these goals was citizen and organizational participation. According to the plan, there was a comprehensive participation scheme taking place before the final municipal plan was accepted. The municipality claimed that this have created more engagement than ever before. Children, young adults, immigrants and disabled people was all represented at six meetings. The goal was for important groups of society to present their point of view. Here, topics like social inequality and densification development has been discussed Additionally, a draft of the plan was sent out to everyone in Oslo above the age of 16 with the opportunity to share their opinion. It is claimed that they received very few negative comments, while there were many more positive comments (Municipality of Oslo, 2018).

4.1.2 Transport challenges and goals

Transport is highlighted as the main challenge for emission reduction and climate change as it contributes to more than half of the city's emissions. With population growth in the city and the surrounding areas, this issue will continue to grow if measures are not taken. Hence, the largest changes will occur in the transport sector (Municipality of Oslo, 2018). Increase in road traffic and emissions contributes to more noise, poorer public health and unsafe school roads for children. By 2030, Oslo seeks to reduce car traffic down to one third of the traffic and increase travels with public transport, bicycling and walking. Additionally, the municipality claims that digital and flexible solutions in the labour market will reduce the need for transportation. To reach these goals, Oslo has started a project called car-free city centre. The aim is to reduce the number of cars in the city centre to make room for people, trees, cafés, bicycles, playgrounds and so on. However, it is emphasized that there will be made room for the cars that still needs to be there such as goods, emergency services and so forth (Municipality of Oslo, 2018).

Further, the city seeks to provide the freedom to choose the mode of transport people want for the different trips they do. Among others they mentioned the metro to work, bicycling to the

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store, while renting a car for a weekend at the cottage, as well as facilitating transport for people with disabilities. The goal is for people to be able to live without a car, and for the people who must live with a car, that that car is a zero-emission car. Here, communication and contact with the inhabitants are mentioned as an important tool. The need for a behavioural and attitude change among the inhabitants is also highlighted (Municipality of Oslo).

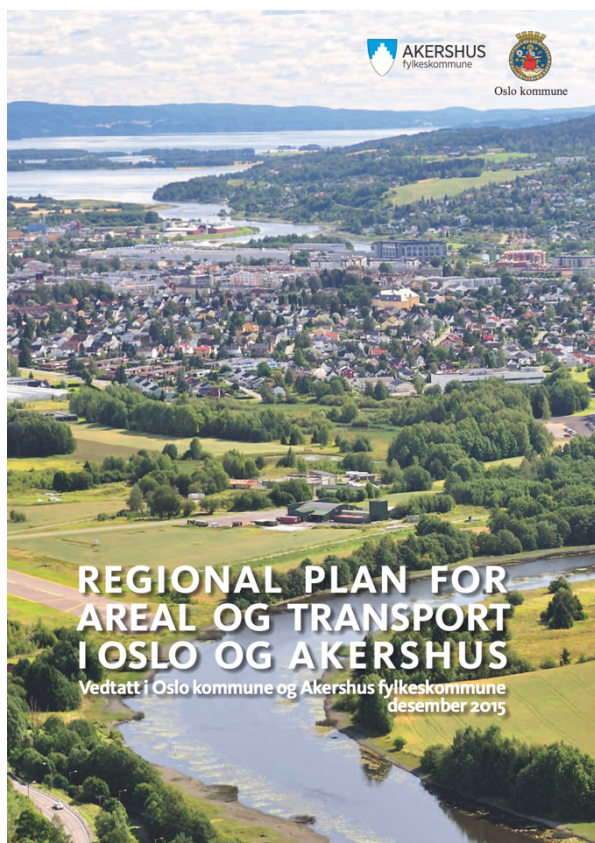## 4.2 Regional plan for land use and transportation in Oslo

Figure 3: the Regional Plan for Land-use and Transport in Oslo and Akershus (Municipality of Oslo & The County of Akershus, 2015).

The purpose of the common regional plan was to facilitate for the increasing population in the capital and the surrounding area. Oslo depends a large degree on the surrounding municipalities as the housing and labour market is connected. Cooperation with neighbouring municipalities is therefore important to be able to reach their sustainability goals. Hence, Oslo has cooperated with the former County of Akershus (now a part of the County of Viken) to achieve growth and sustainability (Municipality of Oslo & County of Akershus, 2015).

The result was a regional plan for land use and transport. The purpose is to become a competitive and sustainable region in Europe with efficient land use based on multi-core development. Further, they seek to create some dense hotspots for housing and workplace development as it is claimed that it will create more living centres of development (Municipality of Oslo & County of Akershus, 2015). Additionally, it emphasizes that the transport system should be efficient, accessible for everyone, environmentally friendly and in little need of cars. Public transport followed by bicycling, micro mobility and walking is highlighted in this plan as well (Municipality of Oslo & The County of Akershus, 2015).

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While sustainability is highlighted as an essential factor, social sustainability is not directly addressed in the regional plan. However, they underline the importance of a transport system that is accessible for *everyone*. Moreover, the need for different types of good quality housing to satisfy a broadly composed population is emphasized. In addition, the plan stated that safe walking and bicycling infrastructure is essential to promote soft road-users. Lastly, the plan stated that a cooperation between all parts are necessary to make this successful (Municipality of Oslo & County of Akershus, 2015).

4.3 Oslo Package 3

Oslo package 3 (Oslopakke 3) is also a transport plan developed by the Municipality of Oslo in cooperation with Akershus as well as the Norwegian government. It is an overall plan for development and finance of the transport system in Oslo and Akershus. In short, the goal is to create a safe, efficient, accessible and environmentally friendly transport system (The Norwegian Public Road Administration, 2019b). The Oslo Package is where the toll system was first introduced, and Oslo Package 3 mainly concerned the toll scheme and increasing taxes for road users from 2012 (The Norwegian Public Road Administration, n.d.). That means that electric vehicles who drove for free for the first few years, had to start paying taxes from June 2019 (The Norwegian Public Road Administration, 2019a). In this plan, like the other plans, the goal was to increase public transport, bicycling and walking at the expense of car use. The purpose of the plan is to *"develop an efficient, environmentally friendly, safe and accessible transport system"* (The Norwegian Public Road Administration et al., 2019, p. 4). Local reduction of car use and greenhouse gas emissions are also highlighted as a goal. Additionally, safety is claimed to be a priority for all modes of transport, bicycle lanes and school roads are especially emphasized. Oslo Package 3 does not directly address sustainability, nor any social concerns.

5. Results and discussion

In order to understand how social sustainability is included and operationalized in transport planning, this chapter directs attention towards the planners and politicians own perspectives and experiences. In chapter 1 I mentioned how the social dimension is often neglected in transport planning. Chapter 4 showed that only Oslo's municipal plan to some degree included social sustainability, while few social concerns are recognized in the transport

planning documents. Accordingly, the main social concerns regarding transport were providing access for everyone. The following sub-chapters will discuss if and, if so, how access to transport can influence key aspects of social sustainability through the informants' own words and descriptions.

The interviews showed that all informants initially associated sustainability and sustainable transport with greenhouse gases, exploitation of resources and environmental degradation, however, the social dimension was not forgotten. Two informants mentioned the social dimension directly, while the other eight included social concerns like equal distribution, access to work, physical health and meeting societal and human needs. However, when I later asked about the term social sustainability, planner 3 stated that it was an unfamiliar term. The rest of the informants, while not being too confident in their descriptions, related the term to equity and distribution, taking care of the less fortunate and poverty reduction. These descriptions resemble the various ways of describing equity from the literature, like horizontal and vertical equity as well as protecting the vulnerable (Dempsey et al., 2009; Boschmann & Kwan, 2007;). However, seeing as social sustainability is a contested concept concerning more than just equity (Dempsey et al., 2009; Lehtonen, 2004; McKenzie, 2004; Littig & Griessler, 2005; Boström, 2012; Cuthill, 2009; Murphy, 2012), the planners' and politicians' perspectives and experiences are discussed in light of the theoretical perspectives from chapter 2. The theoretical perspectives will be used as guide and analytical tool which allows me to recognize what key aspects from social sustainability literature is included and operationalized in the informants' use of the term sustainable transport in Oslo. In the analysis I recognized a topic that reoccurred among the informants but is not mentioned in the theoretical perspectives. A discussion on this will be provided in the last chapter 5.3. This provides a significant contribution to the growing literature on social sustainability.

The findings are supported by quotes from the informants. Seeing as all the interviews are translated from Norwegian to English, the quotes are not retold word by word. However, in essence and meaning they remain the same.

5.1 Working together for socially sustainable transport

Planner 7 pointed out the fact that if we are to increase sustainability in general, everyone needs to take responsibility and contribute. His argument is that one person cannot do

everything and thus we all need to take responsibility and do what we can do: *"It is very easy to just say that it does not matter what I do, right, because there are many people who are way worse than me, but everyone must do their part"* (Planner #7, 2021). This resembles Cuthill's (2009) interpretation of the social dimension of sustainability. The planner based his understanding of social sustainability on the assumption that environmental issues are social problems, and that economics is for people's benefit. In addition, his aspects of social sustainability could all be linked to some form of working together, like social capital associated with trust and expectations, social infrastructure to together building capacity, equity as working together to 'protect the poor' for equity and engaged governance to involve the people. Hence, what we can draw from this then, is that people are responsible for sustainability. If people are responsible, then people need to take a part in trying to achieve sustainability. Regarding sustainable transport, it is likely to assume that this means that everyone has a responsibility to choose sustainable modes of transport. Further, one can argue that is also implies a responsibility of the government to facilitate for sustainable transport. In the following, the informants' perspectives on social sustainable transport will be discussed more in-depth in light of Cuthill's aspects of social sustainability to highlight how working together in the transport sector can enhance social sustainability.

5.1.1 Building social capital

Regarding the role of the transport system, politician 1 stated that *"it is in interaction with other people that the good society is truly created"* (Politician #1, 2020). Interaction is described as what forms human nature and is integrated in the broader term social capital (Dempesy et al., 2009). Thus, this resembles Cuthill's (2009) understanding of social capital as facilitating positive social, economic and democratic outcomes. Assuming that the words 'good' and 'positive' are equivalent to each other, it is arguable that a good society does facilitate positive outcomes. While interaction alone might not lead to a good society, when resulting in social capital it might create positive outcomes. Social capital is in social sustainability literature associated with trust, social norms, reciprocity actions, civic engagement and obligations (Lehtonen, 2004; Dempsey et al., 2009; Cuthill, 2009), which arguably could promote positive outcomes and a good society. While transport might not directly and solely be what enables us to interact and build social capital, one can still imagine that it has a large impact on human activities and opportunities for social capital. Like Boschmann and Kwan (2007) stated, transport enables us to create social capital across geographic locations. Due to transport providing the opportunity to efficiently access other

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geographic locations, interaction with people one otherwise would not have met becomes possible. Additionally, transport makes this process time-saving and efficient. Hence, in correspondence with politician 1's argument, one can assume that transport has an essential role in facilitating the positive outcomes that makes a good society as social capital is built more efficiently. Politician 1 continued by adding:

> *"It is possible with home office, that is something this time has shown. But it is something about that social interaction between people are a value that we have seen during this pandemic is almost even more important than what we could have thought. And then people must move from a to b to meet, if not everyone live in the same neighbourhood, and people do not do that. So then we need a transport system that is more sustainable in the sense that there is room enough for everyone"*

(Politician 1, 2020)

This statement indicates that politician 1 viewed social interactions as something valuable. Considering that social capital is related to interpersonal relationships with trust, reciprocity and expectations (Cuthill, 2009), this quote could indicate a longing for human interaction because the politician values such benefits provided by interpersonal relationships associated with social capital. Dempsey et al. (2009) argued that social networks associated with trust and dependency can affect a human's well-being and feeling of safety. Thereby, it is thinkable that politician 1's statement implies that not being able to meet people have negative impacts on people's well-being. As the politician stated the transport system should have *"room for everyone"* so that people can meet, it is likely that the politician implied that it should be accessible for everyone, non-excluding, which corresponds with Dempsey et al.'s (2009) understanding of equity.

Moreover, politician 2 argued that social interactions between people should be facilitated by the society as it is just as beneficial for the society as it is for the individual to be able to exchange greetings, information and ideas. Regarding the current Covid-19 pandemic, the politician claimed that meeting people digitally keeps the wheels going, however important informal conversations get lost. The example was drawn from a work-community where one can benefit from having an informal discussion with someone in the hallway for instance. The politician claimed that *"it is a bigger threshold to agree to talk to someone [online] then when you just meet in the hallway and you can say 'about that case, what do you think about*

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that'" (Politician #2, 2021). If one is to take Cuthill's (2009) description of social capital into consideration, then it might not be unlikely to assume that politician 2 implies that social capital could increase work efficiency. Interpersonal relationships based on trust, reciprocity, expectations and obligations can arguably play an important role when facing a work-related challenge. One can imagine that relationship-characteristics like that could influence how people communicate, cooperate and help each other when needed. Moreover, taking politician 2's statement into consideration, it might be arguable that if one has the opportunity to participate in informal conversations like that, oneself might better or easier come to a solution of a problem. Hence, there might be reason to think that such work-efficiency might result in greater economic performance as well. Thus, as transport enables us to physically go to work and interact with people in person, one could argue that transport influence both social and economic outcomes.

However, the aforementioned argument causes a dilemma, seeing as transport is not considered sustainable due to the fact that it will always influence the environment in one way or another. In opposition to the discussion above, Oslo's municipal plan (2018) claimed that digital solutions will reduce the need for transport and thus reduce climate gas emissions as we will not need to physically go to work. Due to the fact that the Covid-19 pandemic came to Norway in 2020, it is thinkable that the informants has more experience with home office now than what the municipality had at the point of the development of the plan. Hence, the implications it has for social capital for instance, like the once pointed out by politician 2, might not have been recognized yet. Additionally, it was prominent among the informants that transport development is not a goal itself as it was not considered sustainable due to the impacts it has on the environment. These two factors raise a dilemma between the need for transport for social concerns and the need to reduce transport for environmental concerns. In light of politician 2's argument, one can on one hand argue that more work from home might result in less social capital at work which might be likely to affect work efficiency. On the other hand, transport will always to some degree impact the environment like it might be with all built environments. Based on this, one could therefore imagine that the informants suggest that one must meet in the middle and find the golden mean. Seeing as the informants considered cars to be the worst mode of transport regarding both emissions and land-use, it might be likely to assume that reducing car-use will have a positive effect on sustainable transport development.

Accordingly, there is reason to assume that working together could facilitate sustainability in the transport sector through social capital. Based on planner 7's statement on participation and taking responsibility, in light of Cuthill's (2009) description of social capital as relationships with trust, expectations and obligations, one could imagine that planner 7 indicates an opportunity to influence other people to act in a sustainable manner if one does so oneself. It is not unreasonable to think at what type of relationship one has to another person affects how this person will influence your actions. If this relationship is built on characteristics like trust, it is likely to assume that if one of these people take responsibility for sustainability, it could influence the other person to do the same. Hence, it is arguably that social capital might make people work together for a more sustainable transport system if people start taking responsibility.

5.1.2 Providing access to social infrastructure

Planner 7 discussed how transport provides opportunities to access *"the good life"* as it provides access to work and education (Planner #7, 2021). Similarly, work and education, as well as transport development, is a form of what Cuthill (2009) calls social infrastructure and is according to him the operative perspective of social sustainability. In addition, planner 8 pointed out, transport enables people to travel faster and more efficient than what we would just by walking. The planner stated that *"[transport] is about making the world smaller in a cheap and efficient manner"* (Planner #8, 2021). One can draw line between the informants' statements and the theory if one imagines that transport (as social infrastructure) operationalizes social sustainability by providing access to work and education and so forth in an efficient manner. Although, what planner 7 means with 'the good life' might not necessarily be work and education. However, it is not unlikely to assume that access to education could result in a higher chance of getting a more desired job. According to McLeod (2018), the feeling of doing something meaningful or fulfilling is considered a human need. While 'desirable' and 'meaningful' or 'fulfilling' might not necessarily be synonymous, one might still argue that a desirable job could be meaningful. Further, it might be thinkable that doing such work could facilitate happiness, which is another factor in Maslow's hierarchy of needs (McLeod, 2018). Additionally, having a job means one has income that again can provide access to necessary human needs like food and housing. Although there might be a few links that needs to connect, it is not completely inappropriate to assume that transport might facilitate the opportunity to achieve human needs through education, work and thereby happiness. Moreover, this could be linked with another aspect, namely well-being, listed as an

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aspect of social sustainability by among others Weingaertner and Moberg (2011). Well-being is accordingly associated with happiness and life satisfaction. This might provide reason to imagine that 'the good life' could be associated with all these aspects and needs. Based on this, it might be arguable that access to transport facilitates a variety of aspects and needs that one can claim are 'the good life'.

Further, one can argue that this type of 'hard' social infrastructure like transport, education and work (Cuthill, 2009), could provide economic mobility seeing as it affects one's income. For instance, planner 2 argued that efficient transport can provide higher economic mobility. Although, the planner seemed conflicted on the manner seeing as the planner claimed that efficient traveling contradicts with environmental sustainability goals. On one hand the planner argued that one wants to transport people in an efficient and time-saving manner as it facilitates economic mobility, but it will have negative environmental consequences. It is important to emphasize that when asked about what the main goals of sustainable transport should be, planner 2 stated:

> *"As little land-use as possible, as little environmental impact as possible, as few negative impacts on public health as possible […] lowest costs possible and the highest economic benefits possible"*.
>
> (Planner #2, 2020).

This indicates that economic mobility could be a value. Then, this could resemble Cuthill's (2009) understanding of social infrastructure, as it is imaginable that efficient transport operationalizes social sustainability by facilitating economic mobility as one can assume that this might influence one's income. Further, it is not unlikely to think that access to higher economic mobility might to some degree influence one's happiness and life satisfaction as it enables people to provide for one's human needs (Weingaertner & Moberg, 2011; McLeod, 2018). On the other hand, planner 2 argued that little land use, short distances and less need to travel would lead to less environmental damage and less negative effects on public health. The planner exemplified this by arguing that living close to where one works has great benefits for the environment and public health as one can walk or bicycle. This could show a concern for physical health as a component of social sustainability (Weingaertner & Moberg, 2011). These arguments from planner 2 implies a conflict between the environmental, economic and social dimension of sustainability. In correspondence, there was a disagreement

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between the informants between the ones who thought that transport is itself not sustainable and should thus be reduced, and the ones who argued that transport is crucial and mixed modes is therefore needed. For example, politician 7 argued that transport should be reduced but still needs to satisfy people's ever-changing needs. Likewise, planner 2 concluded that:

> *"The different modes of transportation have different features, with both positive and negative consequences […]. All modes of transportation have their role in the entity, and what is best depends on the transportation needs. The most important is that the right mode of transportation is used for the right travel".*

> (Planner #2, 2021)

Furthermore, planner 2's argument that people with access to efficient transport is more likely to have economic mobility might imply some equity-related issues. Two informants claimed that the poorest people in Oslo do not afford a car. According to planner 5, the same group of people live in neighbourhoods with insufficient access to public transport. Considering that Cuthill (2009) argued that transport is a social infrastructure that operationalize social sustainability, it is imaginable that this could limit their opportunities. Its reason to imagine that what opportunities one has (e.g. access to work) depends on what modes of transport are available, however, what modes of transport are available also depends on opportunities in relation to income, housing and thus access to transport. Thereby, there might be reason to think that people lacking efficient transport will remain with the same economic status. Appropriately, Cuthill (2009) and Casey (2005) both argued that social infrastructure should intend to have an equitable outcome through facilitating equal access to transport and other social infrastructure. Planner 5 argued that high-income households initially have greater access to transport services seeing as they can afford to live where they preferred. Low-income households on the other hand, did not have that choice to the same degree. Dempsey et al. (2009) discuss 'areas of deprivation' which is areas in poor environments with poor living conditions. Hence, planner 5's claim might suggest that low-income households do not have sufficient access to transport as they end up in such 'areas of deprivation'. Thereby, by analysing the interviews conducted, it can be thinkable that the richer could become richer, while the poorer remain poor if access to transport results in economic mobility. This mirrors Casey's (2005) description of social infrastructure as processes or services that enhance the capabilities of a society, as there might be reason to argue that efficient transport improves

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social sustainability by facilitating the opportunity to provide for one's human needs, while the ones lacking transport will not have that opportunity. Areas resembling Dempsey et al.'s (2009) 'areas of deprivation' was also mentioned in Oslo's municipal plan when they claimed that the poorest in the society tends to accumulate in the same poor neighbourhoods. While Cuthill (2009) claimed social infrastructure to be the government's attempt to direct attention to social sustainability, the Municipality of Oslo has directed attention to the issue in their plan, but according to planner 5, are yet to develop infrastructure to address it in practice. Although, one might find reason to imagine that it is the city government's attempt to soft infrastructure as they address community needs (Cuthill, 2009).

Without access to cars, low-income households depend on public transport to make a living. The transport system has taken effect of the current pandemic due to less people travel for work and school as they have home office. In relation to transport reduction, planner 4 called the pandemic *"the most dramatic and most efficient measure we have from an environmental perspective"* (Planner #4, 2020). As people do not have to travel to their office, there are less cars on the streets and therefore less emissions. However, three informants emphasized the fact that there are people whose work depends on them being there physically. According to politician 2, there is a connection between low-income households and occupations where home office is impossible. Resultingly, the low-income households become the ones who are dependent on transport to have an income. In addition, planner 1 stated that *"public transport today has the disadvantage that it is difficult to keep social distance"* (Planner #1, 2020). Likewise, Casey (2005) describe social infrastructure as processes that enhance capabilities. What we can draw from this then, is that low-income households might struggle to enhance their capabilities as they lack the infrastructure to do so. As this was discussed in relation to access to work, one can imagine that such capabilities could be income to pay for necessities. Accordingly, if one lacks access to work due to insufficient access to transport, opportunities to build social capital, participate in meaningful activities and be satisfied with life (Cuthill, 2009; McLeod, 2018; Weingaertner & Moberg, 2011) might be weakened. Further, planner 5 argued that low-income households do not have the opportunity to live and work wherever they like and are thus, more likely to have to travel further from their home to their workplace. Consequently, the planner argued that walking and bicycling are insufficient modes of transport again emphasizing their reliance on motorized transport. In regard to Casey's (2005) social infrastructure, this can imply that the low-income households might not be able to improve capabilities (e.g. income to pay for needs).

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5.1.3 Protecting the vulnerable

The concept of equity was prominent in the informants' interpretations of social sustainability. For instance, politician 1 argued that it concerns facilitating for the less fortunate people. Similarly, planner 7 and 6 mentioned poverty reduction. Both, poverty reduction and facilitating for the less fortunate could both be related to Murphy's (2012) understanding of equity as protecting the vulnerable. Thereby, one can argue that they might hint that equity should be to protect the most vulnerable in Oslo. What we can draw from this then, is that in relation to transport these informants might have argued that a socially sustainable transport system would be to provide transport for the most vulnerable households. In addition, seven informants mentioned more equal distribution across generations and geographic locations, as well as equal opportunities. For instance, planner 5 associated social sustainability with equal distribution of resources. Likewise, Murphy (2012) explained equity as distributing goods equally across geographical locations as well as generations.

It was clear that equity seemed to be a dominating factor concerning social sustainability, however, what was considered 'just' or 'equal' was not an easy question. The concept was discussed regarding accessibility, pricing on public transportation, toll and road taxes, and distribution of resources. Moreover, there seemed to be some uncertainty to whether the questions of equity concerned the Norwegian transport system at all. Although one might argue that equity issues in Norway might seem small at a global scale, they are still occurring (Andersen & Skrede, 2017) and thus important for Norwegian transport planning. In the municipal plan from 2018, inequality is considered one of the future challenges in Oslo (Municipality of Oslo, 2018). For example, while three informants argued that public transport, perceived as a sustainable mode of transport, should be accessible for everyone, planner 1 discussed equity and justice regarding ticket prices for adults and retirees as elders pay half price compared to an adult.

> "There are many retirees who are very wealthy, and then there are people on adult-ticket who are unemployed or are in a family situation. Is it just that a retiree pays half the price? No, it is not. But if you compare a partly paid adult and a minimum retiree, yes then we think it is very fair that a retiree pays half price".
>
> (Planner #1, 2020).

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By following Murphy (20123) linking equity to the distribution of goods and welfare, there is reason to assume that planner 1 implies that equity would be to distribute good, like discount on tickets, to the poorest people. The planner used another example claiming that a wealthy man might like the toll system and even want the tolls to be higher so that he can drive with no traffic. Meanwhile, the planner argued, a single parent who must drive his/her child back and forth and spend too much money on tolls and road taxes may think the price is too high. From a policy perspective, both examples could illustrate equity as protecting the vulnerable like Murphy (2012) did. Such understanding of equity also resembles Boschmann and Kwan's (2007) description of vertical equity as the poorer receives the benefits at a lower cost. Thus, one can argue that planner 1 suggests that equity should concern protecting the vulnerable by providing benefits (public transport tickets) at a lower cost (the price). However, one can imagine that this example rises another question of who we should consider the 'vulnerable'. As planner 1 pointed out, in monetary terms, elders are not necessarily the most vulnerable, it depends on who you compare them to. This dilemma could resemble one of Eizenberg and Jabareen's (2017) dimensions of equity, namely recognition of the vulnerable. One can imagine that if one must protect the vulnerable to achieve equity, then the vulnerable must be recognized. Although, Eizenberg and Jabareen (2017) further discuss how the vulnerable must be recognized so the voices can be heard, while in this case there is a need to recognize who the vulnerable are in the first place. Further, Boschmann and Kwan's (2007) form of equity, namely exclusionary practices, is described as separating certain members from the 'normal round' in a society. By analysing planner 1's examples in light of this concept, one can argue that the single parent is separated from the 'normal round' in society, as he/she is excluded from driving to the city centre to for example go to the national theatre with his/her child because he/she cannot afford to pay the road tolls. A natural argument could be that they can just use public transport. However, this assumes that everyone has equal access to public transport and that the prices are not too high. If so, then what Dempsey et al. (2009) refers to as horizontal equity, is obtained and the tolls and road taxes might seem less unfair.

Furthermore, planner 1 argued that even if the tolls and road taxes are low enough for people to be able to still drive, is it fair to let so many cars drive in the city centre when you know there are children living with asthma there? This adds another aspect of social sustainability, namely health. Health deems all kinds of physical, psychological and social forms of well-

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being (Weingaertner & Moberg, 2011). It is often one of the first things one think of when discussing social aspects of sustainability seeing as environmental issues, especially air pollution, can have direct effects on people's health (Bernstein et al., 2004). While planner 1 was not sure to what degree this is relevant for Oslo, the statement raises a dilemma of who to protect: people with poor health, or everyone else's freedom to drive a car. It was argued by three informants that people have the right to travel when, where and how they like. Planner 5 argued:

> *"I think that every human think about it almost as a human right that they get to choose where they want to travel […] I think most people look at it like it does not matter which mode of transport I choose, I want to choose what I want to choose. Even though you are not always able to, I still think most people would argue that they should be allowed to decide themselves what modes of transport they can use to where they are going. Especially among Norwegians, it is like that, I think. I think it is very important"*
>
> (Planner #5, 2020)

In light of Murphy's (2012) description of equity, the most equitable solution would be to protect the people with poor health if they are considered to be more vulnerable than people needing to drive their car. Regarding planner 1's statement on children with asthma, poor air quality in the city might exclude people with such health issues from being able to live there. On the contrary, it is not unlikely to imagine that restricting people from driving in the city might exclude people who depends on motorized transport from for example working there. This statement that "*I think that every human think about it almost as a human right*" (Planner #5, 2020) might arguable be more about culture than equity. Further, Cuthill (2009) claimed that equity provides access to affordable and appropriate housing, health services and education. Considering that planner 5 claimed that public transport should be for everyone, it is likely that public transport would be the most equitable option assuming that the planner means accessible for everyone in both physical and monetary terms, as it could facilitate access to such social infrastructures.

In opposition, planner 5 and politician 2 argued that the poorest people in Oslo do not have a car and therefore it is not the poorest in the society who suffers from the road taxes and toll system. Planner 5 claimed that the poorest, as well as the richest, was both the winners. The

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poorest are often also the people living close to highly trafficked roads, in areas similar to what Dempsey et al. (2009) calls 'areas of deprivation' where living conditions and environmental qualities are low. Going back to the question of whether equity is an issue in Norway or not, such areas of deprivation is underlined as a concern in Oslo's municipal plan as it stated that the poorer people tend to accumulate in poorer neighbourhoods (Municipality of Oslo, 2018). However, planner 5 argued that with high road taxes and tolls they will benefit from not having to pay but still getting reduced traffic and thus reduced noise and air pollution in their neighbourhood. This will again result in better air quality and thus health in such areas. Further, this issue can be compared with what is referred to as users-pay principle, which is by Boschmann and Kwan (2007) described as equity where one gets what one pays for. Taking planner 5's argument into consideration, what makes it equitable is that the high-income households can pay tolls to be allowed to drive, while low-income households cannot pay and thus will not be allowed to drive. However, the poorest in society they will benefit from the fact that other households who used to drive are not able to pay. Thus, there might be reason to assume that they become 'free-riders' as they do not pay for anything themselves, but still receives the benefits. Again, this could be linked with equity as protecting the poor from environmental damage (Murphy, 2012). Nonetheless, if one view this from the perspective of vertical equity (Boschmann & Kwan, 2007), the poorer receives the most benefits at the least cost, while the richer must pay. Although, in this case, the richer also receives benefits as there will be less traffic. One can therefore imagine that this is a complex equity issue where both horizontal and vertical equity needs to be considered.

Nevertheless, there is an equity issue concerning the collection of tolls and road taxes to finance transport. Both planner 1 and politician 1 emphasized the importance tolls and road taxes as a financial system. According to planner 1, there is mainly an agreement among politicians that one should invest in public transport, and that Oslo is especially good at balancing 'carrots and whips. Improving the public transport service is the carrot for more people drive less. One can imagine that it is the government's attempt to achieve an equitable transport sector seeing as public transport is supposed to be accessible for everyone. However, seeing as the toll system finance public transport, planner 4 argued that it is the motorists who pays for a public transport system they do not use. It is imaginable that the motorists find this inequitable. This could again resemble an example of vertical equity (Boschmann & Kwan, 2007). If the poorest do not own a car, and therefore depend on public transport, one can argue that they receive the greatest benefits as the public transport system

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improves, while the richer motorists must pay. Similarly, when asked what mode contributes to social sustainability planner 6 argued that:

> *"Investments in public transport contributes to equalize differences by providing an offer for all groups. Road investments gives most to those who drive most car, and there is here a connection between income and car-use."*

<div align="right">(Planner #6, 2021)</div>

This could indicate that the planner understands equity as Boschmann and Kwan (2007) describes vertical equity as both investments comes from the car-user. One can imagine though, that if the city reduces car use to a large extent in the city, the previous motorists become users of public transport and can enjoy the benefits from their costs as well.

5.1.4 Engaging governance and people

The municipal plan stated that Oslo is aiming for a car-free city centre and is therefore implementing measures to reduce cars in the city which the informants had differentiated opinions about. For example, planner 4 argued that the municipality has done some drastic measures, but simultaneously shown the inhabitants that it is possible to create good and lively living environments and street spaces. Additionally, planner 8 argued that it was the best thing that had happened for micro mobility. From this, one can imagine that such goal is considered a positive contribution to sustainability. Contradicting, five of the informants stated that although they agree with the goal to reduce cars for both environmental and social reasons, they indicated some concerns for what measures are used. The politicians were particularly concerned. For instance, politician 1 called it *"symbol politics that has had no effect but to irritate the motorists"* (Politician #1, 2020). Here, blocking of roads that has previously managed a big share of the in-and-out going traffic in Oslo was discussed. Followingly, politician 2 discussed the European Green Capital Award the city received in 2019 and stated that.

> *"It lifts Oslo up, and it is an EU-project, so you get some attention in other European countries. That is very positive. But it is something about the use of money that makes you wonder… […] The same goes for the last question and some of the measures taken concerning what we call a car-free city-life, that one should create life in the streets and then it is conducted in a way that ends up just being laughed at, they could*

have consulted a bit more and done measures that people actually agrees with [...] It creates conflict".

(Politician #2, 2020)

The politician highlighted the importance of including people to minimize conflict. The politician argued that to minimize the risk of conflict one needs to communicate and listen to the people it concerns, and the different needs of different people. This is in line with the aspect of participation as meaningful involvement and a place where people interact as equals (Eizenberg & Jabareen, 2017). Accordingly, one can argue it was indicated that to achieve equal inclusion in participation, everyone with different needs must be allowed to participate. This inclusion of people could resemble Cuthill's (2009) concept of engaged governance. Engaging the people to participate in decision-making process is argued to be beneficial for both the individual as well as for the government (Cuthill, 2009). Based on this, it is not unlikely to assume that the politician implied that if the people were included and consulted before these measures was implemented and had gotten the opportunity to participate in the process, they might have been more optimistic about the outcome. Likewise, Cuthill (2009) argued that the possibility that people consider these policies legitimate could increase if they are allowed to be a part of the decision-making process. Thereby, the politician could be anticipating that if they had consulted with the people before implementing such measures, the conflicts and criticism might have been reduced.

Moreover, politician 2 additionally argued that for some people such measures happened a bit abruptly. For instance, the politician claimed that some people struggle to understand how they just paid resident parking and then suddenly all the parking spaces are being removed. There is another example from when all the handicap parking spots was removed from the city hall. the politician added that when people are included in the process, one cannot forget about groups with different needs. This could imply that the politician did not only concern participation for the sake of engaged governance and policy legitimacy, but also that it was a way to facilitate for all people with different kinds of needs. Likewise, McKenzie (2004) claimed that political advocacy is crucial to be able to address the needs people cannot provide themselves. It is arguable that this transport infrastructure is not something people can provide themselves without help from the city government. Further, one can imagine that as they removed the handicap parking spaces, people with disability are excluded from the

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opportunity to visit the city hall. Therefore, this could be interpreted as a concern for inequitable practices in line with Dempsey et al. (2009) and Boschmann and Kwan's (2007) understanding of equity as exclusionary practices. Furthermore, it could resemble Cuthill's (2009) understanding of equity as the ethical foundation of social sustainability policies seeing as the politician laid the responsibility on the government. If the government used equity as an ethical foundation for their sustainability policies, one can imagine that equity issues would occur to a lesser extent than today. Thus, including all kind of groups of people in such a decision-making process, could have great effect on the social outcome of sustainability measures.

Continually, politician 2 argued that people claim that everyday life has become challengeable for them and added that it is a part of social sustainability, and it is worth listening to. This is exemplified in a story the politician talks about a man with a bar who had a truck come in every now and then with a hose to access beer:

> *"He needed to get beer delivered in a tank truck to his bar, and it was drawn in a parking space for the tank truck on the other side of the street. He said it is fine, we can stretch and get a hose on the other side of the road and pump beer into the tank at the pub. But in that street, there is a tram […] They have two competing needs, but then it is done right after that night […] they managed to talk and find a solution to cover the needs for the guy in the bar and reduce car traffic in that street"*.

<div align="right">(Politician #2, 2020)</div>

As politician 2 further emphasizes, this illustrates the benefits of including the people who are affected by the changes in the process to make sure needs are satisfied. The politician calls it *"stupid conflicts that one can find a solution for if people just talk to each other"* (Politician #2, 2020). The need to consult and engage the people in decision-making processes could resemble the concept of engaged government where the government built countervailing power among the people. By doing so, one can argue that the people feel like they get to participate and are listened to. Going back to Uteng's (2007) example the introduction, it is thinkable that if one includes immigrants and other minorities in decision-making processes like this, it might increase levels of integration and their chances of becoming active agents of society. If so, one might be more likely to avoid inequity and exclusionary practices. Followingly, one can imagine that people and the government can work together for the

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common good and thereby increase sustainability (Cuthill, 2009). Besides, planner 1 argued that the people are the most important demander and most important actor of transport development. The planner exemplified cooperation for sustainability as it was argued that the more people who use public transport, the better accessibility the society achieves. This could add another dimension to Cuthill's (2009) idea that we must work together for social sustainability. While Cuthill's argument were based on the people and the government working together, planner 1 and 9's argument gives the power and responsibility to everyone in a society. Further, one can relate this back to politician 1's statement claiming that it is the interaction between people that creates the society. If we are to achieve a good sustainable society, we need to act together because it is together that the good society is created and therefore it is there where we can make it sustainable. Hence, one can imagine that if the people within a society do not work together, there might be reason to argue that sustainability cannot be achieved. This corresponds with Cuthill's (2009) claim regarding engaged governance which includes countervailing power. In opposition, politician 2 claimed that monetary costs facilitate, or at least plays an important role, in the decision-making process on what mode of transport to choose. Hence, the politician argued that the prices of public transport need to go down for more people choose that mode of transport. This gives the power back to the politicians and planners, as it could be understood as the politician held them responsible for people not using public transport. Although, one can imagine that they need to take responsibility by communicating with the people and thereby empowering them to collectively find a solution for more people to use public transport. Hence, one can link it back to countervailing power (Cuthill, 2009). Additionally, planner 5 claimed that seeing as the market cannot fix equity issues within the transport system, the government needs to take responsibility. For instance, the planner argued that in areas such as Africa and Asia the transport systems are not as good as in Europe due to poor government. The planner claimed that the role of the government is to collect taxes and distribute to the ones who have less. One can argue that these arguments implies a huge responsibility on both the government concerning equitable access and the people to work together for sustainability.

5.2 Sustainable transport effects on urban social sustainability

As a part of the built environment, transport has a crucial role in society and cannot be separated from social sustainability (Næss, 2015; Dempsey et al., 2009, Weingaertner & Moberg, 2011). Planner 3 used the term 'life-line' when explaining the importance of the

transport system for people and goods to be able to move from one place to another was. This could resemble the argument of Næss (2015) who argued that the built environment facilitates and enables human behaviour. Based on this, it is imaginable that transport is a lifeline facilitating and enabling human behaviour, like social interactions. Further, there might be reason to think that this illustrates an understanding of how the transport system effects social aspects in a built environment. In the following sub-chapters, a discussion on key themes highlighted in the theoretical perspective of Dempsey et al. (2009) will be discussed in relation to the transport system to recognize the link between transport and urban social sustainability in Oslo.

5.2.1 Equitable access and the effects on built environments

Initially, half of the informants described sustainability in line with the Brundtland-definition stating that it concerned "*the needs of the present without compromising the ability of future generations to meet their own needs*" (WCED, 1987). Such concerns for future generations are in line with inter-generational equity which is claimed by some researchers to be an important aspect of social sustainability (Eizenberg and Jabareen, 2017). In sub-chapter 5.1.3 I discussed equity and how it relates to policies that can prevent or provide access through tolls, road taxes and ticket prices. However, it could also be applied to physical access in the built environment.

Planner 4 and politician 1 both claimed that due to lack of cross connections, a massive load of traffic on certain roads cause transport-intensive living environments which disproportionately affects the poor. This was especially an issue in Groruddalen. Politician 1 argued that the lack of public transport opportunities across Groruddalen are forcing people to drive which increases road traffic on already trafficked roads. Planner 4 highlighted the fact that it has created poor living condition in this area seeing as the large freeway creates noise and air pollution. This resembles Dempsey et al.'s (2009) description of 'areas of deprivation'. According to planner 4, it is usually low-income households who are mostly exposed to such living conditions with poor air quality. Affirmatively, numbers from the Municipality of Oslo's statistics shows that Groruddalen has a higher share of immigrants and low-income households compared to other districts in Oslo (Municipality of Oslo, 2018a; Municipality of Oslo, 2018b). What we can draw from this is that 'areas of deprivation' seems to accumulate low-income households, thereby it might be arguable that this creates a segregation between the poor living in poor environment versus the more fortunate living in

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healthier environments. Moreover, one can draw lines between these concerns and Murphy's (2012) understanding of equity as protecting the most vulnerable. It is thinkable that this illustrates a concern among the planners for lack of equity in transport planning seeing as the areas with insufficient access to sustainable transport, public transport and bicycling, also holds the highest share of vulnerable. Planner 4 stated that:

> *"Some parts of the city are more transport-intensive than other parts of the city. We have for many years work with for example Groruddalen, where tree large main roads go through, perhaps could be structured a bit different. It is kind of a controversial topic because then we need to do some large road-engineering measures, and that is a bit… It is a hot topic these days. But vi have meant to maybe make one of these main roads into another type of road that is more customized that environment and the living conditions that are in that area. Now, this is typically for Trondheimsveien where there is a lot of old buildings very close to the road. […] we could have released Trondheimsveien and used it for public transport and bicycles, and weigh less cars than today"*

(Planner #4, 2020)

Based on this, there might be reason to assume that planners and politicians in Oslo are aware of such areas of deprivation and are looking for solutions, but at least for now it is too comprehensive. Thus, one might argue that there is a concern for protecting the vulnerable, but they need to find a beneficial solution.

Furthermore, planner 5 argued that the low-income households do not have the economic opportunity to choose where they want to live, nor do they have the broadest variety of labour opportunities. Thus, they often end up being the ones in need of motorized transport to get to work. However, the planner argued that these low-income households are often the ones without a car, and the cheapest areas are often such 'areas of deprivation' located where access to public transport is limited. Hence, they end up having to choose between a cheaper home and buying a car or spend more money on a home to have better access to public transport. In correspondence, Boschmann and Kwan (2007) explains a similar example as the user-pay principle, meaning that you get what you pay for, which they call horizontal equity. In opposition, planner 5 discussed equity as equal distribution of resources. Consequently, there might be reason to argue that the planner did not find this user-pay principle to be

equitable. Followingly, one could argue that restrictions on car-use will further cause implications for the poor as owning a car will not provide mobility as it used to. Therefore, this might explain why the planning documents stress the importance of equal access to public transport for everyone. Based on this one can argue that without adequate and equal access to public transport some people might be excluded from certain key services and facilities in society and lose the opportunity to participate as we previously established that efficient transport could provide economic mobility. Planner 2 argued that although efficient transport facilitates economic mobility, bicycling and walking is preferred on short distances for environmental and health reasons. In light of Eizenberg & Jabareen's (2017) three dimensions of equity where equity implies an economic restructuring, one could imagine that a mixed land use might be beneficial for such areas of deprivation. A mixed land use entails using the land for more than one purpose, like residential, commercial and industrial land uses that serves the needs of a community. It is often used in densification of communities to reduce travel distances (Aurand, 2009). Regarding planner 2's argument, one can imagine that a mixed land use could provide a broader variety of work options for the people living in the area while facilitating for walking and bicycling. Accordingly, the division of labour and redistribution of income highlighted by Eizenberg and Jabareen (2017) could facilitate for increased equity. However, this is to assume that the people living in the area also are qualified for the new jobs arriving with the new development. Hereby, one can further discuss access to adequate education to be able to access desired jobs as we did in sub-chapter 5.1.2. Additionally, in consideration of planner 2's claim that efficient transport provides economic mobility, there might be accurate to assume that if the poorest in the city is provided access to a broader labour market simply by having access to motorized transport, it is not unlikely that a redistribution of income might occur. This further entails that the most vulnerable have a voice that is listened to (Eizenberg & Jabareen, 2017). Resultingly, one can imagine that there would be an economic restructuring concerning labour and income like Eizenberg and Jabareen (2017) included in their understanding of equity. Hence, it could be beneficial socially and economically. If such opportunities are accessed through electric public transport, one could argue that it might benefit the environment as well and thus creates a sustainable community.

Furthermore, planner 2's claim on economic mobility might give reason to assume that environmental measures like reducing transport could, in light of the aspect of social equity and exclusion (Dempsey et al., 2009; Boschmann & Kwan, 2007), result in exclusionary

practices. If reducing motorized transport (both cars and public transport) is understood as an environmentally friendly measure that excludes people from economic mobility, the low-income households who we previously established that relies on motorized transport to access work, are the ones most heavily affected by such environmentally friendly measures. Thereby, one could imagine that by reducing motorized transport, the inequity in society could either remain or exceed. Resultingly, it might weaken the social sustainability of transport. Moreover, planner 2 added that if you relay on walking, your mobility opportunities and personal opportunities are very limited seeing as you cannot travel long distances efficiently. Other modes of transport increase an individual's opportunities by having a longer span and one can travel longer on less time. The planner claimed that mobility provides the opportunity of personal growth and economic opportunities for the individual and society.

> *"Mobility provides the opportunity for personal growth and economic opportunities for the individual and for society. Mobility provides the opportunity to access the different social services in society for the individual like leisure activities or opportunities to visit family and friends. Mobility binds workplace and people together. Better mobility gives greater access to employees for the firms and larger labour market for the individuals. This provides increased economic opportunities by match the right job to the right employee".*

<div align="right">(Planner #2, 2021)</div>

Thereby, what we can draw from this considering Dempsey et al.'s (2008) concern for exclusionary practices is that it is not unlikely to think that providing mobility and equal access for everyone transport could lead to better jobs, higher income, social interaction and a wider range of opportunities to achieve one's human needs. It is imaginable that as one's opportunities increases, the chance of social cohesion and achieving subjective well-being could arguably increase as well (Rogers et al., 2012). Subjective well-being is claimed to be influencing the social sustainability as social and emotional state of individuals in different contexts (Rogers et al., 2012). Although, as already discussed, car-intensive environments are linked with poor air quality and health, and it is thus arguable that public transport for most part should facilitate for motorized access. However, eight informants claimed that cars need to be a part of the holistic transport picture to ensure mobility needs. Planner 1 for instance, argued that electric vehicles do not pollute the air in the same matter as fossil fuel cars and could thus improve environmental qualities in a community. Although, it is highlighted by 2

of the informants that electric cars are not sustainable enough seeing as it takes up just as much space in the city, and it is argued that one needs to include more than just local effects. For example, planner 5 argued that you cannot only base sustainability on local air pollution stating that:

> *"You need to include the resources needed to produce the vehicle, how the vehicle is produced where it is produced, how it is transported to the place where the vehicle is going to operate, [...] and how one operates and maintains the vehicle".*
>
> (Planner #5, 2020)

Seemingly, planner 5 suggested that one should not only include local costs in such a calculation. Likewise, Dempsey et al. (2009) and Boschmann and Kwan (2007) discuss horizontal equity in relation to transport as unfairly or unequally provision of access to people across geographic locations. Similarly, planner 5's statement shows how transport can unfairly and unequally distribute the costs – in this case air pollution – between different geographical locations. One could interpret this as while Oslo do not experience local air pollution from the electric cars they drive, the country that produced those electric cars could experience heavy air pollution from producing the cars we drive. Although, planner 5 did not specifically mention equity, it was pointed out the fact that we cannot only be concerned about our own local air pollution, but also the local environmental damages this has where it is produced, which is assumingly can imply a concern for equity across geographic locations.

Nonetheless, planner 2 argued that ideally, we should find a balance between who should drive cars and who should not. His thought was that people with the most inconvenient roads where other forms of transport is not suited, should be prioritized for car-drivers, while people living in areas where modes of transport that requires less land use and have less environmental impact suits just as well, should not drive cars. However, one can discuss this in light of Dempsey et al.'s (2009) concept of geographical equity. From this, one can imagine that people living where other forms of transport is not sufficient should be allowed to drive to remain the same accessibility as everyone else. On the contrary, it might be reason to argue that why should some people be allowed to drive, while others are not? This further could raise questions like do they live in a car-dependent area of choice or due to limited options as a result of low income? If planner 2 defends his argument by adding that they are allowed to drive based on living in an area of deprivation, the one could argue that it is a

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concern for protecting the poor. However, if the planner claims that they are *not* allowed to drive because it would be considered unequal, it could be explained as egalitarianism which is to treat everyone equally regardless of socioeconomic status or geographic location (Boschmann & Kwan, 2007).

5.2.2 Sustainable transport for sustainable communities

When the informants were asked what they considered to be the goals of a sustainable transport system, politician 1 answered this:

> *"I would say that zero emission is an important goal itself for sustainable transport solutions [...] and then there is a lot of other factors that is also necessary for it to be sustainable. We could in theory have quit releasing CO_2 if we had just shut everything down and no one got to travel anywhere. We could call it a pandemic for example. But that is not the society we want. We want a society that… meet each other, travel other places, meet other people, you know… And could go to work, not at least".*

<div align="right">(Politician #1, 2020)</div>

This statement could provide reason to assume that sustainability concerns more than just environmental impacts. As mentioned before, four informants argued that transport is not a goal itself as it will always have an impact on the environment. However, all informants argued that transport is a necessity for people and the society to function. Following the same logic, one could argue that it implies that while greenhouse gas emissions from transport is highlighted as one of the largest challenges for Oslo in the municipal plan from 2018 (Municipality of Oslo, 2018), the impact it has on the people is just as important as the impact it has on the environment. Further, it is emphasized in Oslo's municipal plan as an overall goal to become sustainable in all three dimensions (Municipality of Oslo, 2018). This could resemble the concept of sustainable communities presented by Dempsey et al. (2009). They claimed that a sustainable community is a community that can reproduce and sustain itself over time. Likewise, thought in a broader sense, a sustainable city could arguably be a city that can reproduce and sustain itself. Both Dempsey et al. (2009) and Eizenberg and Jabareen (2017) argued that the sustainability of a community is influence by its physical characteristics, and thus social sustainability should be viewed in light of these. Hence, the following sub-chapters discuss social aspects linked with an urban built environment in

relation to transport planning to reveal the links between sustainable transport and urban social sustainability in Oslo.

5.2.2.1 Social cohesion is enabled by transport

Politician 1 argued that *"a society is people, there will be no society if all people just sit alone in a nook"* (Politician #1, 2020) which resembles Dempsey et al.'s (2009) definition of social interaction. They state that without interaction a society would just be individuals living separately from each other (Dempsey et al., 2009). This could further be linked back to the discussions on how social capital can create 'the good society' in sub-chapter 5.1.1. Additionally, politician 1 argued that the ongoing Covid-19 pandemic has illustrated that home office is a possibility, but it has it limits. The politician claimed that people are social animals, and it is not sustainable that we cannot socialize. Followingly, the politician quoted the Norwegian artist Lillebjørn stating that *"human is an animal that seeks company with its own art"* (Politician #1, 2020). One can argue that this is again related to the concept of social interaction which could according to Wirth (in Dempsey et al., 2009) be what forms human nature and further leads to social order. What we can draw from this is that it might be in human's nature to interact with other humans. Thereby, a community without any social interactions could be difficult to imagine and thus might be non-existing. Similarly, the term 'social animals' is used as planner 1 also argued that during this pandemic we have come to realize how social we actually are. Interacting with other humans, especially loved ones, is included in Maslow's hierarchy of human needs and it is what motivates behaviour (McLeod, 2018). Besides, Cuthill (2009) claimed human needs to be crucial for sustainable development as it fulfils people's lives and Dempsey et al. (2009) argued that social interaction leads to social capital and cohesion. Considering these theoretical perspectives, one can argue that politician 1 and planner 1 understand the importance of transport to create a sustainable community and for people to fulfil their needs. Regarding the role of transport in a society, politician 1 stated that *"I think that is what binds us together [...] in a way a connector between people"* (Politician #1, 2020). Transport enables us to travel, and we are therefore able to interact with other people than our next-door neighbour. One can thereby argue that transport is essential to make a community sustainable as it allows us to interact with more people. In light of Dempsey et al.'s (2009) description of social interaction, it might satisfy one's human needs as it builds interpersonal relationships and social capital that creates trust and norms of reciprocity. Assuming that interpersonal relationships can influence an individual's well-being which is by among others Weingaertner and Moberg (2011) linked

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with happiness and life satisfaction, there might be reason to imagine that these aspects of social sustainability are important for the individual to fulfil human needs like safety, love and belongingness (McLeod, 2018). Hence, it could be thinkable that the informants claimed that sustainable transport is important for people to fulfil their human needs.

Furthermore, planner 8 claimed that despite being used to online meetings, meeting up in person creates a different kind of relationship between people. The planner illustrated this with an example of having a meeting with his boss:

> *"If he meets me then he gets a relation to me that is something more, we are physically there and can give each other a hug, he can see my body language. It has a value that ties us stronger together".*

(Planner #8, 2021).

Similarly, Dempsey et al. (2009) argued that social networks are influenced by social interaction but is more than just interaction seeing as it builds on trust and reciprocity norms. What planner 8 might indicate is that trust is easier to accomplish if one is to meet in person rather than online as the impression one gets might be more complete as one can for instance read the other person's body language. Hence, one can argue that the planner views transport as an infrastructure facilitating social networks as it provides an opportunity for people to meet in person and get a stronger relationship.

5.2.2.2 Transport allows more participation

Two of the informants argued that sufficient transport is needed for everyone to be able to participate in activities, but it might contradict with the goal of reducing transport for environmental concerns. Regarding the concept of a 15-munite city (Municipality of Oslo, 2018), politician 1 was a bit ambivalent to the concept and used the example of leisure activities to explain why. Firstly, the politician stated that it is a beautiful thought seeing as not having transport is more environmentally friendly. However, it was then argued that one will never have access to every single service wanted in a local community.

> *"If your child like football, then you will clearly find a football team within ten minutes from your home. But then maybe your child does not like football, perhaps your child likes ballet or archery or something which not many others like. It won't be*

natural to have an archery class ten minutes distance or 15 minutes distances from all of Oslo, but you can have one place in the city, and then you have to get there".

(Politician #1, 2020)

According to Dempsey et al. (2009), participation is essential for sustainability seeing as it facilitates social networks, capital and cohesion. What we can draw from politician 1's statement then, might be a concern for children to not being able to participate in leisure activities they because it could reduce their chances of creating social networks, like friends. Although, it seems like the politician was not concerned for lacking any form of leisure activities, but leisure activities that might not be the most 'popular'. Based on that, it is reason to argue that it is not about making friends, but rather about not being able to do something they enjoy. This again brings us back to fulfilling human needs by doing something fulfilling (McLeod, 2018). Considering that Dempsey et al. (2009) claimed that participation is not unsustainable if it does not happen in the local community (in this case the 15-minute city), it is imaginable that participating in activities outside of the 15-minute city, might be just as sustainable. However, then we are back to the informants' point that transport is needed but should be reduced.

Furthermore, planner 1 claimed that there is a difference between households with children and their opportunities to participate in leisure activities. On one side, there are households with two or three cars able to transport their children to whatever leisure activity they want to participate in. On the other side, children with immigration backgrounds often comes from families with no cars.

"I think we can see clear examples from areas in Oslo where especially children with immigration background have trouble with accessing leisure activities because the parents cannot afford a car, and the public transport service might be bad or is experienced as difficult as one does want to have small children taking the metro and have transfers"

(Planner #1, 2021)

In relation to the aforementioned statement, planner 1's statement does not concern access to a variety of leisure activities, but rather access to transport to be able to participate in any activity. Considering Dempsey et al.'s (2009) claim that participation facilitates networks and

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social capital, this statement could indicate that these children might end up lacking social capital when they grow up if they have insufficient access to participate in leisure activities as children. One can draw lines between planner 1's statement and Uteng's (2007) claim in the introduction that Norway needs to make immigrants active agents in society. Based on this, it is likely that planner 1 has a concern for how well children with immigrant background will integrate in society. His statement is in opposition to Oslo's municipal plan claiming that *"the municipality needs to facilitate for children to be able to participate in activities with friends, independent from the grownups income"* (Municipality of Oslo, 2018). The municipal plan further states that dropping out of school is often connected with the economic and social background of the parents (Municipality of Oslo, 2018). Therefore, assuming that increasing children's access to participate in leisure activities might help them integrate in social networks and in society, it might increase the possibility of not dropping out of school. However, as planner 1 pointed out, sufficient transport is thus a necessity. Seeing as cars are considered unsustainable, it might be reasonable to think that leisure activities should be provided in all communities. Although, taking politician 1's statement into consideration, one could argue that electric cars also should be a part of the holistic transport picture to ensure access for everyone to achieve their human needs.

5.2.2.3 Transport influence community stability

Reducing the need for transport might increase the stability in a community as one does not have to worry about distances to work for example, in the same way. For instance, planner 8 stated that home office and online meetings were more efficient for people as it saves a lot of time:

> *"I am thinking that it can make society more efficient in general, because for many it means that you get back two hours each day as you can go to your office in your guestroom, so that means you do not have to commute from Drammen or Tønsberg to Oslo".*

(Planner #8, 2021).

Furthermore, the planner pointed out that living and working in the same building can expend the labour market as one can work for anyone with the opportunity of home office no matter where you live, which according to him could be very beneficial for the districts. In light of Dempsey et al.'s (2009) concern for resident mobility, planner 8's argument can indicate that

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one does not have to move as one gets a new job if one has home office which might reduce the residential turnover. Thereby, there is reason to argue that the planner thinks community stability will benefit from people working from home.

Following the aforementioned example of leisure activities in a 15-minute city, politician 1 elaborated on the issue and stated that it was additionally ambivalent to the concept due to Norwegian's love for nature. The politician stated that if we are to live more compact, we need to build a lot of multiple-floors apartment buildings, which accordingly, is not considered being very environmentally friendly either. In addition, Norway has a lot of open space and the politician do not think that building '100-floors houses' in Oslo was the most environmentally friendly choice. The politician claimed that Norwegians enjoys having an outdoor space and stated that:

> *"I think it is in the Norwegian's nature to want to have a small farm with cows in the backyard and stuff, or at least a townhouse with a little garden spot […] I think people should have lower buildings especially in a toddler phase. That I think, is not something you should take away from people".*
>
> (Politician #1, 2020).

Bramley et al. (2009) claimed that having access to a garden relates to community stability which again influences the sustainability of communities. Thereby, it is likely to imagine that preventing people from having access to gardens by building dense cities might affect peoples' satisfaction and happiness and thus it is arguable that the community stability is weakened. In light of Dempsey et al.'s (2009) claim that stability influence interaction and participation in community activities and strengthen the sustainability of that community, one can further imagine that facilitating people to live with gardens could increase social sustainability. If one pictures a neighbourhood with single houses with gardens and children playing and the adults talking, it might provide reason to think that politician 1 implied that gardens could facilitate a neighbourhood with social capital and cohesion. However, one can imagine that in a sprawl city, more transport is needed. Thereby, the dilemma is whether the development should aim for density, less transport and thus less damage to the environment, or sprawl development with more greenery but also more transport needs. In summary, according to planner 8 reducing transportation needs might lead to an increase in community stability because one saves time on not traveling, and there are fewer reasons to move.

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However, according to politician 1 a sprawl community with more transport needs might be more appealing for families who wants access to for example gardens.

5.2.2.4 Sustainable transport influence sense of place and community

Living in a neighbourhood with high environmental quality and living conditions could increase one's sense of place. As mentioned above, the Municipality of Oslo has found that the poorest in society tend to accumulate in the same neighbourhoods and that the poorest ones are usually people without a car but tend to live close to highly trafficked roads. It is argued by Dempsey et al. (2009) that people's sense of place influence society's social sustainability seeing as it concerns "*people's enjoyment of the neighbourhood in which they live*" (Dempsey et al., 2009, p. 296). Dempsey et al. (2009) use sense of place when discussing the physically built environment of the neighbourhood. Based on this, and politician 1's previous argument regarding access to gardens, it might not be unlikely to think that access to gardens can influence one's sense of place. Correspondingly, politician 1 stated that gardens are something Norwegians enjoy which indicates that a sense of place could be of importance for social sustainability. In opposition, planner 4 discussed poor living environments as mentioned in sub-chapter 5.2.1. From her point of view, it might be assumable that the poorest group of people living close to highways without access to cars, might not enjoy the physical settings of their neighbourhood very much. Additionally, planner 5 stated that cheaper neighbourhoods like those, often are in areas with insufficient access to public transport as well. Regarding sense of place, what we can draw from this is that access to transport may affect sense of place as transport usually are considered desirable.

Planner 4's statement on the poorest accumulating in areas of deprivation could arguably have a positive effect on peoples' sense of community. Dempsey et al. (2009) described this as people's relations to others in their neighbourhood. Assuming that people enjoy the company of others of same socioeconomic status, then one can imagine that living in an area with others of same socioeconomic status is preferred. Planner 4 never argued why the poorest tend to accumulate in the same neighbourhoods, although this provides reason to think that it might be both monetary and social reasons behind it. If that is the case, social interaction and social cohesion might additionally increase. Resultingly, accumulations of people from the same socioeconomic group might increase a sense of community and thus social sustainability. On the contrary, planner 4 did not state that these accumulations of people in poor living environments was a good thing. Thereby, it could be comprehensible that it

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indicates that sense of community is just one out of many aspects of social sustainability. In summary, while none of the informants directly address the aspect of sense of place and sense of community, it might not be unreasonable to argue that it was to some degree implied.

5.2.2.5 Safe and sustainable transport

Some measures taken to reduce car traffic in Oslo has included physically blocking of certain roads that was previously open for traffic and is criticized for jeopardizing people's safety. Politician 2 criticized it as it does not only keep out unwanted private traffic, but also other vehicles like as handicap cars, needed craftsmen, moving trucks as well as emergency services such as fire trucks and ambulances.

> "I do not believe that Oslo city centre in the future will be based on cars, that I am pretty sure off. But there is a challenge, because the same measures that keeps the private cars out, if you use physical blockings for example then you suddenly have… the cars for disabled does not have access, or the emergency vehicles does not have access, or the craftsman does not have access. So, for me, it is important to find a solution where there is still room for the commercial vehicle".

(Politician #2, 2020)

Based on this, one could argue that this indicates a concern for people's safety, health and well-being. Dempsey et al. (2009) claimed that the feeling of safety is facilitated through security in the community. What we could draw from this then, might be that people living in areas where the roads are blocked might live with a feeling of unsafety due to the lack of security, in this case emergency vehicles' physical access. While Dempsey et al. (2009) discussed security and safety in regard to crime and disorder, this adds another perspective of safety in a built environment, namely safety that regards the physical setting rather than social cohesion. However, one can find similarities from politician 2's example and what Eizenberg and Jabareen (2011) called the right to safety. They argued that people have the right to be protected and secured while experiencing vulnerability. While their examples related to environmental concerns, one could argue that for example being sick also is a state of being vulnerable, and thus should be a situation where one has the right to get help.

Safety is also discussed in relation to the increased use of micro mobility, such as electric scooters since they are claimed to blocking the roads. In line with the right to safety

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(Eizenberg & Jabareen, 2017), the city government is criticized for lack of regulations regarding electric scooters. Politician 2 stated that:

> *"I think the electric scooters they are not so good. I have gotten some inquiries from Norwegian Handicap Association and Norwegian Association of the Blind who are very frustrated due to the electric scooters laying scattered around."*
>
> (Politician #2, 2021)

This also resembles Eizenberg and Jabareen's (2017) right to safety. Based on the statement, it might be thinkable that politician 2 shows a concern for the safety of disabled and blind people. Similarly, politician 1 claimed that a lot of people are angry at such micro mobility as they are blocking the roads for visually impaired which also implies a concern for the blind. Both politicians accepted that the electric scooters are an offer seeing as people seems to enjoy them, but they acknowledged that regulations should have been implemented so that they are not in the way for other people on the streets. Politician 2 continued by stating that:

> *"so, if social sustainability entails that one should also be including in that way that everyone should have access, then the problem with the scooters lies tossed on the road can be in the way of that, so we are trying to do something about that, regulating better. It is okay to have them, people like them. But something has to change so that there is an overview of there they stand and where they belong".*
>
> (Politician #2, 2020)

She further adds that the city government has tried to create some regulations, though it requires a change in the Norwegian law, and it has therefore been forwarded to Stortinget and is being processed at the time of the interview. This concern additionally implies a form of equity. Based on this, it might be thinkable that the politicians' views equity as protecting the poor. Furthermore, planner 8 and politician 2 both argued that micro mobility like electric scooters are efficient modes of transport in the city. In light of previous discussion on efficient access impact on economic mobility, such mode of transport might improve people's opportunities to economic mobility. Followingly, politician 1 stated that scooters are fun, and argued that the market will adjust as it matures: *"it is like childhood diseases I think, people have to learn how to handle them"* (Politician #1, 2020).

Concern of safety emerged as an issue in relation to bicycles as well. For instance, planner 8 argued that bicycles need their own lane so that they are not in danger of harming anyone. Politician 2 elaborated on the matter and argued that it has been very difficult to bicycle in Oslo in the past, however it is becoming easier. The politician compared bicycling in Oslo with London stating that:

> *"It is a city that is denser, the traffic, especially back then, was rougher and larger, but both the bicyclist and the drivers knew the rules and behaved, so it worked in a way. But in Oslo, there are huge conflicts between the bicyclists and the drivers that I think is about that people do not know the rules and do not know what to expect and not to expect".*

(Politician #2, 2020)

One can argue that this illustrates another example of safety in Oslo. Correspondingly, politician 1 argued that bicycle development has been good so far but was beginning to become a bit impatient. According to the politician, it is not easy to be a bicyclist in Oslo seeing as the city is built on the cars premisses. Although, more people are bicycling in the city which was emphasized is a good thing, it becomes a challenge as the growing proportion mainly are unsecure bicyclists who do not master the traffic situation. Hence, the politician argued that it is necessary to make it safer for bicycling for the ones who wants to bicycle but are not 'cowboys' who handles the traffic perfectly. The politician claimed that people should be able to expect that it is safe to bicycle, also for the older women taking a calm little bicycle trip. Thereby, one can argue that reducing car-use while enhancing micro mobility could be beneficial for sustainable transport development, as long as regulations and behaviours ensure that it is safe for everyone. One can further relate this back to the previous discussions on working together to increase sustainability. If everyone is to be safe in the streets, whether it is as a walker, bicyclist or driver, it is arguable that everyone needs to behave in traffic and respect other. Although, changing the behavioural patterns of an entire city could be challenging, starting with regulations from the government and an engaged governance that includes the people could be a good starting point.

6. Conclusion

In this thesis, I have studied if and how the social dimension of sustainability is included and operationalized by planners and politicians in Oslo. The purpose was to shed light on the importance of including social concerns in sustainable transport planning in particular and examine whether and how this importance is being considered by Oslo's planners and politicians. The thesis is motivated on the basis of literature arguing that the social dimension is often neglected, and recent criticism stating that sustainable transport policies lack a of concern for social equity and inclusion.

In order to address the research question, I draw on two different theories of social sustainability: a) the theory of Cuthill (2009) emphasizing the importance of engaging the governance and working together for social sustainability and b) the theory of Dempsey et al. (2009) regarding linking aspects of urban social sustainability to the built environment. These perspectives of social sustainability have enabled me to examine the social dimension of sustainable transport in the context of urban development in Oslo. In Oslo's municipal plan from 2018 social sustainability is included as one of the main goals. However, in transport planning documents, few social concerns were addressed. Based on literature and the reading of the planning documents I wanted to further investigate how transport can influence different social sustainability aspects highlighted in the literature.

I find that the most prominent social aspects from the planners' and politicians' perspectives are equitable access, interaction and creating interpersonal relationships, as well as participation and cooperation. While the environmental dimension still dominates in the planner's and politician's associations to sustainability, it is interesting to see how well rooted the social dimension is as well. I find that the informants have a clear understanding of the importance of transport to satisfy societal and human needs.

I find that the research indicates that equitable access provides an ethical foundation for the informants from which a socially sustainable transport system should be built. The informants made it clear that access facilitates opportunities and enable people to access social infrastructure, participate in activities, and social interactions and capital creation across geographical locations. Thereby, I find that equity lay a foundation that can further facilitate other aspects of social sustainability.

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Further, I find that transport supports human and societal needs as it enables people to fulfil their human needs and might facilitate economic growth. Transport provides efficient travels giving access to important social infrastructures and enable people to interact across geographic location. This gives access to education and work which influences people's income, and it facilitates friendships and other interpersonal relationships. Both of these factors enable people to fulfil their human needs, like food, housing, love, belonging and safety. Thereby, I find that it could be arguable that if equitable access is provided to everyone, one could imagine that everyone would have a greater chance of fulfilling their human needs. What is more surprising is that I find that the research suggests that social interactions and capital could increase economic growth as work is carried out more efficiently. The informants claimed that idea-sharing and problem solutions are more efficient in person. Based on this it is not unlikely to think that it could have a positive impact on the workplace's outcome and thus enhance economic outcomes. Further, one could assume that environmentally friendly transport supports a sustainable city as it promotes social cohesion and economic growth, while being environmentally friendly.

Lastly, I find that the research suggests that participation and cooperation can have a substantial positive effect on social sustainability. The informants argued that taking responsibility and participating in making more sustainable transport choices can have a substantial effect on transport sustainability. Additionally, they argued that the city government has a role in including people in decision-making processes. What I draw from this then, is that if we all take responsibility where we can, more people will travel sustainably which will be beneficial for the environment and for future development of sustainable transport. In addition, I find that participating in activities (leisure or democratic) could increase one's social capital. Thus, I find it is accurate to think that we can influence more people to do the same, and thus enhance sustainability all over.

For future research, it would be interesting to investigate the people's perspective of the social dimension of sustainable transport. It would allow us to understand the travel behaviours that affects the transport system in Oslo. Moreover, examining the different aspects of social sustainability more one by one could provide a better image of the particular challenges Oslo faces.

Further, it would be interesting if more politicians were included to get the aspects of a broader variety of politicians. Seeing there are nine large political parties in Norway, two politicians is not sufficient to get the whole picture, nor compare planners' and politicians' perspective, which would have been interesting to examine if there are any conflicting perspectives. Moreover, the theoretical perspectives include important social aspects of social sustainability, however, I find that the research shows that they fail to acknowledge the what the goal of social sustainability is and how these social aspects together satisfy human and societal needs.

Finally, this research does not only show what social aspects are included in planners' and politicians' perspectives, but also how these aspects are connected and contributes to fulfilling both human and societal needs. Through significant perspectives from key informants, this research highlights the importance of taking social concerns into consideration when planning for transport, and thus contributes to the growing body of literature on social sustainability.

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Appendix

Appendix I: First interview guide

1. What is the first thing that comes to mind when you hear the word sustainability?
2. How would you describe the term sustainable transport?
3. What do you think should be the main goals of the development of a sustainable transport system?
4. What measures within the transport sector do you consider to be sustainable?
5. What indicators do think are the most suitable to measure how sustainable a transport system is?

6. How would you describe the terms transport and mobility?
7. What do you think is the role of transport in society?
8. To reduce the need for transport has become a measure for sustainable transport, what do you think about that?
9. What do you think about the measure to reduce car traffic in Oslo?
10. How do you think public transport can contribute to sustainability?
11. What are your thoughts on micro mobility and walking in relation to sustainability?

12. How would you describe social sustainability?
13. What role do you think the transport sector plays in preserving social sustainability?
14. What transport measures do you think benefits social sustainability the most?
15. Social sustainability concerns among others equity, what do you think about equity regarding sustainable transport?

16. Where would you argue Oslo is most prominent when it comes to sustainable transport?
17. What could Oslo do better?

18. Oslo became European Green Capital of 2019, what do you think about that?
19. Is there anything you would like to add?

Appendix II: Second interview guide

1. Why do you think transport is important for an individual's mobility?

2. Why do tou think it is important for the society that we are able to be mobile?

3. Which of the following modes of transport do you think have the largest effect on social sustainability? Why?

    a. Car

    b. Public transport (buss, tram, metro)

    c. Micro mobility (bicycle, electric scooters etc.)

    d. Walking

4. Do you think there is a connection between people's living conditions and what modes of transport they choose?