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STVM25
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The social pillar of urban sustainable development

A policy analysis of 20 years of sustainable development and environmental policy in Malmö

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Abstract

Sustainable development is a prominent perspective within local planning and policy and the three pillars of sustainability (ecological, economic and social) can both synergize and conflict. In this essay social sustainability is analyzed in relation to ecological sustainability to explore their interplay and relationship. The study is conducted using a content analysis and a theoretical policy framework to analyze just over 20 years of planning and policy focusing on sustainable development and environmental issues. The empirical case is the city of Malmö which has a progressive sustainable development work. The results show a trend over time of more integration between social sustainability and ecological sustainability generating both social and environmental benefits but also more potential goal conflicts as social sustainability gain status. Additionally are the dimensions of social sustainability, namely social equity and sustainability of community, used as a conceptual framework showing that both dimensions are present within the analyzed planning and policy.

Key words: urban sustainable development, social sustainability, ecological sustainability, policy analysis, Malmö

Words: 16086

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1 Introduction

Cities are seen as new frontrunners within environmental politics, focusing both on mitigation and adaptation of climate change as well as other environmental issues. Being the home to almost half of the world's population, cities are one of the largest consumers of energy and natural resources. As climate change and other sustainable issues become more dire, local governments respond through low-energy transportation, recycling and waste management, and ecologically sustainable housing (Khan et al. 2020). However, during the last couple of years research has shown that the municipal responses to environmental issues can worsen social sustainability as goal conflicts between ecological and social sustainability arise. Ten years ago, Sarah Dooling (2009) coined the concept of *ecological gentrification* (also known as *green gentrification*) suggesting that public green spaces in cities, such as parks and trails, exclude and displace the most economically vulnerable groups in the city. This hypothesis has been confirmed by other researchers focusing more on how public green spaces attract more affluent dwellers, causing an increase in housing prices and displacement both within neighborhoods and entire cities (Anguelovski et al. 2018; Immergluck & Balan 2018; Garcia-Lamarca et al. 2019). Another example of displacement due to environmental policy is energy retrofitting of buildings to lower energy consumption which often leads to higher rents (Mangold et al. 2016). All this is further developed by Rice et al. (2020) which recently suggested the concept of carbon gentrification, that is when affluent individuals are attracted to sustainable, dense areas with low-energy modes of transportation. As cities often wish to attract affluent citizens this type of urban planning is prioritized, often on behalf of social sustainability.

There seems to be a goal conflict between ecological sustainability and social sustainability on a local level as environmental development is gained at the expense of an unequal housing situation, access to green spaces and transportation. As stated above, environmental issues and the ecological pillar of sustainability are prioritized questions for local government. However, at the same time is the concept of social sustainability unclear and vague to many. Among the three pillars of sustainable development (ecologic, economic and social) the social is perhaps the least defined and even though the concept of sustainable development refers to a balance of the three pillars the dimensions of the social pillar remain indefinite (Opp 2017: 288; Murphy 2012: 15). The potential goal conflict between ecological sustainability and social sustainability can then be enhanced by the fact that social sustainability as a concept is not as clear-cut and therefore more difficult to comprehend for both local governments and the citizens.

1.1 Aim and research question

The study's aim is to describe and analyze social sustainability in relation to ecological sustainability within local sustainable development and environmental planning and policy. As sustainable development becomes more present within local policy, researchers argues that there is a need for more linkage between the social and ecological pillar as goal conflicts can otherwise emerge between them, usually disfavoring the social pillar. To more deeply understand the relationship between the two pillars, it is valuable to study an empirical case (Malmö) over a longer period of time (+20 years), which this study seeks to do. To explore and define social sustainability even further the results from the empirical case are analyzed using a conceptual framework on dimensions of social sustainability. This can provide both theoretical and practical understanding for social sustainability in general and in relation to ecological sustainability. This study then aims to deepen the understanding of social sustainability within local sustainable development and environmental policy. The first question aspires to be descriptive whilst the second question has a more critical perspective. Thus, the thesis will answer the following questions:

a) How has social sustainability been addressed and understood in relation to ecological sustainability?
b) Which dimensions of social sustainability are addressed in relation to ecological sustainability?

1.2 The empirical case: Malmö

The city of Malmö describes itself as 'A young, global and modern city' and elaborates that 'The citizens of Malmö should feel proudness over their young, global and modern city where questions on equality, anti-discrimination, the environment, and participation is on top of the agenda' (Malmö stad n.dc: 14). In a more general perspective Malmö is a post-industrial city characterized as a modern knowledge city with a focus on sustainability. The city's transformation, which took place during many decades and plateaued at the turn of the millennia, from an industrial town to the knowledge intensive city it is today has been deemed as successful. During the latter half of the 20th hundreds Malmö lost an important employer when Kockums closed down, which at its peak had been one of the largest shipyards in the world. Attempts were made to continue being an industrial city, but as Malmö was hit by an economic crisis during the 1980's the city changed direction and in the 1990's the city aimed to become a knowledge city (Dannestam 2009: 112-120). 'The knowledge city' would allow Malmö to compete in a new, globalized and post-industrial economy. This was achieved through the founding of Malmö university in 1998 and transforming the former shipyard in Western Harbour into a modern waterfront development area to support the new knowledge economy. However, as sustainability became popular

within urban development, the planning of the Western Harbour changed direction and instead positioned itself as an environmentally sustainable development project. This eventually resulted in the Western Harbour being viewed as a cutting-edge example of sustainable urban development in Europe. Today the city of Malmö is becoming environmentally sustainable by being a *low-carbon* city and a 'smart' city (Bulkeley & Stripple 2020: 6-7) but as Malmökommissionen, an independent commission created to investigate the differences health in Malmö, states the city is well-known for its focus on environmental issues in combination with urban development as the city has ambitious goals and strategies. However, at the same time are the social differences increasing in Malmö which is an unsustainable development (Kommission för ett socialt hållbart Malmö 2013).

1.3 Scope and limitations

The study aims to investigate sustainable development and environmental planning and policy, focusing on the ecological and social pillar. The case, Malmö, describes itself as 'a young, global and modern city' and also as a frontrunner within sustainable development (Malmö stad n.dc: 14). The city has a progressive sustainable development and environmental policy which can be investigated and learned from. By focusing on only one case and analyzing it over a longer period of time (+20 years), the development of sustainability policy becomes more clear. This allows for a more comprehensive understanding of how the social pillar has been addressed in sustainable development and environmental policy over the years. This time frame (1997-2020) covers an important change within local environmental policy and planning as environmentalism and ecologism became important new directions within urban planning during the 1990's and in Europe sustainable neighborhoods were developed (Drilling 2013: 105).

Local sustainable development and environmental policy covers a range of issues and is often integrated into other political domains such as transport, waste management, local government procurement, housing and living environments and more. In this study social sustainability is explored within sustainable development and environmental planning, strategies and reports.

Lastly, the thesis is limited to planning and visions with a lesser focus on results and effects. As said, this study intends to cover a certain time frame where local environmental policy has undergone a change and the scope of this thesis simply does not allow for measuring both policy and result for such a long development.

1.4 Outline of the study

The thesis uses a content analysis and two theories to answer the research questions. In the following chapter the theoretical frameworks are presented consisting of a theory by Murphy (2012) which is intended to answer the first research question. This theory examines how organizations understand sustainable development policy focusing on the social and ecological pillar. This is followed by a conceptualization of social sustainability and social equity which is intended to answer the second research question by analyzing the results from the first analysis using the dimensions of social sustainability. In chapter three method and material is outlined starting with the qualitative content analysis which concentrates on procedure and concepts of the method and how these are applied in the thesis. The method of content analysis is light enough to enable the theories to play a central part of the analysis, but at the same time provides enough structure to systematically analyze the data in a valid and reliable way. Lastly the material and data collection are presented with motivations on material selection.

The fourth chapter contains the first analysis which answers the first research question. Sustainable development policy and environmental policy is analyzed chronologically using Murphy (2012). Chapter five answers the second research question with a analyzing discussion on the results of chapter four. Chapter 6 presents the conclusions of the thesis, policy recommendations and future research and lastly in chapter 7 we find the references and in chapter 8 the appendix.

2 Theoretical framework

To explore and evaluate social sustainability in local sustainable development two theoretical frameworks are used. In sub-chapter 2.1 the first theoretical framework is presented which is a theory understanding social and ecological sustainability in policy. This theory by Murphy (2012) uses the concepts of equity, participation, awareness for sustainability and social cohesion to describe and analyze policy. Sub-chapter 2.2 is a literature review and conceptual framework on social sustainability and social justice as they are introduced as concepts.

2.1 A social sustainable development framework for policy analysis

Murphy (2012) has developed a framework for policy analysis of the social pillar of sustainable development. The framework aims to understand the social pillar of sustainable development and also to define the relationship between the social pillar and the environmental pillar. This is done by exploring states and organizations' understanding of the social pillar and its environmental links. The framework stems from a comprehensive literature review of both policy documents and academic literature where Murphy finds that the definition of the social pillar is vague as are the interpillar linkages between the social and the environmental sustainable development. Murphy suggests a framework of policy analysis to examine and evaluate the issues within states or organization's policy. Since this study researches policy on a local level the framework is modified to fit with urban sustainable development policy and planning. Khan et al. (2020: 4) argues that the framework can easily be applied to a local level since the policy addressed in Murphy's framework also occurs on a local level.

The suggested social and environmental framework focuses on four dimensions: equity, awareness for sustainability, participation, and social cohesion. In this sub-chapter the dimensions are presented by both discussing the perceived issue of the dimension as well as presenting suggestions on policy commitments relating to both social and environmental sustainability. The policy commitments are interpreted as indicators and a more detailed framework of the indicators are presented at the end of this sub-chapter.

The concept of *equity* (1) is central within social sustainability. Equity covers a range of political areas, but the aim of the concept is the same in all, namely to provide equal opportunity for all to meet their needs and fulfill their potential. From a policy perspective this refers to policies of fair distribution of

resources and welfare. Since the framework aims to examine an empirical phenomena, states' and organizations' understanding of the social pillar, Murphy's framework is conceptualized from empirical examples. The empirical examples focus on policy objectives and how they relate to environmental issues. The author focuses on two different areas of equity in relation to environmental issues and the first area concern how the effects of climate change and other environmental issues mainly affect exposed groups in both the global North and South. Marginalized groups generally live in areas more exposed to the effects and climate change and they also have fewer resources to cope with the consequences. Additionally, climate change mitigation risks affect the working class more than the middle and upper class since environmental taxes of various kinds get disproportionately higher for the working class because the working class tend to live in less energy-efficient houses and be more dependent on oil and coal. This injustice is amplified by the fact that emissions have a strong positive correlation with wealth and that the developed countries and affluent individuals emit more whilst not experiencing the negative effects of climate change to the same extent. Policy measures to protect marginalized groups from the effects of climate change therefore need to provide resources to assist vulnerable groups with climate change adaptation as well as proportionalized fiscal measures of climate change. There is also a need for transfers of resources from the global North to the global South. The second area of equity in relation to environmental issues covers intergenerational justice, namely that sustainable development should meet the needs of today without compromising the ability of future generations to meet their needs. One identified solution is that as emission of greenhous gases are coupled to economic growth and economic growth drives innovation in climate change-mitigating technology, the emissions and economic growth will eventually be decoupled. However, sceptics claim that the empirical evidence so far has not shown any decoupling of emissions and economic growth and urge society to reduce consumption today to aid future generations. The debate is similar to the one regarding the next concept, awareness for sustainability. Just as important as the intergenerational justice is the intragenerational justice and meeting the needs of today in a sustainable manner (Murphy 2012: 20-23).

The dimension of *awareness for sustainability* (2) uses awareness and education as tools for changing citizen's practices and attitudes on consumption. By initiatives such as eco-labeling, environmental education programs and 'green' advertising campaigns, consumers are more informed of the issue of sustainable development and are encouraged to engage in more sustainable practices. This engagement often generates support and understanding which in turn creates more legitimacy for environmental policies. Education is one of the most important policy goals within social sustainability and awareness of sustainability is the educational interpillar linkage between social and environmental sustainability. However, there is no universal definition of sustainable consumption and the jury is still out on how the economic pillar of sustainable development and economic growth should be interpreted and integrated. On the one hand the UN argues that the levels of consumption in developed countries are unsustainable and invite

more ethical consciousness regarding consumption. The sustainable development educational programs should therefore consider the potential and the limits of economic growth and its impact on society. On the other hand, the ecological modernization approach does not argue for a modification of consumption levels but rather that consumers need to change what they consume by focusing more on organic and green products (Murphy 2012: 20-24).

Participation (3) refers to a broader inclusion of groups in the environmental policy process. This is essential for a couple of reasons, foremost to include the voices and preferences of less powerful groups since their opinions and preferences should be as valuable as the dominating groups from a democratic perspective. More powerful groups can dominate the process and promote their preferences and therefore undermine the opinions of the vulnerable groups. This broadening of participation therefore includes to ensure that the marginalized groups, including future generations, not only participate but that their perspective is as reflected in the process, as opposed to being a token for diversity. To include a broader range of groups in the planning also gain legitimacy to the environmental policy process since involvement in policies tends to gain them larger support. When citizens are engaged in the decision making process they are more likely to support the policy therefore creating legitimacy amongst a broader spectra of groups in society (Murphy 2012: 24).

The last dimension is *social cohesion* (4) which, although prominent within social sustainability, is variously defined mainly due to its broad approach. From the literature review the author gathers a couple of defining principles which include strengthening civic participation and community networks and to promote tolerance, solidarity and integration. The association to environmental imperatives is how the two policy areas, social and environmental, can reinforce positive and negative aspects of the other. For example infrastructure planned in the right way can both reduce emissions and improve accessibility which strengthens a community. Moreover, community groups can be a base for local environmental mitigation and adaptation strategies by developing community cleanups, car-sharing, heat plans, responses to flooding and so on. Nevertheless, the negative effects of environmental issues can also spur conflict as resources such as are scarce. Policy commitments should then encourage planning which, through infrastructure and social activities, promote integration and environmental focus. There should also be a focus on mitigating environmental conditions that spur conflict (Murphy 2012: 24-25).

Together the four dimensions and the suggested policy commitments shape a framework which can examine and evaluate an organization's understanding of sustainable development and its social and ecological pillar. The framework below is partly modified to fit a local context and the original framework can be found in chapter 8 Appendix.

Table 4. A social pillar of sustainable development (Murphy 2020: 21).

Organizing Dimension	**Policy Area**	**Policy May Be Analyzed For:**
Equity	Climate change and the development needs of global southern countries	Commitment to knowledge transfers to global southern countries regarding adaptation and mitigation
	Vulnerable groups and the effects of climate change and environmental degradation	Commitment to assist vulnerable groups in adapting to the effects of climate change and environmental degradation
	Vulnerable groups and fiscal measures	Commitment to protect vulnerable groups from fiscal measures designed to mitigate climate change and environmental degradation
	Protecting future generations by reducing consumption levels	Commitment to protect future generations by reducing consumption rather than relying solely on market/technological solutions
Awareness for sustainability	ESD and environmental awareness programs and campaigns	Commitment to designing and implementing educational programs for SD through the formal and informal education sectors
	Content of ESD Programs and campaigns	The level to which these programs embrace a challenge to the traditional growth paradigm including nonmaterial conceptions of happiness
Participation	Broadening the participative base of environmental planning processes	The level to which the views and preferences of weaker groups including future generations are reflected in environmental planning processes
Social cohesion	Promoting social cohesion and environmental objectives simultaneously	Commitment to infrastructural planning which promotes social integration and environmental sustainability simultaneously
		Commitment to promoting social activities aimed at environmental goals
		Commitment to developing “transition towns” or initiatives of that type

2.2 Understanding social sustainability and social equity

In 1987, the Brundtland commission's report Our Common Future was published, suggesting a definition on sustainable development which reads that "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Moreover, the report claimed that sustainable development includes an ecologic, economic and social sustainable development (Drilling 2013: 103-104). Social sustainability is a popular and well-used term however it is not clearly defined. By using literature reviews on the concept this sub-chapter aims to deepen the understanding of social sustainability and its dimensions.

de Fine Licht & Folland (2019: 22-24, 32) agrees that there is no consensus on the definition of social sustainability and approaches the concept from a theoretical and philosophical perspective in their discussion on the purposes of defining social sustainability. The first purpose of a definition is a practical one since the aim of social sustainability is to create good and fair processes and cities. The second purpose is both practical and theoretical since the definition needs to be useful for both practitioners and researchers since their work is integrated and overlapping. Additionally, the authors bring up a common critique regarding defining social sustainability, namely that on the hand one is an all comprehensive definition too broad and general to be productive whilst on the other hand a too precise definition not productive either since social sustainability should be able to be applied in a variety of contexts. These introductory arguments on social sustainability can be guiding and helpful as we keep exploring the concept.

In their article Shirazi and Keivani (2019: 448-451) explore the micro-level of neighborhoods as they develop a conceptual framework for measuring social sustainability on neighborhood level. This includes a literature review where social sustainability is linked to concepts such as "equity, democracy and social engagement, social inclusion and social mix, social interaction, sense of place, safety and security, and quality of the built environment and dwelling" (Ibid., 451). Accordingly is social sustainability a both physical and non-physical concept where the physical is represented by the quality of the built environment and dwellings, and quality of life whilst the more non-physical is represented by equity, sense of community, and social interaction. These 'hard' and 'soft' infrastructures are dependent on each other to gain social sustainability.

Dempsey et al. (2011) also aim to define urban social sustainability on a neighborhood level. The authors agree with Shirazi and Keivani (2019) in defining social sustainability by both physical and non-physical factors such as accessibility, attractive public realm, and local environmental quality and amenity (physical) and social justice, social cohesion, and participation and local

democracy (non- physical) but Dempsey et al. (2011) discusses this further based on Bramley and Power (2009) who suggest that social sustainability is a product of social equity and sustainability of community. Dempsey et al. (2011) argue that accessibility and a non-exclusionary environment are important dimensions of social equity and an equal urban context should be free from discriminating practices hindering citizens from participation as well as providing good living environments and access to public services, (social) infrastructure, recreation and culture. Sustainability of community is related to concepts of social capital and social cohesion and includes social interaction between community members, both formal and informal local collective institutions, levels of trust, a sense of pride and identification with the community and the relative stability of the community. By including the dimensions of sustainability of community into social sustainability a territorial aspect is highlighted and therefore social sustainability is related to a physical setting. To summarize, the authors argue that social equity is a fundamental value but to only focus on the distributive notion which social equity provides would make the concept of social sustainability incomplete. It needs to be complemented with sustainability of community as this dimension focuses on a healthy and functioning society.

Following a review of academic literature and policy, Bramley and Power (2009) also suggest that social sustainability consists of the two dimensions social equity and sustainability of community. The first dimension, social equity concerns access to services and equal opportunity which are both issues with close ties to policy and politics. The rather clear-cut concept stems from social justice and equality whilst the second dimension, sustainability of community, centers around more abstract phenomena such as a sense of community and social capital. Similar to Dempsey et al. (2011), Bramley and Power (2009) define sustainability of community by social interaction and networks, participation in the community activities, pride and sense of place, residential stability, and security. In practice this is exemplified by the fact that pride and sense of place often leads to more local contributions to an area where continued development and the increased activity in the neighborhood results in an environmental benefit since travel is reduced and an equity benefit since access is improved. In the same way can high turnover make an area unstable during a time period as the sense of community is decreased.

Lastly, as social equity is argued to play an important role within social sustainability Susan Fainsten's theory on the just city is included. The point of departure is that social equity is deficient since local public policy is evaluated from the perspective of economic growth rather than social impact (Fainstein 2010: 1-2). The theory evaluates equity in local public policy focusing on the principles of democracy, diversity and equity in urban planning (Ibid., 23) and the author argues that with these principles as a foundation a just city is "a city in which public investment and regulation would produce equitable outcomes rather than support those already well off" (Ibid., 3). The author recognizes the importance and potential of democracy in urban planning but with democracy there is a substantial risk that marginalized groups in society continue to be marginalized since more economically and institutionally resourceful groups can

define the agenda and represent their interests. Thus even when marginalized groups lack power in society at large they would lack power in the democratic process. Equal opportunity is required for democracy to work in a just way (Ibid., 29-30, 66). Diversity is an important concept within urban planning, closely linked with issues of segregation and gentrification. Fainstein emphasizes that diversity should be reflected in both the physical environment and in social relations. More than 'accepting' other, planning based on diversity should be reflected in the social composition of places (Ibid., 67). The aim of diversity should not be to make a city more attractive as an economic tool but instead equally livable to all its citizens (Ibid., 70-71). Lastly, the author distinguishes between equality and equity arguing that a policy based on equality is too complex and a non-realistic goal and not appropriate for evaluation. Equity on the other hand is not based on the idea that policy treats everyone the same but rather that policy sees the marginalized. Fainstein's way of evaluating public policy from an equity perspective would then be to ask who benefits from a policy and to what extent (Ibid., 35-36)

3 Method and material

In chapter three of the thesis method and material is described. Sub-chapter 3.1 lays out the foundation for the method of qualitative content analysis. Analytical tools and concept are presented and discussed as well as challenges of using qualitative content analysis. In the next sub-chapter, 3.2, the material and data collection is outlined motivating the choice of material and describing the data collection.

3.1 Qualitative content analysis

Qualitative content analysis, also referred to as textual analysis, is a close reading of a text, both its parts and its entirety, in relation to its context. The aim of this method is to analyze the text beyond what is on the surface and research the more abstract concepts such as meaning and ideas in the text (Esaiasson et al. 2017: 211-212). The method is advantageous when researching power since communication and language is an important tool within the political sphere. However, understanding the context of the communication is just as important since the sender and the receiver of the message can interpret it in different ways and the researcher needs to gain an understanding for how the communication can be interpreted by both senders and receivers. Therefore, qualitative content analysis requires a careful and systematic working method to avoid improper interpretations (Boréus & Bergström 2012: 18-20; Esaiasson et al. 2017: 330).

In this thesis, qualitative content analysis would be used to analyze policy to identify social sustainability. Since there is no critical analysis of the policy text itself the content analysis conducted is more of a systematic than a critical review. The systematic review aims at organizing and clarifying the content and the main argument of the text whilst the critical review aims, in addition to presenting the ideas of the text, to also expose the underlying meaning and message of the text.

Although social sustainability has been operationalized (see 2.1 A social sustainable development framework for policy analysis) for this thesis with the purpose of making it more concrete, the content analysis still needs analytical tools and concepts to identify the operationalized concept. This thesis will use an interpretative approach based on predefined categories and assisted by dimensions as an analytical tool. Starting with the interpretative approach, this analysis has the simple aim of properly understanding what a text is communicating in relation to the research question being asked to the text. However, although an interpretative approach seems straightforward there are three aspects to consider

for a successful use of interpretation: 1) the character of the question, 2) the chosen perspective of interpretation and 3) the distance between the text and the interpreting researcher. The first aspect addresses whether the message that the researcher is analyzing is manifested in the text or if it is more latent. Practically, the manifested message can be read and understood directly in the text whilst the latent requires the researcher to read between the lines. Since this thesis mainly has a descriptive aim only manifested message within the text will be considered. In the second part of the analysis where a more critical perspective is applied the focus is still on mainly manifested messages, in line with the principle of interpreting generously. A guiding principle within interpretative qualitative content analysis is that the interpretation should be generous. That means that the aim of the researcher is not to evaluate and interpret the text from one's own moral perspective but to interpret the core of the text and what the sender aims to communicate and achieve with the text. The second aspect concerns whose perspective the text is to be interpreted from. The message can be analyzed from the perspective of the sender, the receiver, or the perspective of a researcher aiming to elevate the content to a higher level of abstraction. In this case the message is analyzed from the researcher's perspective as the message is in a sense reconstructed when analyzed using the theoretical framework. The third and last aspect concerns how acquainted the researcher is with the area of research which actualizes the issue of the researcher's role in interpreting communication. If the area of research is far from one's own reality both in terms of time and culture the interpretation and the contextual understanding will be more difficult (Esaiasson et al. 2017: 226-228). The research area is not particularly unfamiliar but a discussion on the researcher's role is still required which is conducted later in this sub-chapter.

In this thesis the practical work of interpretive textual analysis is guided by predefined categories and dimensions. The predefined categories are based on the theoretical framework and its concepts of equity, awareness for sustainability, participation and social cohesion. When working with predefined categories, the majority of the work is done before the actual analysis since the categories need to fulfill certain technical and intellectual requirements. The technical requirements demand that the analytical tools are comprehensive, exhaustive and applicable. The intellectual requirements demand that the categories are innovative and productive so that they contribute to the research of the phenomenon (Esaiasson et al. 2017: 223). The dimensional analysis is a supplement to the predefined categories since the policy commitments within the categories can be of different ideological standpoints. Dimensions as an analytical tool are often used to analyze ideologies, namely how society should be organized from a governmental and economic perspective. The dimensions are chosen in relation to the research question and the empirical material. For this particular thesis this means that the dimensions relate to ideological standpoints concerning how climate change and environmental issues are mitigated. For example, the concept awareness for sustainability has a policy commitment which examines to what extent environmental awareness programs challenge traditional growth paradigms. This is preferably interpreted through dimensions where the dimension sustainable

consumption is represented by two opposites, on the hand challenging traditional growth paradigms and on the other hand promoting traditional growth paradigms.

Lastly follows a discussion on challenges when using interpretative methods. As with all research, *validity* is central, and especially from a constructivist perspective. Validity concerns whether the research question is actually measured using the intended method and is therefore the concordance between the theoretical and the operational definition. In this thesis much focus lies on the theoretical definitions, namely social sustainability and social equity, and how they are constructed, understood and implemented in research and policy. Additionally, this thesis also contributes to the theoretical definition of social sustainability. To avoid researcher bias the preparation and implementation is supported by the work of previous academic literature and the overall research question and theoretical framework is frequently revisited (Boréus & Bergström 2012: 41-42, Esaiasson et al. 2017: 222). Along with validity comes the concept of *reliability*, which asks the question whether the chosen method and theory is proper for interpreting the content. In this study the interpretation is supported by predefined categories and dimensions which, as stated above, should be comprehensive, exhaustive and applicable. However, even though the categories fulfill these requirements, if the theoretical and methodological framework, and reality do not correspond can modification be needed when analyzing the empirical material (Esaiasson et al. 2017: 224, 228). In this study, the theoretical framework has been modified to correspond with the local conditions to support the overall research questions and core of the theory. This also concerns intersubjectivity, which means that other researcher should be able to replicate the study and get the same results (Boréus & Bergström 2012: 42-42). It is achieved in this thesis by motivating the choice of theory as well as choice of empirical material and being transparent along the process.

3.2 Material and data collection

The material and the data collection play an important role in the study since that data and the processing of it constitutes the majority of the thesis. The processes of data collections and data processing should be planned and systematic, otherwise the study can face the risk overflowing with data creating an unbearable workload. It is productive to clarify the focus and range of the material which in this thesis is on the ideas of sustainable development and social sustainability and equity within official documents produced by the city of Malmö (Esaiasson et al. 2017: 226). However, the researcher also needs to be open for both the opportunities and the difficulties that arise whilst collecting and analyzing the material. As discussed in sub-chapter 3.1, when working with predefined categories the researcher still needs to be open to unexpected findings and the same goes for the data collection in this thesis.

The focus of the study is local planning, steering and reporting documents which in different ways concern social and ecological sustainable development

and as described in sub-chapter 1.1 the aim of the thesis is to analyze the long-term development of understanding of the sustainable developments and its pillars. It is therefore motivated to use reoccurring planning and policy documents to obtain a type of longitudinal data of the concepts. Three important reoccurring policy documents used in this study are the yearly sustainability reports, the environmental reports as well as the less frequent strategic land-use plans. The material in focus for the analysis are municipal official documents but additional data can be required for a contextual understanding.

4 Analysis of the social and ecological pillar

This chapter covers the first part of the analysis using Murphy's framework to describe and understand how the social pillar has been addressed and understood in relation to ecological sustainability. The chapter is thematically structured around the four dimensions of Murphy's dimensional framework and analyzes a selection of planning and policy documents from the last just over 20 years, 1997 to 2020. The turn of the millennia symbolizes a turn in the development of the city of Malmö as the municipality transforms from industrial city to a knowledge city. Moreover, during the 1990's the concept of sustainable development is adapted by cities and integrated into policy. Since this is a result of a globally more intensified debate on environmental issues and climate change, the adaptation by cities often has a predominant focus on the ecological pillar (Drilling 2013: 105). In policy in Malmö this is noticed by an increased focus on environmental issues and in the city of Malmö's strategic land-use plan (*Översiktsplan*) from 1990 environmental issues are raised and described as a future severe challenge and that the physical planning should be guided by ecological values, more precisely by curbing environmental degradation and managing natural resources (Malmö stadsbyggnadskontor 1990: 8-9). There is also a focus on social issues and solutions throughout the entire strategic land-use plan but neither the ecological or social is termed sustainable development and there is no clear interlinkage between the two political areas (Ibid.). Instead the publication of *Malmös Agenda 21: Avstamp för en god miljö och en hållbar utveckling* (Miljöförvaltningen 1997) (henceforward named the Malmö Agenda 21) is the starting point of the sustainable development work in Malmö and this is followed by just over a decade of planning and policy documents mainly focusing on the ecological pillar. Entering the second decade (2010-2020), Malmö's expanding amount of policy focusing on sustainable development in whole is a sign of the increasing interest and focus on sustainability in the municipality but also globally of course. During this decade the environmental programs developed during 2000-2010 are supplemented with three plans of action and from 2015 and onwards the municipality of Malmö publishes yearly sustainable development reports and yearly environmental reports.

In this chapter each sub-chapter begins with a brief description of the theoretical dimension followed by an chronological analysis of the planning and policy documents and ends with a summary. As stated in 3.2 the selected documents are reoccurring ones to achieve a longitudinal approach and also single

documents focusing entirely on sustainable development. The reoccurring documents analyzed are sustainable development reports[1] (year 2015, 2016, 2019), environmental reports[2] (2015, 2016, 2018), strategic land-use plans[3] (2000, 2005, 2014, 2018), environmental programs[4] (2003-2008, 2009-2020) and its actions plans[5] (2011-2014, 2015-2018, 2019-2020). The non-reoccurring documents are Malmö's Agenda 21 (1997) and the sustainable urban mobility plan (2016). Not all documents are analyzed in each sub-chapter, either since the theoretical dimension was not represented in the document or the content was not relevant.

4.1 Equity

In this analysis the dimension of equity focus on adaption, mitigation and responsibility on both a global and local level with a concern for differentiating vulnerable groups. The issues investigated concerns weaker groups locally and globally, either or both because if their increased exposure to the negative effects of environmental issues or and their lack of recourses to respond. Further who is more responsible and who should take action is also discussed since this is unevenly dispersed.

In the first sustainable development document, the *Malmö Agenda 21*, future generations and vulnerable groups are emphasized in relation to the concept of equity. To provide a future where individuals have an equal opportunity to meet their needs is formulated as a goal of the Agenda 21-work. The global South is presented as the most vulnerable towards the effects of climate change whilst the global North bears the responsibility due to their high the levels of emission and consumption. The uneven contribution to environmental issues result in a clear recognition that the citizens of Malmö need to take responsibility for their emission and consumption of resources by lowering it (Miljöförvaltningen 1997: 57). In the Malmö's Agenda 21 the interpillar linkages between the ecological pillar and the social pillar is present but not especially developed. It is stated that emissions and environmental degradation is caused more by some groups on a global level, the global North, but there is no further elaboration on this, for example how income and emissions have a positive correlation also on local level. This relates to potential conflicts that could occur when it is not recognized that there are differences in emissions and consumption on local level as well, which could cause an unequal distribution of responsibility.

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[1] Hållbarhetsrapport
[2] Miljöredovisning
[3] Översiktsplan
[4] Miljöprogram
[5] Handlingsplan

Sustainable development does not play a central role within *the strategic land-use plan 2000*. The report states that a sustainable development is a development that ensures that current and future generations can have their needs met and this is achieved through a decreasing consumption of 'matter and energy' in the developed world (Malmö stadsbyggnadskontor 2001: 24). Although sustainability is acknowledged here it is mainly related to the ecological pillar throughout the report and dimensions of social sustainability in relation to ecological sustainability are not present. However, in the *strategic land-use plan 2005* the concept of equity is given attention, both on global and local level, focusing on resource use and land management. Public health is also brought up in terms of a city free from air and noise pollution (Malmö stad 2006: 9, 20-21, 40). There is a discussion on the potential goal conflicts of sustainable development policy which relates to the theoretical framework and the need for more interpillar linkage and awareness for goal conflicts. Potential goal conflicts are for example how to manage the land within the city since the parks and vegetation are an important part of the ecological and social pillar providing better air quality, enabling the citizens to meet and leisure in the green spaces, and promotes biodiversity, but at the same time is Malmö expanding and in need of more housing and therefore land to build it on (Ibid., 22). Housing is a fundamental part of the social pillar and there could be a potential land management conflict.

In the *environmental program 2003-2008* the equity dimension is noticed a global and inter-generational scale as Malmö participates in multiple national and international networks cooperating and sharing knowledge on climate change issues. The program also states that the industrialized part of the world is historically is responsible for climate change due to their high emissions of greenhouse gases. At the same time will the developing part of the world be most affected by the negative consequences of climate change. The fundament of the international cooperation is therefore that the industrialized countries should be frontrunners in mitigating and adapting to climate change and also share their knowledge with the developing world (Miljöförvaltningen 2003: 15-16, 63). This perspective is also applied on consumption when the report states that the industrialized part of the world uses more natural resources than is sustainable, mainly in relation to future generations. Current generations usage of natural resources hinders future generations usage of them and therefore hinders their freedom if action and capacity. To solve this current generations need to lower their use of finite natural resources and close the loop by recycling and reusing (Ibid. 57, 89). The perspective in the environmental program 2003-2008 is on a global level with a focus on responsibility

In the next *environmental program 2009-202*0 the there is an important addition when it is pointed out that environmental policy for all citizens of Malmö must acknowledge how socio-economic differences plays a part in the environmental work. Environmental issues such as green spaces, noise and air pollution, vary spatially in the city (Malmö stad 2009: 2). From an equity perspective the understanding that vulnerable groups are affected differently is a significant new understanding. This understanding is also reflected on a global level when Malmö stad introduces the driving forces of a sustainable urban

development where one is the ability to develop successful examples of adaptation and knowledge which then can be transferred to other parts of the world. This is exemplified with Malmö's leading position within sustainable housing as housing is defined as a global challenge (Ibid,. 5). Although there seems to be a more enhanced understanding for the importance of socio-economic differentiation on local level and how Malmö on a global level can contribute with knowledge transfers there are also areas absent of discussion such as the suggestion that the energy consumption should be lowered by 20 percent per person by 2020 and by another 20 percent by 2030 as well as a lowering by greenhouse gas emission with 40% compared to the levels year 1990 (Ibid., 7). This could risk fiscal strains on vulnerable groups since lower income-groups, although emitting less overall, are more dependent on fossil fuels and often spend a higher percentage of their income on domestic energy. They therefore have a more difficult time transitioning to other energy sources, for example by buying an electric car or energy retrofitting their homes (Murphy 2012: 22). However the environmental program states that the energy transition will be realized by making renewable energy and a low-carbon lifestyle more available instead of making fossil fuels less available by for example a tax which would cause financial strains on more vulnerable groups. Another aspect of equity is the expressed desire that the citizens of Malmö should aspire to lower their consumption levels of material goods and instead consuming sustainable goods and services. However, this should not affect the quality of life for the citizens since it will be easy to make the right choice and the consumption of goods is smart and guided by quality. Also at the end of the life cycle of goods shall the citizens easily sort and recycle their waste (Malmö stad 2009: 5, 12). Once again consumption is characterized by a challenge of the traditional growth paradigm.

For the environmental program 2009-2020 three *action plans* are develop, 2011-2014, 2015-2018, 2019-2020. The perspective of equity, the policy areas as well as their commitments in the action plans are similar to the environmental program. For example regarding energy policies where it is stated that renewable energy should be stimulated and houses energy retrofitted (Malmö stad 2011: 8-11; Miljöförvaltningen n.da: 6; Malmö stad n.da: 10-12). However, there is more emphasis on different types of consumption both on local and global level and a new recognition of vulnerable groups. Starting with consumption it is highlighted that the consumption levels need to be lowered and that municipal procurement should consider ecological and social aspects, both current and future. The social considerations concern for example decent working conditions (Miljöförvaltningen n.da: 12; Malmö stad n.da: 16). This is further developed in the environmental reports, which are the result reports of the action plans. The environmental reports present more in detail the requirements the municipality puts on the producers as well as fines if the producers breach the contract on social and ecological sustainability (Miljöförvaltningen 2017: 30-31; Miljöförvaltningen 2019: 35). Another aspect of this is ongoing work with the citiy's Fairtrade certification where decent working conditions are emphasized as well (Malmö stad n.da: 23, 29). Moreover is the city of Malmö planning to be a pioneering city internationally displaying 'green growth' (Malmö stad 2011). The

commitments sends a message that the municipality recognizes and is working to curb social inequalities which can be caused by the municipal activities. Moving on to the recognition of vulnerable groups, the second and third action plan acknowledges resilience. Climate change will have effects on local level and the city of Malmö forecasts extreme weather such as extremely heavy rainfall and high temperatures putting vulnerable groups at risk. In action plans these groups are recognized to be children in kindergarten and elderly or other individuals in need of nursing homes, resulting in a policy commitment to strengthen the climate change resilience around these facilities (Miljöförvaltningen n.da: 20-21; Malmö stad n.da: 20). This is a clear differentiation of vulnerable groups affected by climate change which is important from an equity perspective.

The focus on social sustainability and interpillar linkages increases in the *strategic land-use plan 2014* compared to the 2005 one. For example the plan suggest that the increasing issue of cars in the city can be managed through fees. However the plan underlines that this would have to be investigated carefully to understand how this effects different groups in Malmö. Additionally should the surplus generated by fees be invested in public transport, walking and bicycling which are transport modes more often used by elderly, young, disabled and women (Malmö stad 2014: 39, 46). This is a clear recognition of how vulnerable groups can be affect by fiscal measures designed to mitigate climate change and environmental degradation. It is also a differentiation of how different groups use transport which can both mitigate climate change and improve integration. Next the plan elaborates on the future consequences of climate change such as rising sea levels, more rainfall and heatwaves. The report show both an awareness regarding how Malmö as a city will be affected and also, to some extent, how certain groups are affected (Ibid., 51). Lastly the plan states that Malmö will profile itself as a frontrunner within climate change mitigation which increases the attractiveness of the city and investments in environmental technology will attract new enterprises and create employment opportunities (Ibid., 17). This last planning strategy can be interpreted in different ways from an equity perspective. On the hand, it is positive that climate change mitigation, instead of putting more fiscal measures on vulnerable groups, might instead provide employment. On the other hand is the theoretical framework skeptical against using economic growth to mitigate climate change.

In 2015 Malmö releases their first *sustainable development report* and one of the central challenges presented is how to combine an improved welfare and health with a better climate. This is in itself an acknowledgement of social sustainability. Moreover should the sustainability work in Malmö be characterized by a long-term and global perspective (Malmö stad n.db: 4). Malmö has a rising population and increased needs for public services but at the same time aspiring to lower their environmental impact. Lower emissions demands changes in transport, lifestyles and energy production to mention a few and the transformation of these areas can create other benefits such as better health, housing and more efficient transport (Ibid., 10, 43). The housing situation in 2015 is challenging in Malmö. The city has seen a rising structural homelessness from 2009 and onwards mainly due to the fact that some citizens do not have the financial means or an

employment matching the supply of housing. When discussing solutions of structural homelessness the ecological and social pillars are both brought up as quick solutions are needed but this could have negative environmental effects as quickly built housing often is more damaging to the environment. There needs to be a balance between the pillars but as the situation is critical and noticeable negative for socio-economically vulnerable groups the social needs should be prioritized (Ibid., 26, 34). The report continues on the housing situation and vulnerable groups as it discusses the aim of a fossil free Sweden and how there will be investments made in housing and retrofitting with a special focus on the Million program. The report argues that energy retrofits can generate health benefits for vulnerable groups such as the elders and children and also lower the energy costs for economically vulnerable groups (Ibid., 45, 47). An additional focus on vulnerable groups is recognized as the levels of air and noise pollution are differentiated by geographical area, socioeconomic status and type of housing (Ibid., 44)

The *sustainable development report 2016* is themed participation (Malmö stad n.dc). Participation and equity are closely related since participation can enable the aim of equity, namely to provide equal opportunity to all to meet their needs and fulfill their potential, but since the report covers participation it is mainly analyzed in sub-chapter 4.3.

The *environmental report 2016* recognizes the importance of cooperation and of sharing knowledge as the city hosted the international conference *Sustainable City Development* in during the year aiming to share knowledge to make it 'main stream' and utilized in many places and settings (Miljöförvaltningen 2017: 4). This is also reflected on a local level as the report includes the reoccurring aim that 'it should be easy to do the right thing in Malmö', namely it should be easy to live a sustainable lifestyle and make sustainable choices. It is also emphasized that the citizens of Malmö should make sustainable choices because their choices causes consequences globally (Ibid., 12, 29). This is in line the perspective of equity which values both an lowering of consumption and protecting vulnerable groups from additional fiscal measurements. By implementing 'it should be easy to do the right thing in Malmö' the city would facilitate a sustainable lifestyle. Lastly, the report states that the infrastructure needs to prioritize more walking, bicycling and public transport as opposed to cars, to make transport in Malmö more energy efficient. The report suggest that this for example could be done through fees for parking. As it in the *Sustainable urban mobility plan 2016* is reported that citizens with higher socioeconomic status travel more overall and more by car (Malmö stad 2016: 19) this can seem reasonable and that it would not cause financial strains of vulnerable groups. The Sustainable urban mobility plan also reports that some groups, the young, the elder and the disabled are especially vulnerable to the negative effects of traffic such as air and noise pollution but also their possibilities to move safe in the city (Malmö stad 2016: 19). Beyond that is the plan's content not relevant for this analysis. The same goes for the strategic land-use plan 2018 as it is not providing any new equity perspectives relevant for the analysis but instead confirms much of what has been stated in previous planning and policy,

for example Malmö's continued international cooperation on environmental issues and positioning as a front-runner globally (Malmö stad 2018: 22).

Lastly, the *sustainable development report 2019* has a new disposition structured around Agenda 2030-goals and the seventeen global goals[6]. The report utilizes the Agenda 2030 to map and analyze the challenges of Malmö. The Agenda 2030 and its seventeen global goals was adopted by the United nations in 2015 and the city of Malmö has committed to developing a local Agenda 2030 at 2020 the latest. One of the central challenges is still how to combine an improved welfare and health with a better climate and environment (Malmö stad n.de: 3, 9-10). The seventh goal, sustainable energy for all, concern how the city will meet the current and future needs and challenges of ending poverty, mitigating climate change and creating an including growth. A similar goal is goal nine, sustainable industry, innovation and infrastructure. Both goals are attentive to the energy transformation to renewable energy sources and electric power which can cause a lack of capacity and effect in the power grid resulting in fewer new enterprises and employment. From an equity perspective this could cause financial loss for vulnerable groups and the potential goal conflict between climate change adaption and mitigation on the one hand, and social sustainability on the other hand is pointed out (Ibid., 47, 54-55). The twelfth goal, sustainable consumption and production, is not focusing on lowering of consumption levels. Instead is recycling, ecological food and environmental labeling the main argument of the chapter (Ibid., 70-73). This is a slight change from earlier planning and policy where the lowering of consumption levels is recognized. Lastly, in goal seventeen, partnership for the goals, it reads that Malmö is a part of multiple global partnerships with both developed and developing countries to cooperate on environmental issues and climate change. On a local plane it is essential to develop a cohesion between the goals and find synergies as opposed to treating them as separate (Ibid. 94-95).

To summarize, equity is a broad dimension covering many issues and the trend in this analysis is that more concepts of equity are integrated as time passes. Starting with the concept of vulnerable groups, the focus was in the beginning on a global level but as time passed vulnerable groups on a local level where also acknowledged. For example in 2010-2020 the city recognizes local groups vulnerable to the effects of climate change and local groups vulnerable to fiscal measures caused by environmental adaption and mitigation. Around 2015 the city also start formulate a more fundamental challenge, namely how to provide the welfare to the city without causing resource depletion and contributing to climate

[6] The seventeen global goals are: no poverty, zero hunger, good health and well-being, quality education, gender equality, clean water and sanitation, affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, climate action, life below water, life on land, peace, justice and strong institutions, partnerships for the goals.

change. A practical example is the goal conflict of providing of providing quick housing from the sustainable development report 2015. Lastly, two notes on the fact that Malmö takes on an active role in sharing knowledge and cooperating globally and the city progressed in their perspectives on a more sustainable consumption, to some extent challenging traditional growth paradigms. Many concepts of the dimensions of equity are acknowledged by the city and there is progress in their perspectives.

4.2 Awareness for sustainability

The policy concept of awareness for sustainability suggest that awareness and education are tools for changing citizen's practices and attitudes on sustainable lifestyles and consumption. Education is one of the most important policy goals within social sustainability and by increased knowledge and understanding comes engagement which often generates support and creates more legitimacy for environmental policies. Planning and policy is analyzed for educational efforts and whether they challenge traditional economic growth paradigms. The inclusion of all citizens is also explored.

Beginning with the *Malmö Agenda 21* from 1997 the document states that a part of the Agenda 21-work is to inform and inspire the citizens for example by indicators and yearly reports on environment, public health and welfare in the city as well as visions of how nature becomes the classroom providing children with an understanding and respect for the cycles in nature (Miljöförvaltningen 1997: 4, 9). Applying a dimensional analysis on awareness for sustainability and equity, Malmö stad advocates for an active lowering of emissions and consumption levels and the individual responsibility. The attitude is thus closer to challenging traditional growth paradigms than promoting traditional growth paradigms and believing that the market will provide solutions (Miljöförvaltningen 1997).

A fundamental part of Malmö's identity is the knowledge city and this is linked to the environment in the *environmental program 2003-2008* where information and education is one of the focus areas. It is stated that knowledge transfer between generations is a prerequisite for a sustainable development and this needs to be combined with insights on social issues and the possibilities to create a more equal society. The strategies and possibilities presented in the program show an understanding for potential in awareness and education. With the new university and information activities on both a central plane and locally in the city districts the environmental program assesses that Malmö has good opportunities to engage citizens and inspire to action. The activities include a center for urban ecology supported by the university, exhibits and environmental programs in the city districts libraries and an environmental theme on the yearly city festival. As well as activities the program states that part of the strategies for sustainable development includes an inter-generational perspective as well as diversity where knowledge and experience from all ethnicities are a strength in the sustainability work and young with non-Swedish backgrounds are especially

important. Lastly the program reason about awareness for sustainability and concludes that knowledge can change attitudes but attitudes can also be changed by calls for action and good examples should be highlighted (Miljöförvaltningen 2003: 70-71). The environmental program 2003-2008 focuses a lot on awareness for sustainability and especially on using awareness as a tool for reaching goals.

The *strategic land-use plans 2000* (Malmö stadsbyggnadskontor 2001) and *2005* (Malmö stad 2006) do not provide any relevant perspectives on awareness for sustainability and neither does the *environmental program 2009-2020* which can be somewhat understandable since the document is an overview and followed by the more concrete action plans (Malmö stad 2009). In all *actions plans* awareness for sustainability and enhancing the engagement amongst citizens is emphasized as fundamental in reaching the sustainability goals. Participation and awareness for sustainability are closely linked and in the second and third action plan it is accentuated that the learning and knowledge are powerful tools for change and the citizens need to be both educated and engaged. Additionally should the city work to facilitate both learning and participation. It is also clear that the knowledge that the citizens should acquire is to understand the consequences of their actions and see the relationship between local action and global development. The focus areas for the citizens are circular- and sharing economy, recycling, harmful chemicals, and the effects on climate change stemming from food and textiles (Malmö stad 2011; Miljöförvaltningen n.da: 10, 29; Malmö stad n.da: 22-24, 26) therefore focusing a lot on lifestyle and the individual emissions. The awareness and education of children and the young especially noted in the actions plans. They are featured as an important group to reach and support as co-creators of sustainable development (Malmö stad 2011; Miljöförvaltningen n.da: 22; Malmö stad n.da: 22-24). By bringing attention to nature, environmental issues and climate change in school the future generation will have a greater awareness for sustainability from a young age which can be understood as a way of caring for future generations and possibly including their views.

The reoccurring strategy within the sustainable development and environmental policies in Malmö, that it should be easy to do the right thing, is acknowledged in the *environmental report 2016* from the perspective that this is highly dependent on sharing knowledge and information. If ones does not have access to the correct information then one cannot make sustainable choices either (Miljöförvaltningen 2017: 4-5). The reports also states that more indicators and data are needed on the emissions of the citizens of Malmö, especially with a focus on emissions from consumption instead of production or geographically based to help the citizens acquire perspective on their emissions (Ibid. 11).

From 2015 and onwards the city of Malmö releases a yearly *sustainability report* covering all three pillars of sustainable development. In a sustainable Malmö the citizens feel involved and that they have equal opportunities as well as prerequisites for good living conditions, trust in others and good health. The surroundings should be healthy and accessible to move both within and out of the city. The report and the sustainability work in Malmö aim to tie together all three pillars of sustainable development and see where they cooperate and reinforce

each other and where goal conflict may emerge (Malmö stad n.db: 4). The 2016 sustainable development report has the theme *Participation* which is a concept closely linked to awareness for sustainability since it often is a prerequisite for participation. This is also stated in the report as it uses a model of a ladder of participation and capacity to action where the lowest level is information (Malmö stad n.dc: 16). Information and awareness is discussed from the perspective of digitalization and it is established that there are noticeable differences between socioeconomic groups and their ability to utilize the possibilities that digitalization bring and to understand the content. The report states that participation is dependent on the citizens knowledge capacity to action and digitalization can open up for possibilities to make information more available for weaker groups through for example information on different languages, more easy to read, listening to the information, or sign language. Moreover should the municipality be available to provide information during more hours of the day. Lastly, the report recognizes knowledge and learning from and between citizens. Based on the recommendations of a commissions of social development in Malmö *knowledge alliances* are created which take advantage of the diverse knowledge in the city and appreciates different experiences and knowledge with both a qualitative and quantitative character. This knowledge alliance is a tool explicitly developed to create social sustainability (Ibid., 28-34). The report has a reasoning perspective on awareness for sustainability recognizing both the challenges and the fundamentals of having an informed population. Although the report does not focus explicitly on awareness on environmental issues, social sustainability is present in the discussions and perspectives of both bottom-up, diversity and inclusion of weaker groups are present.

The *sustainable development report 2019* states, in relation to goal thirteen climate action, that education, innovation and compliance with the policy obligation of climate change and the environment, can ensure protection of the planet. Goal thirteen highlights how a certain type of awareness for sustainability as it argues for more knowledge about consumption based emissions (as opposed to geographical or production based emissions). By informing the citizens more about consumption based emissions in general and in Malmö the citizens can obtain a better understanding of the global character of climate change and the municipality can better design effective policy. Goal thirteen argues for a lowering of consumption to mitigate climate change as opposed to the more hesitant goal twelve (see sub-chapter 4.1 Equity) (Malmö stad n.de: 74-77).

To conclude, Malmö characterizes itself as a ‘knowledge city’ and to have an informed population has been prioritized during the last 20 years. The environmental program 2003-2008 states that information and education are prerequisites for a sustainable development and as time passes education and learning is emphasized. In the actions plans, during 2010-2000, the learning is more specified focusing on circular economy, recycling and the effects of consumption of textiles, food and in general. The young and children are also acknowledged as the city hopes that future generations will be more informed than the former. Several reports suggest using consumption based instead of production based indicators of emissions to help the citizens understand their

global responsibility and how their actions affect the rest of the world. The sustainable report 2016 acknowledges that groups are differently informed and to participate all should have access to information. The city mapped awareness in different groups to enable everyone to be informed and participate. Awareness for sustainability has been prioritized and during the 1997-2020 the perspectives on information and learning has developed in a direction focusing on informing citizens to understand their actions and enable them to make better choices. The general approach to consumption has to some extend challenged traditional growth paradigms.

4.3 Participation

The dimension of participation relates to the awareness for sustainability and equity since it emphasizes that a broader range of citizens should participate in the sustainable development planning and policy processes. A certain focus lies on the inclusion of weaker groups and future generations. When citizens are engaged in the decision making process they are more likely to support the policy therefore creating legitimacy amongst a broader spectra of groups in society.

The *Malmö Agenda 21* highlights participation when focusing on the launch of an active Agenda 21-work in Malmö by emphasizing that all of society must participate in the process, both in planning but also executing. In planning the top-down perspective must be transformed into a bottom-up perspective where citizens, schools, business, companies, organizations, institutions and more, take an active part and the city shall facilitate this participation (Miljöförvaltningen 1997: 3-4, 9-10). The aim of participation is a broad range of actors, which it can be argued, automatically includes weaker groups and future generations but as the research suggests the views and preferences of weaker groups are usually not as reflected in the planning process and therefore is special consideration and facilitation of their participation needed. In the *environmental program 2003-2008* participation is also acknowledged as one of the five chapters in this report is dedicated to local participation and dialogue with the citizens of Malmö. The report highlights the synergies that an active dialogue and participation around environmental issues can provide, namely that the local democracy and integration between groups can improve. The participatory work is also exemplified by engagement with certain groups such as the elderly and young as well as an expressed focus on integration for example by making the dialogue process available on multiple languages (Miljöförvaltningen 2003: 63, 65, 69). In contrast to the following *strategic land-use plans for 2000 and 2005*, the concept of participation is well-developed in the Malmö Agenda 21 and the environmental program 2003-2008. In the land-use plans for 2000 and 2005 it is stated that participation is a premise for sustainable development. The citizens of Malmö should feel involved in the changes and there are different perspectives and a diversity of voices needed to bring this process forward. The plans have no further

statement regarding whose perspective and voices (Malmö stadsbyggnadskontor 2001; Malmö stad 2006: 21, 40).

Neither the *environmental program 2009-2020* (Malmö stad 2009) nor its *actions plans* (Malmö stad 2011; Miljöförvaltningen n.d; Malmö stad n.da) report any new perspectives on participation. It is acknowledged that the participation should be wide and active, and that initiatives are welcomed from all citizens of Malmö. The citizens of Malmö should have greater possibilities to influence their surroundings and quality of life aiming at more sustainable lifestyles which will be achieved through an active dialogue and involvement with the municipality and business but also through greater facilitation of participation.

However, in the *2014 strategic land-use plan* one of the three priorities of the report is the city as a cultural and democratic arena. What differs this statement from previous recognitions of participation is that the concept is presented as more complex and with more interpillar linkages. The positive relation between health and participation recognized as well how safe and equal spaces for meeting in the city allows for more democracy and participation. Further are different groups distinguished when it is stated that men and women shall have the same power and possibility to participate and shape society as well as their own lives. Lastly are the meetings between citizens as participants in planning processes recognized as a synergy which can spur social cohesion and integration (Malmö stad 2014: 15, 22-23, 39-40). This shows that a more nuanced and analyzing approach to the pillars of sustainable development can provide more interpillar linkage.

The *sustainability report of 2016* has participation as its main theme which in itself is an important recognition of the concept and the report is presenting a more complex and productive view on participation. The main conclusion from the report is that there are differences in participation depending on socioeconomic status, age, gender and between groups with Swedish or non-Swedish background. To achieve a sustainable development the participation of weaker groups need to increase. The report suggest strategies to change this uneven participation with the first one being to increase co-creation in the dialogue with citizens. This includes broadening the participation to obtain experiences and knowledge from all citizens and let this be a part of the planning process. It is especially important to make sure that the voices of weaker groups are heard and this can require changing the modes of participation. To increase the co-creation and broaden participation leads to more trust between groups which is needed for a sustainable development. Secondly, it is important to ensure that all citizens have the capacity needed to participate which includes for example assuring that the citizens easily can obtain correct information in their language and at comfortable hours as well as knowing what and how they can participate in the municipal processes. Third, the report recognizes that many current issues in society often are cross-sectional and touching upon many policy areas at the same time. Therefore can a broadened cooperation and participation where actors learn about others perspective, experiences and ideas lead to more trust, understanding and new solutions. An example of the broadened cooperation is how the municipality is acknowledging other political organizations beyond political

parties. Today more people engage in political organization which are more informal networks that engage in one or few political issues and the municipality should have a dialogue with these informal networks (Malmö stad n.dc: 32-36).

The *Sustainable urban mobility plan 2016* states that Malmö has a proportionately young demographic therefore argues that the participation and influence of children and the young. Their perspective should be considered as a resource in planning and adapted forms of participation should be developed to include that. The gender perspective is also acknowledged beyond the young, as men and women, girls and boys, should have the same opportunity to shape society and their own lives. These are efforts to broaden the participation focusing on certain groups and in addition to this the report also reasons about the democratic right of being able to participate (Malmö stad 2016: 20-22).

Lastly, in the *sustainable development report 2019* goal sixteen, peace, justice and strong institutions, underscores the importance of including everyone. In the report this is for instance represented by the voter turnout amongst the citizens of Malmö which is increasing. The voter turnout has increased the most in an area which had previously had the lowest turnout which is positive from a participatory project (Malmö stad n.de: 91-92). The report also emphasizes the generational- and humans rights perspective are important and there should be more focus on children and the young (Ibid., 11). Beyond that is participation not noticed in the report.

To summarize, participation has always been on the agenda, in the environmental program 2003-2008 the enablement of different groups is recognizes and the strategic land-use plans from the same time period states that participation is a prerequisite for a sustainable development. However, a substantial part of what is reported on participation do not develop it any further than the fact that participation should be active and broad. The sustainable development 2016 is themed participation and it recognizes the differences in participation depending on socioeconomic status, age, gender and between groups with Swedish or non-Swedish background. This is followed by strategies and policy recommendations to enable equal participation. The concept of participation has thus always been prioritized in sustainable development and environmental policy and there has been a progress in the efforts to broaden the participation.

4.4 Social cohesion

Social cohesion can be defined in a number of ways but the core of the concept lies in strengthening civic participation and community networks as well as to promote tolerance, solidarity and integration. Policy commitments should then encourage planning which, through infrastructure and social activities, promote integration and accessibility as well as environmental focus and this is also what planning and policy is analyzed for in this sub-chapter.

Social cohesion is not prominent within the *Malmö Agenda 21* (Miljöförvaltningen 1997) but in the *environmental program 2003-2008* it reads that the city has a new perspective of urban ecology concerning environmental issues and resource management where integration and participation is aimed at (Miljöförvaltningen 2003: 9). The reoccurring strategy of the dense and mixed-use city is present although not named yet. Instead it reads that the planning should aim for short distances (dense) and versatile and comprehensive development with access to all services (Ibid. 53).

In the *2005 strategic land-use plan* the idea of a dense and mixed-use city is expressed in relation to sustainable development as it is stated that the most important contribution the city can make to ecological sustainable development is to keep a concentrated city which offers the citizens versatility and accessibility. From an ecological perspective a dense and mixed-use city enables shorter distances and low carbon transport and from a social perspective it can mitigate segregation and inequality since the city becomes more integrated and citizens have an equivalent accessibility to services (Malmö stad 2006: 21-23).

Regarding the social cohesion all *action plans* assert the dense, green and mixed-use city is a sustainable city and this should always be prioritized in planning. Both new and existing green spaces should be developed with a focus on both social and environmental values, for example health, climate change adaptation and ecosystem services. Once again are children and learning brought up when it is stated in the first action plan that all children will be given the opportunity to have healthy, educational and inspiring green environments at school and kindergarten (Malmö stad 2011; Malmö stad n.da: 6-7). In the second action plan a perspective of equity and vulnerable groups are noticed in relation to the green and dense city when it is established that geographical areas suffering from low invested should be especially considered in developing the city and forums for exchange for experiences should be established to improve the process (Miljöförvaltningen n.da: 36). Lastly, once again is it established that the mobility in the city should be characterized by more bicycling, walking and public transport (Ibid., 16). These areas of transport will be improved resulting in reduced greenhouse gas emissions, air and noise pollution as well as improving accessibility which together promotes both an improved environment and social sustainability.

In the *strategic land-use plan 2014* a new perspective enters when the conclusions of the report reads that the transformation of Malmö has focused on urban development and environmental issue but now is the time for a new story of Malmö which emanate from all citizens of Malmö and their collective potential and knowledge as well as their social capital. To achieve this the city must come together and become one through more mobility and creating attractive destinations in all parts of the city as well as reassuring that everyone has the fundamental of work, school and housing. The priority for the city ahead is still a dense, mixed-use and green city (Malmö stad 2014: 6-7) with more space for walking, bicycling and public transport as opposed to car traffic. This both lowers emissions, air and noise pollution and makes the infrastructure more equal since elderly, young, disabled and women travel less by car and more by walking,

bicycling and public transport. Additionally should municipal services, green spaces, shops and recreation be available in all parts of the city to decrease the need for travel (Ibid., 19, 23, 39). Altogether this contributes to a city which can heal structurally and socially (Ibid., 19). However, the report notes that more air and noise pollution can arise in a more dense city and this is a reoccurring goal conflict for the city (Ibid., 69). The new perspective in the 2014 strategic land-use plan in an interesting development as the report suggest that the ecological pillar has received too much attention on behalf of the social pillar.

The *sustainable development report 2015* notes some projects where environmental and social benefits has been combined, for example via ReTuren where the citizens meet and can change books, clothing, furniture and more. This circular economy initiative can benefit social cohesion as it increases interaction and spontaneous meetings. It can also positively affect equity as economically vulnerable groups can receive or buy more affordable second hand-goods (Malmö stad n.db: 47). Further, the report discusses sustainable transport and provide an understanding for how the transport system and mobility can have social impact by promoting health, trust, safety, and equality whilst poor accessibility to transport and mobility can amplify segregation and isolation which can worsen trust and participation (Ibid., 49).

The *environmental report 2016* discusses a sustainable urban development focusing on housing. By developing varied housing types in the same area the city acquires a more mixed inhabitance and integration. Combined with solutions of a sharing economy with recycling, reparation and rent as well as social clauses in municipal procurement more sustainable neighborhoods can be developed including all three dimensions of sustainability. The strategy for a dense, green and mixed-use city is also developed as it reads that old industrial land can be used for new housing development and therefore avoids using green spaces (Miljöförvaltningen 2017: 16-17, 24). Beyond that the report is mainly discussing how electrified public transport can lower air and noise pollution as well as contributing to more attractive surroundings, that green spaces should be preserved and urban gardening promoted (Ibid. 19-20).

As mentioned before the *sustainable development report 2016* is themed participation. Social cohesion and participation covariates a lot and the report discusses how a low participation can cause more segregation and distrust and high and broad participation contributes to integration and trust between groups in society and towards institutions. An even participation contributes to social cohesion (Malmö stad n.dc: 15, 32-34) and the report is not analyzed further from the perspective of social cohesion.

In the *Sustainable urban mobility plan* from 2016 the accessible city for everyone is recognized. The report states that independent of your gender, sex, ability, or socioeconomic status, the experience of having access to one's city is a right. Additionally is the traffic planning aiming to become more equal based on the different transport habits and needs of men and women. The current city is mainly planned for cars which also is mostly used by men and causing environmental harm. The plan to shift to a more public transport, walking and bicycling, which is how women mostly travel, will have positive effects on both

the environment and social equality (Malmö stad 2016: 20-22). The focus of the city being for everyone is also noticed in the reoccurring strategy of the green, dense and mixed-use city is brought up in the plan with a reference to social sustainability. It reads that activities and functions should be added to the outskirts of the city as well and that streets and traffic instead of being barriers should gather which can heal the city (Ibid., 45). This reference to social sustainability focuses on how a more accessible city and where all parts of the city are functioning and prioritized is important for social cohesion through integration and strengthening of community. Moreover the plan mixes the perspective of health with lower emissions, safety, accessibility, and therefore providing more interpillar linkages. For example is the association between green spaces and both mental and physical health is brought up as well as the green spaces importance for social participation and interaction (Ibid., 24).

The *sustainability report 2017* will only be included briefly since it has a strong focus on its theme, young and children's mental health, and is not relevant for this analysis. However, an overall conclusion of the choice of this theme is that the social pillar was given a lot of attention. This is also true for the sustainability reports in general where social issues tend to be in focus.

The *environmental report of 2016 and 2018* have similar content on social cohesions and both reports list examples of urban gardening projects in Malmö and states that this contributes to both a sustainable city and city life in general. Through cooperation with the local university has workshops and coaching been offered to urban farmers so they can improve their gardening projects and also gain an income from it. The urban gardening projects listed are from all over the city suggesting that a range of citizens has the possibility to utilize it (Miljöförvaltningen 2017: 20; Miljöförvaltningen 2019: 22). The 2018 report also list examples of educational projects on the marine environment and the limestone quarry. Both school-children, university students and the public has participated learning more about geology, fossils and the marine environment as well as participating in cleaning the coastline from litter. These are examples of activities which both strengthen the social cohesion as well as preventing environmental issues (Ibid. 32). Lastly, the report highlights the a project called the *Fritidsbank* which is a library for sporting goods where the citizens can borrow sporting goods for free. All the goods are donated by citizens and therefore recycled (Ibid. 42). Another example combining social and ecological sustainability by using recycled goods and enabling all income groups to leisure activities.

The *strategic land-use plan 2018* is not providing any new equity perspectives relevant for the analysis but instead confirms much of what has been stated in previous planning and policy, such as the dense, mixed-use and green city and how changed transport can lower emissions, air and noise pollution, and increase equality (Malmö stad 2018: 14, 42).

Lastly, the *sustainable development report 2019* is structured around the Agenda 2030 and the seventeen global goals. Goal nine, sustainable industry, innovation and infrastructure, discusses the infrastructure and a reliable public transport and states that the current transport system is used in an unequal and ecologically unsustainable way. Men and women travel in different ways with

men traveling more by car and women use more public transport. Therefore an expansion and improvement of the public transport, walking and bicycling have positive effects on both the environment and gender equality (Malmö stad n.de: 57). The eleventh goal is sustainable cities and societies and mainly concerns Malmö's increasing population and how to meet the needs of the new citizens demand for housing and transport while not increasing the emissions (Malmö stad n.de: 65). The increasing population relates to goal 13, climate action where the report problematizes a dense city a this can be a risk with the increased extreme weather and rainfall that will occur with a heightened climate change. The report highlights this goal conflict between a dense city and climate change resilience and also the goal conflict between a dense city and the aim of more biodiversity. In goal 15, ecosystem and biodiversity, it is clearly stated that there is a goal conflict between the aim of a more dense city and the aim of more biodiversity. However, the city is kept dense to avoid exploiting the farm land around the city which also contributes with biodiversity. All this comes to show how complex the issue is (Ibid. 74-75, 79, 83-86).

To conclude, the aim of social cohesion is not explicitly named in the same way as awareness for sustainability and participation but through the strategy of the dense, mixed-use and green city as well as other initiatives social cohesion is present. First, the projects and initiaitves providing both environmental and social benefit increase during the years. Second, the dense, mixed-use and green city is also an example of a strategy which provides both environmental and social benefits and during the years progress and development of the strategy is noticed. For example is climate change resilience related to the strategy and also a discussion on transport and infrastructure from the perspective of which modes of transport emits, who uses what type of transport and what infrastructure is the city providing. And at the end of the researched time span a goal conflict between the dense and the green city is starting to arise and be mentioned more. How Malmö solves this goal conflict would be interesting to see from the perspective of this study.

5 Dimensions of social sustainability in Malmö

The first analysis investigated and established the progress and the trends of social sustainability within sustainable development and environmental policy but as the analysis in chapter four covers 20 years of planning and policy only one, Murphy (2012), theory and definition on social sustainability was used. To further enhance the analysis this chapter includes a more deepened discussion on social sustainability and the results of the analysis in chapter four. The following discussion uses the conceptual framework presented in sub-chapter 2.2 and is structured around the dimensions of social equity and sustainability of community which together make up social sustainability. Discussing the previous analysis with these two concepts establishes an understanding for which parts of social sustainability are enhanced in planning and policy.

5.1 Social equity

The first dimension of social sustainability, social equity, concerns distributive justice and equal opportunity. The concept is rather clear-cut and stems from social justice and equality. In practice it is often measured by accessibility for example to education and training, decent housing, public services, (social) infrastructure, green space, culture and recreation (Dempsey et al. 2011) and in this analysis the concept also reflects whether the planning and strategies are inclusive for all of Malmö and how vulnerable groups are viewed.

Accessibility is a core concept within social equity. The reoccurring strategy of a dense, mixed-use and green city can increase social equity since this creates a more accessible city, both as the dense city creates shorter distances and enables transport such as walking and bicycling and mixed-use city provides public services, recreation and job opportunities all over the city providing all citizens with access. The green city provide more green spaces in the city which is positive from an equity perspective as it often offers spaces of recreation, health and social activities. These are examples of psychical accessibility but the research in sub-chapter 2.2 emphasizes the non-psychical accessibility as well. One of the fundamental challenges for Malmö is how to finance a continued and improved welfare whilst at the same time not causing resource depletion and contributing to climate change. A functioning welfare system provides accessibility and equal opportunity, namely access and opportunity to education, health care, a job, public services and more. A practical example related to this is

the issue of the capacity of the power grid as the demand for electricity rises. The city prognoses that the capacity will not be enough and concludes that this could have negative effects on the job market as investment will decline without a stable power grid. Accessibility and equal opportunity is a dimension included in the sustainable development policy. A less fundamental but still noticeable aspect of accessibility reoccurring strategy 'it should be easy to do the right thing' which has an equitable and accessible tendency as it aims to facilitate a sustainable lifestyle. As social sustainability should provide a society where citizens are not hindered from participation the 'it should be easy to do the right thing' can be seen as including in the current political and cultural debate.

During the 20 years, vulnerable and weaker groups become more highlighted on a local level. In the beginning the focus is mainly on the global North and the global South division but the local perspective emerges as vulnerable and weaker groups are observed from a participatory perspective. As both Murphy (2012) and Fainstein (2010) argue, more resourceful groups can define the agenda and represent their interest and therefore must vulnerable or weaker groups be equally included in the democratic process. This is acknowledged by the city as participation is investigated. Groups participating less are recognized and measures are taken to include these marginalized groups (see 4.3 Participation). Another differentiation of groups is made by the city as they, to some extent, single out whose responsible for climate change and environmental degradation. As with vulnerable groups, the focus is mainly on a global level in the beginning but the local level is recognized as time passes. On a global level the uneven contribution to environmental issues is recognized and Malmö encourage its citizens to take responsibility as their actions negatively affect vulnerable groups globally. The acknowledgment of vulnerable groups on a local level is for example, as the reports and plans state, that more wealthy citizens emit more by traveling more in general and by car. It is also recognized that women, elderly, children and young, and disabled travel more by public transport, bicycling and walking. By enabling more of these modes of travel and aggravate traveling by car the city both distributes responsibility for emissions more equally as well as distributing the infrastructure more equally. The distribution of responsibility for emissions and climate change is also recognized as the city investigate how policy designed to mitigate climate change and environmental degradation affect different groups. Greenhouse gas emissions are positively correlated with wealth and if the city did not investigate the effects of mitigating policy a situation can arise where the ones that emit the least pays as much as the ones that emit the most.

To conclude, the dimensions of social equity, namely accessibility, distributive justice and equal opportunity, are present in planning and policy. The dimension is present by the focus sustainable development planning and policy not hindering equal opportunity and the focus redistributing the responsibility of environmental issues and climate change.

5.2 Sustainability of community

The second dimensions of social sustainability is sustainability of community. Social equity and distributional justice is a concept more easily conceptualized for policy and politics whilst sustainability of community is more abstract and concerns the healthy and functioning society. Sustainability of community consists of social interaction and networks, participation in collective groups and networks in the community, pride and sense of place, residential stability, and safety and security.

The reoccurring strategy of a dense, mixed-use an green city correspond with many parts of sustainable of community. The mixed-use and dense city provides public services, recreation and shops all over the city providing all citizens with access in their own neighborhoods and this enables pride and sense of place as your neighborhood offers all services and can be a destination for others, secures residential stability as the citizens have most of what they need at a short distance and the strategy can provide safety and security, and social interaction and networks as there is more activity in the area. The mixed-use city also includes more mixed housing types in the same area to improve sustainable urban development. This enables citizens to stay in the same area as their conditions change, provides integration and residential stability (Malmö stad n.da; Malmö stad 2018). Additionally, as the research suggest in sub-chapter 2.2 residential stability can lead to more social networks in the community and pride of the neighborhood as the residents invest more in their surroundings. These investments can for example be the initiatives to mitigate environmental issues and climate change that occur in the city and often provide social benefits as well which is in line with sustainability of community. The initiatives and actives include among other urban gardening, excursions and a sharing economy. Together these initiatives fulfill most dimensions of sustainability of community as citizens come together, meet new people, learn and recreate, and invest in their neighborhood.

The city's focus on participation is productive for sustainability of community as this directly gains participation in collective groups and networks as well as social interaction. When citizens engage in the local policy making process they are more likely to legitimatize the policy which could provide both a sense of pride and but also safety and security since they feel that they have the power to improve their surroundings. In the later reports a new wording returns several times, namely that the city must 'heal' (Malmö stad 2014; Malmö stad 2016; Malmö stad 2018). To improve both participation and sustainability of community in general is a way to 'heal'.

To conclude, most dimensions of sustainability of community are present in sustainable development planning and policy except safety and security which is difficult to deduce.

6 Conclusions

The aim of this thesis is to explore and understand social sustainability in general and in relation to ecological sustainability. Through policy analysis and discussion the gathered results show a trend of more integration between social sustainability and ecological sustainability and moreover that social sustainability has gained status in local governments. As stated earlier, the focus has been largely on the environmental pillar of sustainable development but as the case of Malmö clearly state, social sustainability is just as important and deserves more attention and resources. This is a positive progress but as the research show it can result in increased goal conflicts when more consideration for social sustainability is applied when designing planning and policy. However, in a long-term perspective it will hopefully lead to increased knowledge and skills on how to integrated all pillars of sustainability as this is a prerequisite for a sustainable development.

The results of this thesis also show that most parts of social sustainability are present in the concepts relation to ecological sustainability. This thesis has contributed to defining social sustainability in general by applying it on an empirical case and also exemplifying how the dimensions of social sustainability can be integrated with ecological sustainability. This provides both theoretical and practical knowledge on how to create a more incorporated sustainable development which decreases the risk for goal conflicts. Moreover has the thesis expanded Murphy's theoretical framework by applying it on a local level and providing indicators for local sustainable development and environmental policy. The overall results are positive since sustainable development is dependent on more integration of its pillars and on being one development with a clear direction.

For future research it would be relevant to investigate the goal conflicts more, for example the dense and the green city in this thesis, and how the city solves these and reasons. As former research showed (see 1 Introduction) the ecological pillar tended to 'win' the goal conflict but now, as the case of Malmö show, social sustainability is gaining importance the which would make it relevant to explore how local governments reason about this. A second recommendation would be to investigate the interaction, integration and goal conflict of the pillars of sustainability in smaller and non-urban communities such as towns and villages. Previous research often focus on larger cities and urban environments but sustainable development is highly dependent on the non-urban environments as these contribute to the mitigation of climate change and environmental issues.

Lastly, a reservation concerning the conclusions is that this thesis has researched one case. More cases are needed to confirm these results and this thesis can provide theoretical and empirical guidance in this.

7 References

7.1 Academic literature

Anguelovski I, Connolly JJT and Brand AL (2018). From landscapes of utopia to the margins of the green urban life: For whom is the new green city? City 22(3): 417–436.

Boréus, K., & Bergström, G. (2012). Textens mening och makt: metodbok i samhällsvetenskaplig text-och diskursanalys. Studentlitteratur.

Bramley, G., & Power, S. (2009). Urban form and social sustainability: the role of density and housing type. Environment and Planning B: Planning and Design, 36(1), 30-48.

Bulkeley, H., & Stripple, J. (2020). Climate Smart City: New Cultural Political Economies in the Making in Malmö, Sweden. New Political Economy, 1-14.

Dannestam, T. (2009). Stadspolitik i Malmö: Politikens meningsskapande och materialitet (No. 155). Lund University.

de Fine Licht, K., & Folland, A. (2019). Defining "Social Sustainability": Towards a Sustainable Solution to the Conceptual Confusion. Etikk i praksis-Nordic Journal of Applied Ethics, (2), 21-39.

Dempsey, N., Bramley, G., Power, S., & Brown, C. (2011). The social dimension of sustainable development: Defining urban social sustainability. Sustainable development, 19(5), 289-300.

Dooling, S. (2009). Ecological gentrification: A research agenda exploring justice in the city. International Journal of Urban and Regional Research, 33(3), 621-639.

Drilling, M. (2013). Planning sustainable cities: Why environmental policy needs social policy. In Environmental Policy is Social Policy–Social Policy is Environmental Policy (pp. 103-119). Springer, New York, NY.

Esaiasson, P., Gilljam, M., Oscarsson, H., Towns, A. E., & Wängnerud, L. (2017). Metodpraktikan: konsten att studera samhälle, individ och marknad (Femte upplagan). Wolters Kluwer.

Fainstein, S. S. (2010). The just city. Ithaca: Cornell University Press.

Garcia-Lamarca, M., Anguelovski, I., Cole, H., Connolly, J. J., Argüelles, L., Baró, F., Loveless, S., Pérez del Pulgar Frowein, C. & Shokry, G. (2019). Urban green boosterism and city affordability: For whom is the 'branded' green city?. Urban Studies.

Immergluck, D., & Balan, T. (2018). Sustainable for whom? Green urban development, environmental gentrification, and the Atlanta Beltline. Urban Geography, 39(4), 546-562.

Khan, J., Hildingsson, R., & Garting, L. (2020). Sustainable Welfare in Swedish Cities: Challenges of Eco-Social Integration in Urban Sustainability Governance. Sustainability, 12(1), 383.

Mangold, M., Österbring, M., Wallbaum, H., Thuvander, L., & Femenias, P. (2016). Socio-economic impact of renovation and energy retrofitting of the Gothenburg building stock. Energy and buildings, 123, 41-4

Murphy, K. (2012). The social pillar of sustainable development: a literature review and framework for policy analysis. Sustainability: Science, practice and policy, 8(1), 15-29.

Opp, S. M. (2017). The forgotten pillar: a definition for the measurement of social sustainability in American cities. Local Environment, 22(3), 286-305.

Rice, J. L., Cohen, D. A., Long, J., & Jurjevich, J. R. (2020). Contradictions of the climate-friendly city: new perspectives on eco-gentrification and housing justice. International Journal of Urban and Regional Research, 44(1), 145-165.

Shirazi, M. R., & Keivani, R. (2019). The triad of social sustainability: Defining and measuring social sustainability of urban neighbourhoods. Urban Research & Practice, 12(4), 448-471.

7.2 Policy documents

Kommission för ett socialt hållbart Malmö (2013). *Malmös väg mot en hållbar framtid. hälsa, välfärd och rättvisa.* Malmö: Malmö stad.

Malmö stad (n.da). *Handlingsplan för miljöprogrammet - förslag till prioriterat arbete i Malmö stad 2019-2020.* Malmö: Malmö stad

Malmö stad (n.db). *Hållbarhetsrapport 2015 Malmö stad.* Malmö: Malmö stad

Malmö stad (n.dc). *Hållbarhetsrapport 2016 Malmö stad. Tema: delaktighet.* Malmö: Malmö stad

Malmö stad (n.dd). *Hållbarhetsrapport 2017. Tema: barns och ungas psykiska hälsa.* Malmö: Malmö stad

Malmö stad (n.de). *Hållbarhetsrapport 2019. Agenda 2030 i Malmö*. Malmö: Malmö stad

Malmö stad (2006). *Malmö 2005. Aktualisering och komplettering av Malmös översiktsplan.* Malmö: Malmö stad

Malmö stad (2009). *Miljöprogram för Malmö stad 2009-2020.* Malmö: Malmö stad

Malmö stad (2011). *Handlingsplan för klimat- och miljöarbetet i Malmö stad 2011-2014.* Malmö: Malmö stad

Malmö stad (2014). *Översiktsplan för Malmö. Planstrategi antagen av Kommunfullmäktige 22 maj 2014.* Malmö: Malmö stad

Malmö stad (2016). *Trafik- och mobilitetsplan. För ett mer tillgängligt och hållbart Malmö.* Malmö: Malmö stad

Malmö stad (2018). *Översiktsplan för Malmö. Planstrategi.* Malmö: Malmö stad
Malmö stadsbyggnadskontor (1990). *Översiktsplan för Malmö 1990.* Malmö: Malmö stadsbyggnadskontor
Malmö stadsbyggnadskontor (2001). *Översiktsplan för Malmö 2000.* Malmö: Malmö stadsbyggnadskontor
Miljöförvaltningen (n.da). *Handlingsplan för miljöprogrammet – prioriterat arbete i Malmö stad 2015–2018.* Malmö: Miljöförvaltningen.
Miljöförvaltningen (n.db). *Miljöredovisning 2015.* Malmö: Miljöförvaltningen.
Miljöförvaltningen (1997). *Malmös Agenda 21: Avstamp för en god miljö och en hållbar utveckling.* Malmö: Miljöförvaltningen.
Miljöförvaltningen (2003). *Miljöprogram för Malmö stad 2003-2008: Plattform för ekologiskt hållbar utveckling.* Malmö: Miljöförvaltningen.
Miljöförvaltningen (2017). *Miljöredovisning 2016. Uppföljning av Miljöprogram för Malmö stad 2009-2020*. Malmö: Miljöförvaltningen.
Miljöförvaltningen (2019). *Miljöredovisning 2018. Uppföljning av Miljöprogram för Malmö stad 2009-2020.* Malmö: Miljöförvaltningen.

8 Appendix

Table 4 A social pillar of sustainable development (Murphy 2012: 21)

Organizing Dimension	**Policy Area**	**Policy May Be Analyzed For:**
	The "export of pollution"	Commitment to curb the "export of pollution"
Equity	Climate change and the development needs of global southern countries	Commitment to knowledge transfers to global southern countries rather than relying solely on carbon-trading mechanisms
	Vulnerable groups and the effects of climate change	Commitment to assist vulnerable groups in adapting to the effects of climate change
	Vulnerable groups and fiscal measures	Commitment to protect vulnerable groups from fiscal measures designed to mitigate climate change
	Welfare provision to current generations and carbon emissions	Commitment to decarbonize current welfare sector
	Protecting future generations by reducing consumption levels	Commitment to protect future generations by reducing consumption rather than relying solely on market/technological solutions
Awareness for sustainability	ESD and environmental awareness programs and campaigns	Commitment to designing and implementing educational programs for SD through the formal and informal education sectors
	Content of ESD Programs and campaigns	The level to which these programs embrace a challenge to the traditional growth paradigm including nonmaterial conceptions of happiness
Participation	Broadening the participative base of environmental planning processes	The level to which the views and preferences of weaker groups including future generations are reflected in environmental planning processes
Social cohesion	Promoting social cohesion and environmental objectives simultaneously	Commitment to infrastructural planning which promotes social integration and environmental sustainability simultaneously

		Commitment to promoting social activities aimed at environmental goals
		Commitment to developing “transition towns” or initiatives of that type
		Commitment to combating the kinds of environmental conditions which cause civil strife