

And the award goes to...

A critical analysis of environmental reforms in Upplands Väsby

Lynn Sundelius

Master Thesis Series in Environmental Studies and Sustainability Science,
No 2014:015

A thesis submitted in partial fulfillment of the requirements of Lund University
International Master's Programme in Environmental Studies and Sustainability Science
(30hp/credits)



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Submitted May 15, 2014

Supervisor: Sandra Valencia, Centre for Sustainability Studies, Lund University

Abstract

Climate change is exponentially becoming one of the most pressing issues of our time. While it is an issue that plagues the international community it is an issue that needs to be addressed on all levels. Local government has been highlighted as the level closest to the people and is uniquely positioned to instigate a range of activities that directly address climate change and sustainability. This study will highlight the local government of Upplands Väsby as it was awarded in 2013 as the Most Environmentally Conscious Municipality in Sweden. The thesis will explore what initiatives the municipality have pursued and the reasons behind them. The study draws on previous research on possible reasons for why local decision-makers implement sustainability initiatives. The main data have been collected through a document review and by conducting semi-structured interviews with local officials and interest groups in the municipality. The findings show that the most important initiative was implementing an environmental management system. The system has improved the municipality's internal environmental work. The main drivers behind the sustainability actions have been committed leadership and skilled local officials. The results also show that several challenges such as focusing more on community-wide initiatives and engaging the local residents still persist. By examining the present reforms in Upplands Väsby this study hopes to contribute to an understanding of the reasons behind pursuing environmental sustainability at a local level.

Keywords: environmental policy, municipality, municipal capacities, co-benefits, leadership, environmental governance

Word count: 13999

Acknowledgements

I would like to start by expressing my gratitude to the informants that made this study possible. The local officials of Upplands Väsby have been very welcoming and helpful providing me with materials, interviews and support. They have showed me how a local government functions and the challenges and opportunities of working with environmental sustainability. The Society for Nature Conservation and Local Cultural Preservation Society have also helped this study by allocating time for me to meet and discuss their views on the environmental work conducted in Upplands Väsby. All informants have provided me with valuable insights and this thesis would not have been possible without them. I would also like to thank my supervisor, Sandra Valencia for providing me with valuable and encouraging insights throughout this process. Finally, I am grateful to my family and friends who have supported me during this journey. They have provided me with encouragement and an endless supply of chocolate to keep me motivated.

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1. Introduction

Climate change and what to do about it has become one of the most important challenges in the 21st century. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change in 2013 provided the global community with up-to date knowledge about the impacts of climate change. Warming of the climate system is unequivocal as the atmosphere and oceans have warmed, the amounts of snow and ice have diminished, sea level has risen and the concentrations of greenhouse gases have increased (Intergovernmental Panel on Climate Change, 2013). At the same time the world is rapidly urbanizing and climate change will exacerbate the existing urban environmental challenges in cities. While cities are vulnerable to the effects of climate change they are also uniquely positioned to take a global leadership role in both mitigating and adapting to it (Urban Climate Change Research Network, 2011). The 1987 Brundtland report drew attention to the importance of cities as a means through which to address the challenge of sustainable development. Since then the concept of sustainable cities and urban sustainability have become widely promoted policy goals (Bulkeley & Betsill, 2005).

In 1992, the first United Nations conference on Environment and Development was held in Rio de Janeiro and produced the Programme of Action for Sustainable Development, also known as Agenda 21. It highlights that many of the problems and solutions being addressed have their roots in local activities. It is stated in Chapter 28, “that local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes and establish local environmental policies and regulations, and assist in implementing national and sub-national environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development” (United Nations Environment Programme, 1992, p. 285). The local authority’s role was reinforced in 2002 when Local Action 21, an initiative to advance Agenda 21, emphasized the importance of accelerating the implementation of local sustainable development (Baker, Peterson, Brown, McAlpine, 2012). Based on these agendas, local action plans for sustainable development were drafted and implemented by participating countries around the world (Evans, Joas, Sundback & Theobald, 2006).

Sweden played an active role at the 1992 conference and took its outcomes very seriously. According to Eckerberg & Forsberg (1998) the government stated after the conference in the Government Bill 1992/93, “Agenda 21 consists of recommendations and is thus not judicially binding but in the Government’s opinion the action program is politically and morally obligating”. A characteristic feature of the Swedish model of government is the strong reliance on the local level to achieve policy

goals (ibid). Agenda 21 was therefore an important action plan for increasing the responsibility of local governments for environmental policy.

Sweden has an integrative central-local government system where the municipalities have substantial autonomy and financial, constitutional, legal and political resources (Granberg & Elmander, 2007). Municipal powers are exerted within a framework constitutionally legitimized by the Parliament. Sweden consists of 290 municipalities and this study will examine the municipality of Upplands Väsby, located north of Stockholm. This specific municipality was chosen because it was proclaimed to be "*Sveriges Miljöbästa Kommun*", Sweden's Most Environmentally Conscious Municipality in 2013 by the magazine *Miljöaktuellt*.

For the past five years *Miljöaktuellt* has conducted a ranking of all municipalities in Sweden. It is based on their own survey as well as other parameters from various organizations. In its first year, 2009, Upplands Väsby was ranked as 167th in the country. The following years they ranked 37th, 40th, 7th and finally 1st in 2013. Based on this ranking it seems that Upplands Väsby has had a very quick development and an ongoing transformation to enhance their environmental performance.

This study will therefore critically examine the environmental work performed by Upplands Väsby and the reasons behind these reforms. It draws on previous studies, which have examined factors behind implementing local sustainability initiatives. The research will take a qualitative approach to examine the initiatives taken by the municipality leadership and explain why these initiatives were implemented. Furthermore, the challenges they still face regarding environmental sustainability will also be discussed.

1.1 Thesis outline

The words municipality, community and city are used interchangeable in this study to refer to local units of government. Upplands Väsby is commonly referred to as Väsby and both names will be used in this study. The study also differentiates between the geographical area of a municipality and its internal organization. The geographical area describes the community in a wider context and the internal organization consists of the administration and local officials as well as the municipal establishments (schools, preschools, elderly homes).

Firstly, the thesis will present the research questions to inform the reader of what will be answered in the study. Secondly, the analytical foundations used for this research are presented to highlight the importance of local government and the influence they can have on local environmental policy. It also presents arguments for and against pursuing environmental sustainability, which will later be applied to the case of Upplands Väsby. Thirdly, the methodology will be introduced, which will

provide an overview of how the study was conducted. After the reader has gained insight into the research process the case of Upplands Väsby will be presented along with an introduction to the local government system in Sweden. Fourthly, the empirical observations will be presented highlighting key themes that emerged from the research. Finally, the empirical observations will be analyzed and connected to the analytical foundations discussing them in the broader context of sustainability science. Lastly, the study presents its concluding remarks.

1.2 Aim and Research Questions

The purpose of this thesis is to describe and explain the transformation Upplands Väsby has undergone to improve its environmental performance. The study will examine the initiatives taken by the municipality to enhance their environmental performance as well as discuss the reasons behind such initiatives. The research therefore critically examines the environmental performance of Upplands Väsby municipality for the past ten years (2004-2013). The thesis gives an explanation for why they were given the award of “Most Environmentally Conscious Municipality” in Sweden in 2013. Four research questions have been formulated.

1. What have been the main initiatives, if any, taken towards environmental sustainability in Upplands Väsby in the past ten years?
2. What have been the reasons behind the decisions to implement initiatives towards environmental sustainability?
3. To what extent has the annual municipal ranking conducted by *Miljöaktuellt* influenced the local leaders to take initiatives concerning environmental policy in the municipality? What has been the impact of winning?
4. What challenges does the municipality still face with regards to environmental sustainability?

2. Analytical Foundations

2.1 Climate Change and Local Government

Climate change, one of the biggest sustainability challenges of the 21st Century is often perceived as a global problem and often said to require global solutions. The 1992 United Nations Framework Convention on Climate Change and the 1997 Kyoto Protocol have been endorsed to shape the response of the international community (Baker et al, 2012). However, greenhouse gas emissions (GHG) emanate from the activities and decisions of individuals and organizations operating at local, regional, national and international levels (Bulkeley & Kern, 2006). While coordinated global and

national actions are vital, there is also an important sub-national dimension. Local and regional policy-makers are increasingly aware of the impacts of climate change and the challenge of developing effective policy responses for both climate change mitigation and adaptation (Shaw & Theobald, 2011). The enactment of Agenda 21 further highlighted that local government is a key agency for change. Local governments are uniquely positioned to instigate a range of activities that directly address sustainability challenges such as climate change, from land use to electricity consumption (Feiock & Coutts, 2013). Local authorities have a degree of influence over GHG emissions through energy supply and management, transport and planning and waste management. The proliferation of Agenda 21 has shown that local authorities are both willing and able to take on board the complex sustainable development agenda. Local governments can regulate, control, invest and promote within their legal and political remit: with effective leadership, both political and administrative, they may achieve objectives well beyond their formal duties (Evans et al., 2006). Local authorities are also key actors in the urban arena in terms of coordinating action between different partners and facilitating community involvement with policy programs. Some local governments have considerable experience in addressing environmental issues and many have undertaken innovative measures and strategies to reduce their impact (Bulkeley & Betsill, 2005).

Effective local government has the means to address the challenges of sustainable development. However, it is important to highlight that these achievements may not be realized without governance. Evans et al (2006) describe the process of governance as a key mechanism to involve and incorporate citizens and local organizations into the decision-making process. This increases the political engagement and levels of acceptance of local policies. Consultation, dialogue and participation from the local community are therefore needed to effectively govern resources.

Economic and social activities in municipalities that are seen as necessary to develop and sustain local welfare contribute to climate change, through GHG emissions, far beyond the local level. The contribution of one particular local community to the general trajectory of urban or national-level global climate change is very difficult to ascertain (Lundqvist & von Borgstede, 2008). From the perspective offered by Olson (1965) in his theory of collective action, local sustainable initiatives defy the accepted logic of collective action, which predicts that local government will not voluntarily invest in climate change efforts. Cities are expected to free-ride on the efforts of other governments because a city's contributions to the collective good is minimal and the benefits generated are non-excludable (Feiock & Coutts, 2013). Along these lines local governments are not expected to take initiatives on sustainability and climate protection, however research has shown that in considerable numbers they do (Krause, 2013).

One student of governing local resources is Elinor Ostrom (1990), who conducted research on self-organized collective action. Ostrom explained how various internal and external factors may help or impede cooperation. Her research highlights the importance of acknowledging that individuals can defy Olson's theory of collective action if you consider human capabilities and limitations when dealing with shared resources. Ostrom's research has shown that free-riding at the local level is much less of an impediment than theorized.

Internationally, local climate initiatives are becoming more common, both in contexts where they are filling a void left by the absence of national legislation and where they act as coordinated complements to stronger national regulation (Krause, 2013). Even though local governments are uniquely positioned to address a range of activities regarding sustainability, various limitations can exist in municipalities. Research indicates that implementing effective local sustainability initiatives may be beyond the capacity of many local governments (Mukheibir, Kuruppu, Gero, Herriman, 2013). Local officials may have limited awareness and analytical capacity for dealing with impacts of for example climate change (Baker et al., 2012). Furthermore significant constraints on individuals and institutions undertaking actions may exist. Local government is in many countries embedded in a multi-scale context comprising a range of government and non-government actors influencing the decision-making space. Mukheibir et al. (2013) describe leadership, competing priorities, unstructured planning and information and institutional constraints as possible hindrances to implementing sustainability initiatives.

This section has highlighted the benefits and limitations of local government pursuing sustainability initiatives. Even though constraints may occur, municipalities are still positioned closest to the people and can promote sustainability within the community. Free-riding has not stopped the emergence of local sustainability initiatives as they are becoming more common worldwide. The approaches available vary and the following section will describe different means that municipal governments can take to achieve environmental sustainability.

2.2 Pursuing Sustainability Initiatives Locally

Local governments are increasingly investing in programs and initiatives to promote sustainability. Environmental policy can include a variety of initiatives ranging from climate protection and energy efficiency to comprehensive land use planning (Daley, Sharp, Bae, 2013). The primary target of the sustainability efforts is important. Local sustainability programs can take the form of demand-side or supply-side instruments and be directed to individuals and individual behavior or to organizations and firms. Demand-side policy programs seek to influence behavior. They can, for example, target voluntary consumer action through taxes and other incentives or they can mandate behavior with

regulation. Supply-side instruments, however, may target the energy production technologies of utilities and municipal governments. The approaches that municipal governments can take vary substantially. For instance, climate policies might be directed to in-house government operations to increase the energy efficiency and reduce the emissions of local government facilities, transport and operations. Alternatively, they can be directed outward to promote or restrict the activities of non-governmental actors in the larger community (Feiock & Coutts, 2013).

There are several sustainability policies available, whether the municipality focuses on in-house or community-wide initiatives. However, the question of why local officials would want to pursue sustainability and climate initiatives when the benefits must be shared still persists. This question will be presented in the following sections.

2.2.1 Drivers of Local Level Sustainability Initiatives

2.2.2 Co-benefits

Local officials are often able to overcome collective action problems because sustainability programs produce local, community-specific benefits that go beyond the environmental sustainability benefit. Such benefits could be the reduction of pollution (which has health and environmental benefits), attract green economic development and reduction of energy costs for government, businesses and residents. These additional co-benefits are considered by many local decision makers to be a primary motivation for city sustainability (Feiock & Coutts, 2013).

Many of the benefits are realized at the regional scale because the benefit will depend on the actions of its neighboring governments. Regional actions can improve the efficiencies of transboundary decisions and coordinate collective goods for the area. Regional networks, organizations and institutions are therefore needed. They address the co-benefits of sustainability to enhance positive externalities and provide potential institutional mechanisms to reduce negative externalities. Although regional collaboration is essential there is often a spatial mismatch between local and regional jurisdiction (Carter, Rubin, Sumek, 1974). For example municipalities are linked through shared infrastructure and communication networks. Even though a regional collaboration may exist among local municipalities, most often do not have jurisdiction over these matters (Feiock & Coutts, 2013). Coordination is therefore also needed with regional actors in the pursuit for regional sustainability.

2.2.3 Capacity Theory

One theory connected to local policy-making is tied to capacity. Two of the factors that are strong influences of local governments overall capacities are their fiscal health and staff capabilities. In this

context fiscal health refers to a municipality's ability to adequately fund its programs and services as well as have the means and flexibility to support its more innovative priorities. For example a lack of financial resources is cited by municipalities as the most common obstacle to pursuing GHG reduction initiatives. Although GHG reduction measures often save energy and money, high upfront costs and extended payback periods can prevent investment.

Staff capabilities refers to the technical and administrative abilities of employees and is a function of both their quantity and quality: there must be enough employees to perform the tasks expected of them and they must be adequately skilled (Krause, 2012). Another important factor is the institutional capacity among local officials. Institutions with collective values, knowledge and good relationships are expected to act effectively and efficiently. In the context of sustainable development it could be expected that such institutions would be more proactive in the undertaking of sustainable initiatives (Evans et al., 2006).

A third related type of capacity is the ability to motivate the co-operation of private actors. Progressive goals in urban governance including environmental protection tend to rest on a base of popular support. Their achievement necessitates the coordination of both institutional elites and the public at large, which can require significant levels of resources (Krause, 2013).

2.2.4 The Importance of Civil Society

Research shows that in those cases that exhibit sustainable development policy achievements there are also greater levels of civil society activity and knowledge regarding sustainable issues. Evans et al (2006) found that the existence of business and industry sectors, university and education and local media influence the local authorities to pursue sustainability initiatives. The study found in general that where the intensity of policy achievement is high, there appears to be a greater buy-in to and civic engagement with local government policy-making and action. In these cases it seems that local government recognizes the contribution that civil society groups can make to the process: in turn, those groups respond by recognizing that they can impose some influence.

2.2.5 Policy Entrepreneurs

Entrepreneurial figures are defined to have the charisma and commitment to motivate others and to promote the sustainable agenda. They are important key individuals in driving local sustainable development forward (Evans et al., 2006). The policy entrepreneur actively sets out to shape policy at the agenda-setting stage. These actors fulfill the function of coupling problems, solutions and political opportunities. When successful they use temporary and externally generated windows of opportunity (Hysing, 2014). These actors are of key importance for policy change. While the

motivations for the entrepreneur's involvement are often political or personal, they are more likely to influence if resources and attention for an issue are present. The population of potential entrepreneurs has unobservable distribution across local governments but certain conditions such as healthy finances make entrepreneurs more likely to emerge and be successful (Krause, 2013).

Policy entrepreneurs can play a vital role in setting the sustainability agenda, however, depending on their interest they could also influence the opposite direction. In the USA, for example, corporations with interests tied to fossil fuels are threatened by climate change policies (McCright & Dunlap, 2003). Powerful interests can have a strong local role and engage in strategic tactics to reframe certain negative environmental conditions as non-problematic. Therefore a policy entrepreneur, depending on his/her interest can influence, support or reject sustainability policies (Schwom, Bidwell, Dan, Dietz, 2010).

This section has described the importance of local government. It has presented various concepts that contribute or hinder the process of investing in local sustainability initiatives. Co-benefits is found to be one of the main reasons cities pursue environmental sustainability efforts. Benefits such as reduced costs often help influence the policy makers towards more environmentally friendly programs. Fiscal health, institutional and staff capabilities are important capacities as the presence or absence of these can contribute or impede action. Policy entrepreneurs and civil society are also described as important drivers for pursuing policy. However, they can also influence policy that impedes sustainability depending on their interests. The following section presents two empirical studies that highlight these reasons and capacities as decisive for pursuing local environmental initiatives.

2.3 Evidence Against Free-riding

Kousky and Schneider (2003) examine the motivation behind municipal action on climate change in the United States (USA). The cities examined are part of the International Council for Local Environmental Initiatives (ICLEI), which encourages local governments to implement mitigation policies. At the time of the study 140 cities in the USA were involved demonstrating that free-riding has not prevented action for initial levels of GHG abatement. Four possible reasons are hypothesized: i) mitigation activities are perceived to generate cost savings; ii) additional benefits can be captured; iii) municipalities are altruistic; and iv) local officials respond to citizen pressure to undertake policy action.

Kousky and Schneider's study interviewed local officials and staff members from 23 ICLEI municipalities. The questions addressed the decision-making process and motivations behind each city's decision to join the framework. Even though each municipality had its own particular

circumstances and they were all in different stages of the process, several factors were repeated by respondents. The most common answer was pursuing climate protection policies that generated or could generate cost savings. The perceived existence of other local benefits stemming from many mitigation projects influenced policy development. In some cities the existence of an issue champion¹ was essential to initiating climate policy. A comparative study of Toronto and Chicago by Lambright et al., (1996) found many of these same reasons. The existence of an issue champion, environmental consciousness, recognition of co-benefits and economic benefits were influential in the development of a municipal climate policy.

The second study conducted by Krause (2013) is based on Kousky & Schneider's four hypotheses. Krause highlights that the relative importance of the reasons varies by location. It is further stated that their relative importance likely influences the nature and comprehensiveness for climate actions implemented. The study examines cities that have claimed an explicit commitment to climate protection in the USA. The aim of the study is to examine cities committed to climate protection and discuss if it makes any practical difference whether they were motivated by altruism or the pursuit of local co-benefits. The results suggest that motivations leading to climate adoption have practical impact on the implementation of actions that follow. A strong public goods motivation and political support from local officials increase comprehensiveness in the overall climate planning effort.

The two empirical studies presented have clarified different reasons why local governments are for or against pursuing reforms concerning environmental sustainability. Therefore they help support the arguments presented in the previous sections, which highlight co-benefits, capacities, policy entrepreneurs and civil involvement as important reasons. The analytical foundations will later be applied to the case of Upplands Väsby to help identify the reasons behind the municipality's environmental reforms.

3. Methodology

3.1 Research Design

The empirical observations for this study began when a sign was spotted in Upplands Väsby reading "*Sveriges Miljöbästa Kommun*" (the Most Environmentally Conscious Municipality in Sweden). This caught my attention and the research process started by investigating the municipal ranking performed by *Miljöaktuellt* and Upplands Väsby's previous placements. From the ranking they

¹ Similar notion of policy entrepreneur as it is defined as a figure with the charisma and commitment to motivate others and to promote the sustainability agenda

seemed to have had a rather fast development going from 167th in 2009 to emerge to 37th (2010), 40th (2011), 7th (2012) and 1st in 2013 (see table 2). I then decided to examine the environmental performance of Upplands Väsby and focus on the reasons why local governments decide to pursue local sustainability initiatives.

The research is primarily inductive as it emerged from my empirical observations concerning the environmental performance. Following this I found theories and previous studies to help explain those observations. The ontological consideration in this study is constructionism. As a researcher it allows me to consider the ways in which social reality is an ongoing process of social actors. My epistemological perspective is interpretivist where knowledge is gained through personal experience (Bryman, 2012). I have interpreted reasons and decisions of local officials and interest groups in the municipality of Upplands Väsby. I have interpreted and attempted to contribute to an understanding why local officials decide to pursue sustainability initiatives and how they perceive their environmental work.

I have chosen a case study research design. The municipality of Upplands Väsby was chosen as a case of local decision-making toward environmental sustainability. In that respect, the case study design allowed me to explore how and why (Yin, 2003) the municipality has been recognized as the most environmentally conscious in Sweden. While the findings of the case are not generalizable they can shed light into the role local leaders and environmental performance indicators play in providing incentives towards actions that can lead to sustainable development.

3.2 Data Collection

The main data have been collected by a literature and document review and by conducting semi-structured interviews. Documents such as annual reports, environmental plans and budgets have been used to gain insight into the main sustainability initiatives and strategies implemented in the municipality. Most of the documents were translated from Swedish. They were used for the analysis and also to corroborate the findings from the interviews.

I conducted semi-structured interviews with open-ended questions. This method was chosen because it provides the interview with particular areas of focus and allows a degree of flexibility in responses. It also allows respondents to contribute particular interest and experiences. The interviewees were selected by purposive sampling meaning they were selected in a strategic way due to their relevance of the study. After a few initial contacts were established I used snowball sampling, meaning that my contacts referred me to other participants, which could be of relevance to the research (Bryman, 2012).

A total of nine interviews were conducted ranging from 30-90 minutes each (See table 1). Six of the interviews were conducted in person and the remaining via telephone. All interviews were conducted and transcribed in Swedish. Six of the interviews were with local officials working in various areas connected to environmental policy at the municipality. I spoke both with civil servants and elected officials, which provided me with information to the major environmental issues and strategies for dealing with such issues. I also spoke to a journalist at *Miljöaktuellt* who has been involved in the yearly ranking. I decided to seek this informant out as I was wanted to learn more about the ranking and the criteria used.

Table 1. The table presents the title, type of official and belonging department of the informants as well as the type of interview conducted.

Title	Type of Official	Department	Type of Interview
Environment and Quality Controller	Civil Servant	Office for Internal Support	In Person
Environmental Strategist	Civil Servant	Office for Internal Support	In Person
Chairman of the Environment and Planning Committee	Elected Official	Municipal Executive Committee	In Person
Environmental Planner	Civil Servant	Office for Community Development	In Person
Energy Controller	Civil Servant	Office for Community Development	In Person
Chairman	Civilian	Local Office of the Society for Nature Conservation	In Person
Member	Elected Official	The Green Party	Telephone
Member	Civilian	Local Cultural Preservation Society	Telephone
Journalist	Civilian	<i>Miljöaktuellt</i>	Telephone

I also sought out a critical perspective speaking to the local office of the Swedish Society for Nature Conservation² and with an elected official from the Green Party³, which is part of the opposition in the municipality. I also spoke to the Local Cultural Preservation Society⁴ in Väsby, which provided me with a citizen perspective. Furthermore, I have sought to enhance the credibility of the study through respondent validation. By providing the informants with an account of the findings I have been able to ensure that as a researcher I have correctly understood the work of the municipality and that the observations are congruent with the given views of the informants.

3.3 Limitations

The main concern when conducting this research is that some respondents might have over-emphasized their answers to me to sound more committed to environmental issues than they in fact are. To overcome this risk I have reached out to local and nature-oriented groups in the municipality. I interviewed the Swedish Society for Nature Conservation's local office in Upplands Väsby to get a different perspective on the municipality's environmental performance. They inform the residents and instigate public opinion on nature and sustainability issues within the municipality. I also spoke to a representative of the opposition (The Green Party). With the help from these informants I was able to gain other perspectives regarding the ongoing environmental work and provide the research with a critical view. As a researcher this was also an important part as I recognize that complete objectivity is impossible in social research. By adding a critical view I have been able to reduce the risk of my personal values or theoretical inclinations to sway the conduct of the research and findings.

However, one view that is not fully represented in this study is the perspective of local residents living in the municipality. The inhabitants are an important part of local governance and not having a reliable data on their views is a limitation to the research. I did speak to the Local Cultural Preservation Society, which provided me with an understanding of how they as citizens in the municipality feel concerning their participation. However, it would have been interesting to further this representation and reach out to more active members and associations. Perhaps a survey had enabled me to gain opinions from the residents themselves.

² The Swedish Society for Nature Conservation is a non-profit organization with no political or religious affiliation that aims to influence legislation, inform and create opinion on environmental issues. (The Swedish Society for Nature Conservation, 2014).

³ The Green Party is part of a global environmental movement that politically strives for humans to live within the planetary boundaries. (Swedish Green Party, 2014).

⁴ The Local Cultural Preservation Society serves to safeguard the area's cultural heritage by contributing to the care and preservation of natural, cultural and historical values (The Local Cultural Preservation Society, 2014).

The research includes a limited number of interviews. However, they are with key informants providing the study with important inside views of the environmental work of Upplands Väsby. Another important consideration is that I reached out to informants working with various issues and in different departments to gain a broader understanding. The small number of interviewees is also complemented with a literature and document review to check the information provided by the informants.

4. Environmental Reforms through Municipal Actions Work

4.1 Sweden's Environmental Objectives

The aim of Swedish environmental policy is to hand over a society in which the major environmental problems have been solved. To ensure this goal the Swedish Parliament adopted in 1999 fifteen environmental quality objectives. A sixteenth was added in 2005 (See appendix A). These objectives describe the state of the Swedish environment and are supposed to provide a clear structure to environmental action. The environmental quality objectives are to be met by 2020 (2050 in the case of the climate objective) (The Swedish Environmental Protection Agency, 2012). Each goal is accompanied by a number of specifications and milestone targets to pinpoint focus areas for action. The objectives and targets are to function as guidance to county administrative boards, government agencies, municipalities and corporations on important priorities for continuing environmental action (Ministry of the Environment, 2013). The county administrative boards have an overarching role in implementing the objectives on a regional level. They work on the targets in their counties in collaboration with various stakeholders. Most often counties and municipalities formulate local objectives and action programs to correspond with the national objectives (SEPA, 2012).

4.2 The Role of Municipalities

Swedish local governments have constitutional powers to regulate, control, invest and promote the common interest of the citizens within their legal and political territory (Evans et al., 2006). Municipalities influence environmental efforts through political decisions in a range of areas. Municipalities work extensively on the national environmental objectives and almost all have their own goals. Translating national and regional environmental objectives into local objectives and measures makes for effective tools in local policies. For example many municipalities have introduced environmental management systems, green indicators and coordination of various environmental plans (Ministry of the Environment, 2006). The environmental objectives can also be used in the municipality's development and planning as they have monopoly on physical planning. This is for example influential on the infrastructure, energy and water supplies, building and housing

developments or protection and preservation of cultural heritage (Lundqvist & Borgstede, 2008). Municipalities are allocated a great deal of local freedom, however, they are still obliged to act under national and EU laws. The national government has high expectations on the municipalities partaking in the environmental work associated with the environmental objectives. Yet the municipalities do not receive any additional funding for their work with the objectives, which is why local political priorities are essential. The objectives are therefore a challenge as well as an invitation from the national government (Swedish Association of Local Authorities and Regions, 2013a).

According to Agenda 21 local government is the level of governance closest to the people (UNEP, 1992) and is therefore best placed to pursue the sustainability goal of thinking globally, acting locally. Elected representatives in municipalities take decisions about the services that are closest to the citizens. In democratic terms it is important because the citizens' closeness to decision-making makes it easier for them to gain access to local politicians and hold them accountable for their decisions (Adolfsson, 2002). This in turn also improves their opportunities to influence service provision in their municipality. An example is the education system and the role it plays in equipping children with the knowledge and will to work for sustainable development (Ministry of the Environment, 2006).

4.3 The Municipal Organization

The municipal organization is principally the same in all municipalities in Sweden. The highest political level in a municipality consists of the elected Municipal Council. They are the municipal counterpart to the national Parliament and take all overarching decisions in the municipality. The residents elect local politicians every four years. The municipal counterpart to the national government is the Municipal Executive Committee. They are elected by and are responsible for preparing and implementing decisions addressed by the Municipal Council. They are also responsible for the specialized Committees (SALAR, 2013b).

The major differences among Swedish municipalities are found among the specialized Committees. Upplands Väsby is organized into seven specialized Committees that have jurisdiction over various areas (See figure 1) (Upplands Väsby Municipality, 2013a). The elected officials in the Committees are appointed by the Municipal Council and are responsible for the daily work conducted.

Connected to the specialized Committees are Offices. The Municipal Office corresponds with the Municipal Executive Committee and overlooks the work conducted in the Offices. The distinction between a specialized Committee and an Office is that the specialized Committee is the commissioning body and consists of elected officials. The Office is the executer and consists of civil servants that put the municipal affairs into action (SALAR, 2013b.).

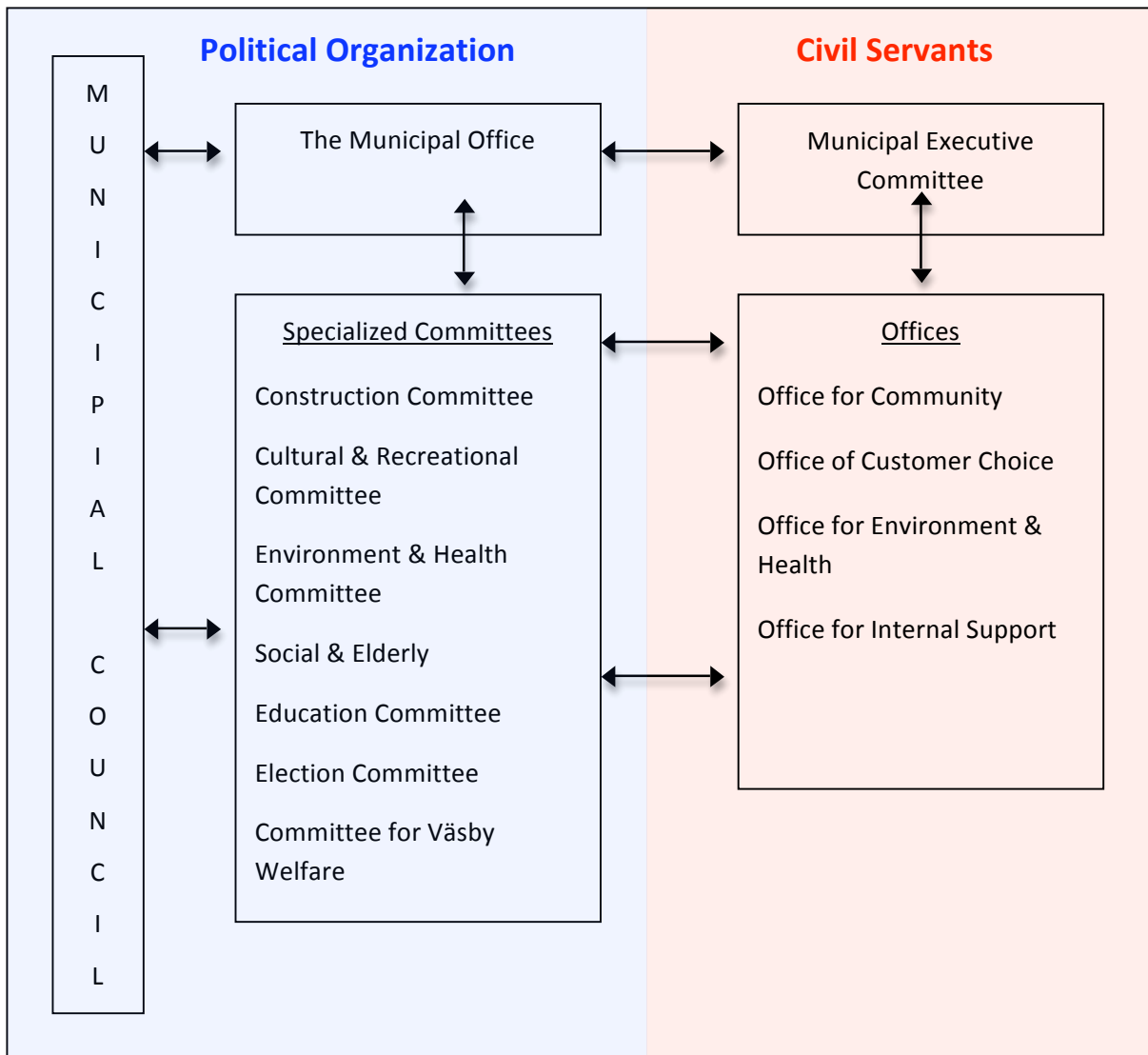


Figure 1. Presents the municipal organization of Upplands Väsby (Upplands Väsby, 2014a).

4.4 Upplands Väsby

Upplands Väsby is one of Sweden's 290 municipalities and is situated north of Stockholm in one of the most prominent developmental areas in Sweden. It is a relatively young municipality, established in 1952, however, with a long history. Historically, Upplands Väsby was an important part of the Viking trade routes connecting larger cities in the region, which created the circumstances for people to settle here. Since then the area has had an attractive location with an extensive transportation network, which has been important for the development of the area.

Väsby's geographical location, 45km to Uppsala, 25km to Stockholm and 15km to Arlanda airport makes it a vital part of the development of the Stockholm region. The landscape is varied with forest, lakes and agricultural land. The total land area is 85km² and one third constitutes developed area (Upplands Väsby, 2005). The constructed area of the municipality is divided by the railway and E4 motorway creating distinct barriers in the north-south direction. Väsby center and Väsby train station are located between these barriers along with the denser part of the population. Larger areas with

fewer settlements are located on the opposite sides of the E4 and railway (Upplands Väsby Municipality, 2011a).

The municipality is characterized by a lot of commuting in and out of the area and 2/3 of the population daily commute to other municipalities for work (Upplands Väsby Municipality, 2013b). As part of the plan to safeguard the local economy is to make the town attractive to new knowledge-based businesses that are replacing older manufacturing industries (Upplands Väsby Municipality, 2011a).

The population today is approximately 40000 with a growth rate of 1.3% (Upplands Väsby Municipality, 2014b). The municipality has struggled to attract younger residents and have a lower influx compared to neighboring municipalities. New businesses find Väsby attractive due to its location, however, employees are sometimes reluctant to relocate due to the quality of housing availability (Upplands Väsby Municipality, 2011a). About 40% of the area is of national interest for further development of Arlanda, hindering the spaces available for new construction (Upplands Väsby Municipality, 2005). Further, because of its location the municipality faces several environmental challenges. Noise pollution and emissions are the biggest issues as 60000 cars pass through the municipality each day (Upplands Väsby Municipality, 2010).

4.4.1 The Environmental Vision

In the Master Plan (2005) Upplands Väsby describes sustainable development as a multidimensional term with several perspectives. They view sustainable development from an economic, ecologic, social and cultural perspective. To achieve long-term sustainable development all parts of the municipality must be involved. This applies to the municipal organization and the municipality owned entities as well as the residents, businesses and other stakeholders.

In 2006 the municipal council decided on ten overall objectives that describe the common direction within the municipal organization (Berglund, personal communication, 2014). The objectives are addressed through the lens of the four following dimensions: i) customer, ii) society & environment, iii) employee and iv) economy. The perspectives summarize the common efforts to create an attractive municipality and ensure good economic management. Based on the objectives and the four perspectives the various boards and committees in the municipality set their own goals and action plans. To assess the compliance rate, selected indicators are used for reporting and together with the goals represent a guide for reference (Upplands Väsby Municipality, 2013b).

According to the municipality, the environmental vision is to be a leading example and forerunner for managing environmental problems in Sweden. The municipality aims to develop a sustainable city

with good public transport and bike connections with close access to recreation. The municipality wants to set an example by conducting systematic environmental work that will lead to a sustainable community (Upplands Väsby Municipality, 2013c).

4.5 Reinventing Väsby

In the late 1990s Upplands Väsby experienced an economic recession. This resulted in a halted development. The municipality experienced that many residents moved out from the area resulting in a loss of important tax revenues. A new master plan, replacing one from the early 1990s was developed to help the municipality's development in a larger context. During this time it had become apparent that the municipality needed a new strategy for making the municipality attractive (Upplands Väsby Municipality, 2005). Today, regions, cities and municipalities compete with each other for residents, businesses and visitors. It is therefore important for municipalities to know what makes an area attractive and how it can be utilized to attract new income (Upplands Väsby Municipality, 2007).

A first step in this process was to adapt a vision for the entire municipality. This vision included transforming the municipality from a traditional "Folkhem"⁵ to a new, reinvented version of Väsby. The new plan went under the name of "The Future of Väsby" with the vision of a municipality with an attractive location, innovation and entrepreneurship combined with nature and recreational opportunities. In 2000 and 2001 public participation was an important part of developing the plan and political parties and residents gathered to share their thoughts and ideas for the future. In 2003 a SWOT⁶ analysis was conducted, which the master plan was later based on. The plan was adopted in 2005 and has since been used as a guide for decision-makers. Prior to the plan the municipality had a myriad of plans, programs and policies making it difficult to have an overview of how the municipality should develop and be governed. The purpose of the master plan was therefore to gain a better overview and find areas of focus concerning new development and initiatives (Upplands Väsby Municipality, 2005).

A collective symbol for the brand of Väsby had been discussed back and forth for years. After collaborating with residents and local businesses the brand has become clearer and the municipality's vision has direction. A vital part of the vision is collaboratively working with other municipalities to enhance the brand of Stockholm region as well as working with neighboring municipalities on various issues of significance for the development of the area.

⁵ Term used to describe the welfare state (Upplands Väsby Municipality, 2005).

⁶ Strengths, weaknesses, opportunities and threats (Upplands Väsby Municipality, 2005).

4.6 Miljöaktuellt

Miljöaktuellt is Sweden's largest environmental magazine. In 2009, the municipal ranking was conducted for the first time evaluating the environmental performance of Sweden's 290 municipalities. The purpose of the ranking is to help drive environmental development forward. It helps encourage municipalities that are in the forefront to continue with their work as well as motivate those that are behind (*Miljöaktuellt*, 2012).

The ranking is based on several parameters⁷, which have varied from year to year as the ranking has developed. Focus has mainly been on membership in environmental networks, surveys concerning organic food, waste, car usage, energy efficiency, water and education (*Miljöaktuellt*, 2013). The most important part of the ranking is the survey conducted by *Miljöaktuellt*. The survey tries to encompass a variety of environmental areas to provide a general overview of the environmental work conducted (Gunnarsson, personal communication, 2014). To assess the municipalities the questions asked in the surveys are based on the municipalities' willingness to change. *Miljöaktuellt* has chosen not to use statistical variables that could lead to municipalities wrongly being proclaimed as non-environmentally conscious. The questions asked have to be able to accommodate both small and large municipalities. *Miljöaktuellt* has therefore decided to exclude questions that might be seen as unfair to smaller municipalities, for example, questions concerning an effective public transportation system (Backman, 2009).

Table 2. The placing and points awarded to Upplands Väsby in the municipal ranking from 2009-2013.

Year	Points	Placement
2013	40.11 / 57	1
2012	25.95 / 35	7
2011	- ⁸	40
2010	15.60 / 30	37
2009	6 / 20	167

⁷ See appendix B for 2013s parameters

⁸ In 2011 *Miljöaktuellt* collaborated with the company *Miljöbarometern* and posted the results via its website. The results have since been taken down and are for unknown reasons no longer available online (Gunnarsson, personal communication, May 6th, 2014).

5. Empirical Observations; Achievements and Drivers

5.1 Exploring Väsby's Environmental Reforms

This section will describe the process that Upplands Väsby has experienced to be regarded as Sweden's Most Environmentally Conscious Municipality. I have interviewed local officials from the municipality as well as local residents representing the Society for Nature Conservation, the Green Party and the Local Cultural Preservation Society. The interviews focused on the main initiatives present in the municipality and the reasons for pursuing environmental sustainability. The key themes that emerged are presented in this section.

5.2 Pursuing Sustainability

As earlier mentioned the municipality has political jurisdiction over the geographical area of Upplands Väsby as well as the municipal organization. The internal organization includes the administration and local officials and public establishments owned by the municipality. To help improve the environmental work the municipality conducted an investigation in 2007 to pinpoint the major environmental challenges. Eight prioritized areas were identified waste, noise, energy use, chemical use, education, land use, traffic and transport, water use and climate (Upplands Väsby Municipality, 2013b).

5.3 In-house Initiatives

In-house initiatives are aimed at all municipal operations, committees and offices. The official representatives see the in-house initiatives as important efforts to get your own house in order and be a leading example for the community. The following sections will present the most important in-house initiatives.

5.3.1 Energy

A great deal of initiatives has been targeted towards improving the energy efficiency and use of green energy. In 2011 the municipality invested in a wind turbine. The investment was seen as an important initiative to help reduce the municipal footprint as well as energy costs. Energy produced from the wind turbine is estimated to produce ¼ of the internal municipal energy usage and reduce energy costs by three million SEK per annum (Upplands Väsby Municipality, 2011b). In 2013 (its first year in commission) it produced 1Gwh less than estimated due to a bad wind year. As summarized in the yearly report, "given the uncertainties regarding wind production the outcome of its first year is positive" (Rudemyr, 2014, p 2).

Other initiatives to improve energy efficiency include installing energy-efficient technology such as lights and appliances and regulating ventilation in all municipal establishments. With all new

development as well as renovations of older properties stricter demands are put on energy consumption (Upplands Väsby Municipality, 2012a). Even though the municipality has invested in various energy initiatives it is highlighted by the Green Party representative that wider initiatives are needed. Businesses and local residents need to reduce their energy usage if the municipality wants to achieve the objective of reducing GHG emissions.

5.3.2 Transport

Within the transport sector the municipality encourages video and telephone conferences. An internal bike pool and car pool have been established. Investments have also been made to replace the service cars to biogas cars.

5.3.3 Information

A lot of in-house initiatives are focused on information and education within the organization and public establishments. Energy controllers are in the process of collaborating with students and teachers to improve the overall energy efficiency. The project aims to involve students in the energy improvements made at schools to enhance the awareness concerning energy and sustainability (Energy Controller, Office for Community Development). Schools and preschools are also encouraged to continually work with environmental issues by producing goals and action plans.

Within the internal organization employees have all conducted workshops and sessions to enhance the level of education concerning environmental sustainability. The aim of these activities is to promote sustainability and integrate it as part of the daily routine.

The municipal respondents are positive to the progress that Väsby has made but are aware that more work is needed. Even though the municipality has invested in some positive in-house initiatives the Society for Nature Conservancy and Green Party representatives highlight the need to invest more in community-wide initiatives. The informants mention that most in-house efforts are very basic and are already implemented in most municipalities in Sweden. However, something that makes Väsby different from other municipalities is that the entire municipal organization is environmentally certified. This will be explained in the following section.

5.3.4 Environmental Management System

In 2010 the municipality was environmentally certified by ISO 14001⁹ introducing an environmental management system to the internal organization. The decision to become certified was taken by the

⁹ ISO is the International Organization for Standardization and ISO set out criteria for an environmental management system and maps out a framework that an organization can follow to set up an effective

Municipal Council in 2006 and it was a political decision by the Alliance¹⁰. The local official representatives highlighted that the environmental management system has been the most important in-house initiative. According to the informants the implementation of the system has created a good structure for the internal organization and improved the efficiency and quality of the environmental work. The system has helped integrate planning and measures so they are conducted as part of a regular routine within the internal organization. It is highlighted that these routines give the planning, implementation, follow-up and improvement process more structure and coherence.

Prior to the environmental management system, the various committees, offices and public operations conducted the internal work with very little coordination. If a certain manager or committee didn't have an interest in environmental sustainability then it was not prioritized. It was mostly employees with an interest for the issues that pursued the internal work. However, the lack of regulations and procedures made it difficult for them (Environmental Strategist, Office for Internal Support).

5.3.4.1 Strengths

The greatest benefit described by all local officials was that the certification has provided the internal organization with a comprehensive system. The environmental management system clarifies what environmental areas to focus on. The chain from goal to action to monitoring and follow up has had a significant impact on the overall work conducted. The informants explained that it has become easier to identify weaknesses and areas of focus to implement important in-house initiatives.

One informant highlighted that the system requires both internal and external audits (Environment & Quality Controller, Office for Internal Support). To maintain the certification external audits are conducted yearly to ensure that the requirements are being met. Internal auditors regularly examine that the various committees, offices and operations are working with environmental issues in the management system and following the standards of ISO 14001. The internal audits provide the possibility to share information regarding the difficulties and improvements needed within the internal municipal organization. The interview respondents explained that in order to keep the certification the municipality always has to improve. The efforts towards pursuing environmental sustainability cannot stop. It is an ongoing process that the municipality has committed to.

environmental management system (International Organization for Standardization, 2010). The system is based on the Plan-Do-Check-Act cycle. Plan is developing an environmental policy and planning for the system. Do represents the implementation. Check involves review and Act is continuous improvement (Emilsson, 2005).

¹⁰ The Alliance consists of the Moderate Party, the Centre Part, Liberal Party and Christian Democrats.

From the informants it has become clear that the environmental management system has improved the structure of the internal organization and made the work more efficient. It has also made environmental sustainability a priority as they have committed to a system that constantly sets criteria to improve.

5.4 The Impact of *Miljöaktuellt's* Ranking

Even though the municipality has had the goal of improving their placement in the municipal ranking conducted by *Miljöaktuellt*, the officials mention that the ranking has not influenced their environmental work. Further, the ranking changes every year adding and changing questions, which makes it difficult to follow. Instead, as mentioned earlier the implementation of the environmental management system has made the internal work easier. The Environmental Strategist believes that this is why the municipality won the award of Most Environmentally Conscious. The ISO certification has been an important driver of reforms as it has helped identify causes for their environmental impact. Efforts have since been made to enhance their environmental work.

For the internal organization the ranking has been received with pride as it confirms that the officials' work is paying off. Since the award, officials have often mentioned being the most environmentally conscious as a reason for pursuing certain initiatives or ideas (Environmental Strategist, Internal Office for Support). Interviewees also highlighted that the officials are better at talking outwards about their achievements, which is important in portraying their abilities as a municipality. However, a representative from the Green Party warned that the award also poses a risk of reducing the municipality's efforts because it has already won.

According to local officials the residents have little knowledge concerning the ranking and the award. The municipality has raised several signs saying "*Sveriges Miljöbästa Kommun*", which has fueled some negative reactions as residents want to know why these signs have been put up. A member of the Municipal Executive Committee highlights that the award has provided a platform to better communicate with the residents of Väsby the environmental work the municipality is doing. It has been easier to inform them about the work the officials are pursuing and how residents can influence this. It is also explained that the decision to focus on the environment was a top-down approach. However, the approach does not work if the residents do not accept or understand this decision. Traditionally, it has been difficult for the municipality to reach out to the community and share information but the ranking has made this easier (Environment and Planning Committee, Municipal Executive Committee).

The Green Party and the Local Cultural Preservation Society are overall critical of the survey questions as well as of *Miljöaktuellt*. In their view the award does not reflect the work perceived

outwards to the community. The internal organization is a good precursor, however more efforts need to be pursued towards the community to engage residents and local businesses. The municipal respondents are also aware that more efforts need to be pursued concerning community-wide initiatives. For example planning for community development while accounting for environmental sustainability is a recurring challenge.

5.5 Community-wide Initiatives

Respondents involved with community-wide initiatives agreed that the environmental management system has internally improved the environmental work conducted. However, community-wide initiatives are aimed towards the physical planning and social development of the municipality. Community-wide initiatives are therefore difficult to steer within a system as they involve the entire geographical area. (Environmental Planner, Office for Community Development).

5.5.1 Land use

According to the Municipal Council establishing new housing is essential for the future development of Väsby (Upplands Väsby Municipality, 2011a). The municipality is in the process of planning for a new neighborhood called Väsby Lakeside. The planned neighborhood would involve 3000 new homes. However, critique has been directed towards the plans. The development would encroach on a preserved forest part of the green Stockholm region wedges. It was highlighted by the Society for Nature Conservation that the municipality is the actor with the most influence over sustainable managing the land. Therefore they should use this influence and propose development in other areas. The negative reactions to the project have led to a local referendum to be held in conjunction with the September 2014 election. Further, the Local Cultural Preservation Society describes that the planning for new development has increased in recent years. They are also critical towards the focus of replacing older buildings with new ones diminishing historic and cultural values.

5.5.2 Transport

Other community-wide initiatives involve improvement of pedestrian and cycling paths. Within the denser areas the cycling network is well established but some lanes need to be extended. According to the municipalities Traffic Plan (2013d) emphasis is put on connecting the outer parts of the municipality with the central area. Initiatives also involve establishing more parking in conjunction with bus stops to encourage higher usage of public transport. A speed limit analysis has also helped identify streets where the speed limit has been reduced. This has helped improve the traffic safety for pedestrians and cyclists.

Improving the public transport is of high priority in the municipality. However, they have a limited ability to influence this issue. Public transportation is a regional matter decided by the Stockholm County Council Traffic Administration. Efforts are still pursued through collaboration to enhance bus routes, timetables and connections to improve the usage of public transport.

5.5.3 Energy

The municipality has reduced the community's energy use by replacing traffic lights and outside lighting with more energy efficient bulbs. Another initiative is Klimatavtal Väsby, which is a climate agreement offered to businesses. The agreement, which is voluntary commits businesses to reduce their climate impact. By mapping their current energy use they decide on yearly targets and conduct an action plan. In return for their commitment the companies get exposure and press to show that they are environmentally conscious (Upplands Väsby Municipality, 2012b). The Environment & Quality Controller mentions that the municipality hopes to further this concept and offer alternatives to private residents and organizations in the future. The Green Party representative is critical to this initiative saying that it is a "paper product", meaning that limited efforts are pursued and more pressure needs to be put on businesses and residents concerning GHG emissions.

5.5.4 Outreach

The official informants shared their difficulty of reaching out to the community. Information campaigns and activities were highlighted as the most important means of communicating. Environmental days and various activities are organized yearly where officials can interact with local citizens. The municipality also acts as an information centre, which offers guidance and advice for residents.

5.6 Civil Society

A representative for the Local Cultural Preservation Society provided the study with insights to the engagement of civil society in Väsby. The association highlights that a discontent exists with the local officials. Residents have expressed that they are involved too late in the planning process. It was mentioned that local officials' ideas and plans need to better reflect the locals' expectations. Some of the residents have lived in Väsby their entire lives and want to have more influence over what is planned. The municipality does organize meetings with presentations and discussions. However, the meetings are organized too late in the process. By then the municipality leadership has already developed a specific plan, which is presented to the public. Inputs are welcomed, however, the residents feel that they do not have much influence so late in the process. If the citizens could be involved earlier on the informant believes the plans would be implemented more efficiently due to local participation. The residents are most often negative towards the municipality's plans because

they have not been involved from the start. If they had, the negative reactions would probably decrease and plans could be implemented more efficiently. Another factor mentioned is that most of the local officials do not live in the municipality, which could make it difficult for them to connect with local residents. This potential gap in perspectives is an interesting point, which could have been furthered examined with a survey.

5.7 Reasons Behind Environmental Initiatives

5.7.1 Co-benefits

The interviews indicated that by investing in technological solutions and purchasing green energy, the municipality has improved the energy efficiency and made cost savings. It was however, mentioned by the Energy Controller that no monetary estimations have been conducted due to the difficulties of evaluating costs saved on one initiative as investments have been allocated elsewhere.

Respondents highlighted a great deal of unexpected co-benefits due to the implementation of the environmental management system. The Energy & Quality Controller shared that the municipality has gained a greater understanding of how the internal organization works because of the internal environmental audits performed. The audits have helped the officials identify weaknesses and provided the opportunity to educate or improve within those areas.

The Energy & Quality Controller also mentioned that the internal organization has gained a raised awareness regarding the environmental laws that affect the municipality. For example, this has helped improve the handling of chemicals and waste.

The Environmental Strategist noted that the environmental management system helped identify several shortcomings within the fire safety. The municipality had requirements prior to the system but it helped discover that they were not being met.

Another example of an unexpected benefit concerns the employee capabilities. In order to increase the understanding of the environmental management system all municipal employees were directed to take a web-based learning course. The Environmental Strategist described how this started a side process as it was discovered that several employees did not have adequate computer competencies. As a result of this, the municipality offered courses and workshops to help improve the computer competencies within the internal organization. It was further explained that this had a positive outcome as it helped improve the overall work efficiency within the municipality (Environmental Strategist, Office for Internal Support).

The interviews indicate that most co-benefits were unexpected and emerged from the implementation of the environmental management system. Because they have been unexpected, co-benefits have not been one of the reasons for the municipality to pursue sustainability initiatives. Therefore other reasons must have prevailed and this will be further discussed in the analysis section.

5.7.2 Capacities

An important part of a municipality's ability to govern and pursue environmental initiatives is its fiscal resources. Väsby has since its economic downturn recovered and maintained a stable economy. Several informants shared that when committing to the environmental certification and environmental management system funds were put aside to support the decision. It was explained that this helped ensure that the decision would be followed through. It was also mentioned that a local official who had previous experience working with environmental management systems first presented the idea. The Municipal Council later decided to drive the issue forward (The Municipal Executive Office, Society for Nature Conservation, the Green Party).

From the respondents accounts it has become clear that there was a strong political will behind the decision. The decision was, however, met by some questioning from residents and other parties because they could not see any or few direct improvements. It was explained that critics felt that the focus should be on visible improvements instead of focusing on management and structure. The Municipal Council was, however, determined to implement the management system and drove it through despite some criticisms (Environmental Strategist, Office for Internal Support). The informants working in the municipality also highlighted how the elected officials have been very supportive and committed throughout this journey. They have provided encouragement and always show interest to new ideas, which was appreciated by the informants.

The information highlighted from the respondents show how important municipal capacities are for pursuing environmental initiatives. The funding put aside for the environmental management systems played an important part in the implementation process. The strong political will also helped ensure that the work was continued despite criticisms. The environmental management system turned out to be a successful investment and it would not have been implemented without the internal capacities found within the municipality.

6. Analysis

This section will provide the reader with an analysis of the empirical observations. The analysis will connect the observations to the analytical foundations as well as discuss them in the broader context of sustainability science.

6.1 In-house Environmental Initiatives

The approaches that municipalities can take towards implementing environmental initiatives can vary substantially. From the empirical analysis it is apparent that Upplands Väsby has invested a great deal more to in-house than community initiatives. The certification and implementation of the environmental management system has benefitted the internal organization by providing structure and coherence. It has become easier to find weaknesses within the internal organization and measures have been taken to reduce their environmental impact. In-house initiatives are positive in the way that they help the internal organization lead by example. By thinking more sustainably within the internal organization they can clean their own house first.

In-house initiatives can also be an important way to promote sustainable attitudes. The environmental education promoted in schools and preschools can help influence future generations to act sustainably. The informants also mentioned that the municipality has had difficulty communicating their efforts outwards. The work conducted in schools could be an important outlet for reaching residents in Väsby. Through the kids involvement in school the parents could gain more information regarding the municipality's environmental work and provide valuable insights.

The in-house initiatives have been highlighted as important and essential, but basic. In-house initiatives are often viewed as easier to implement because of control and jurisdiction. However, the implementation process of the environmental management system has not been easy. It has helped alter the internal structure, which has taken time and commitment. The implementation highlights that the level of commitment is high and the municipality is willing to prioritize environmental sustainability. However, if you compare to the non-existent structure prior to the environmental management system it becomes clear that it was an essential investment. It was needed in order to enhance the structure and efficiency of Väsby's environmental work. The system has helped the municipality pursue their efforts towards environmental sustainability. However, they are still in a very early stage.

Even though the system helps ensure that the municipality improves concerns for the future still exist. Once the internal initiatives have reached a certain point the challenge of furthering environmental sustainability appears. With regards to energy efficiency, there comes a point when

all basic technological improvements have been made. It is then important that the municipality can find new ways to improve the energy efficiency or develop new ways to reduce energy use.

In-house initiatives are a good way to start working with environmental sustainability. They could also be important gateway policies that create the opportunity to implement broader community-wide initiatives.

6.2 Beyond In-house Sustainability

The municipality has received critique for not investing enough in community-wide initiatives. The municipality also acknowledges that more focus needs to be put on initiatives towards the community. Community-wide initiatives are important as they can reach a wider purpose and have higher impact. However, they drift across political boundaries adding hurdles to pursuing broad-based sustainable initiatives. For example issues such as water and public transport are planned and coordinated at a regional scale making them more complex to govern.

6.2.1 Drifting Across Political Boundaries

In the municipality's Traffic Plan (2013) it is clear that they want to improve the public transport system as the municipality is characterized by a high percentage of car users. The municipality has in recent years become an important junction for the regional transport as they connect Stockholm-Arlanda-Uppsala. The environmental benefits of improving the public transport system are many. It would reduce noise, GHG emissions and air pollution. The municipality wants to establish new bus routes as well as increase existing routes. However, public transport is not within the municipality's jurisdiction. It is a regional issues decided by the Stockholm County Council Traffic Administration. This fragmentation between levels impedes the actions that Upplands Väsby could take towards pursuing community-wide initiatives and decreasing GHG emissions. It is however, important that Väsby in coordination with neighboring municipalities cooperate with regional actors to pursue their interests. Because the E4 runs through the municipality creating difficult circumstances more efforts should be pursued from above to improve the public transport system and help the municipality reduce their own emissions. While they may be limited by what they can do, it would be worse if they did not care about doing anything at all. They should therefore try to find alliances with other municipalities to pressure the regional level.

The motorway and railroad also create barriers, which make it difficult to connect the outer and centre parts for pedestrians and cyclists. It is, however, necessary to further the cycling and pedestrian network. Since they have limited abilities to influence the public transport system

increased efforts need to be put towards improving the conditions for cycling and walking, which are issues the municipality does have control over.

6.2.2 Lakeside Väsby

The municipality has ambitions to transform the image and quality of the town and has embarked on a program of regeneration and renewal. This includes the provision of much needed housing. As described earlier, the municipality wants to establish a new neighborhood, Lakeside Väsby. However, this plan would encroach on valuable natural and cultural land, which many residents want to protect.

The need for new development versus nature preservation is a common conflict within sustainability science. The different views presented could be perceived as weak versus strong sustainability. Weak sustainability supports replacing natural resources as long as human capital is increased (Solow, 1993). The project would bring new residents and investments to the municipality overall strengthening the economy. It would also make the municipality a stronger competitor in the Stockholm region. Strong sustainability emphasizes the ecological scale over the economic gains. Nature has an intrinsic value and should be maintained for future generations (Baumgärtner & Quaas, 2009). The constant battle makes it difficult to find a balanced solution and persists to be one of the greatest challenges of sustainable development.

The future of Lakeside Väsby is still uncertain but most often the approach of weak sustainability is implemented because of the social and economic gains. If this does happen the municipality needs to work closer together with local residents to reduce the conflict. They need to collaboratively find a solution that is aligned with the officials' goals and the residents' opinions.

6.3 Civil Society Involvement

The most evident challenge highlighted by the Local Cultural Preservation Society is involving citizens earlier in the planning process. As mentioned earlier, local government is the level of governance closest to the people, which improve the opportunities to influence local policy making. However, if the residents feel that they are not adequately being included in the decision-making process the lack of local governance can hinder local policy making. It was mentioned earlier that residents are not adequately involved in the planning process. Because of this they often criticize the municipality's development plans. This creates frustration and back and forth discussion regarding the plan, which hinders it from being implemented. This was described as a common problem in Väsby, which can drag out the building-process for years.

It was suggested that if residents were involved earlier on in the planning process better solutions could be found as the residents views were taken under consideration. More involvement would also provide a better understanding of the benefits or consequences concerning a project. This would provide the residents with better information regarding the community development. It is important to establish a dialogue with the community so they feel that their views are being heard and that the municipality is developed according to both the officials and residents vision. The municipality does organize open meetings and forums to exchange ideas and gain the views of the residents. However, they were described to be more informative and not with the purpose of the residents influencing the project. It is therefore suggested that earlier involvement of the residents would make for a more effective government.

6.4 Co-benefits

Co-benefits have been described in the analytical foundations as an important reason for pursuing environmental sustainability. The most evident co-benefit described was cost savings. However, the interviews did not state cost savings as a primary reason for pursuing environmental sustainability.

6.4.1 Unexpected Co-benefits

The observations instead suggest that most co-benefits were unexpected. The co-benefits found in this study have all emerged from the implementation of the environmental management system. The system has helped identify weaknesses within the internal organization that have improved the overall efficiency and performance.

Overall the co-benefits have led to an improved understanding of the internal organization. Local officials as well as employees of public operations are able to learn from each other by exchanging information and ideas. This indicates that the environmental management system has helped influence greater communication and feedback. Communication among departments is very important because it can enhance collaboration and help achieve collective goals. The system prior to the management system seemed to be enclosed to each internal unit with little information of what was being done or shared with others. The environmental management system has helped increase the efficiency, understanding and communication of each unit, which has strengthened the internal organization and made it a more productive municipality.

The implementation of the system would not have been possible without essential municipal capacities. As mentioned earlier the strong political will from the elected officials helped drive the issue forward. The allocated funds also played a vital part by ensuring that it was actually implemented. Even though co-benefits have not been identified as an important reason for pursuing

environmental sustainability, they can still be seen as incentives for additional and continued work on environmental sustainability. Further, with a stronger internal organization the municipality has the potential to also improve community-wide initiatives.

6.5 Local Capacities

The capacities identified in the empirical analysis are fiscal health, personnel and leadership. In theory, municipalities have the same responsibilities and mandates with respect to the environment. However, differences in their capacities affect the commitments municipal governments are willing to take and the amount of environmental initiatives that they implement.

6.5.1 Fiscal Health

The allocation of funds for the environmental management system was an important part of it being implemented. As previously discussed it has since benefited the municipality by enhancing their environmental performance. As a result of this it is possible that the municipality has attracted new residents and investment contributing to the fiscal health.

As part of the municipality's vision they have focused on branding themselves as an entrepreneurial area to attract new business. Sustainability has been an important part as a lot of people value the environment. The ability to attract new residents and investment is an important political goal to reinvent the municipality. The environmental management system has therefore helped the municipality be perceived as a stronger competitor in the region. The award has also exposed the municipality to a lot of media and press, which enhances their brand and attracts more investment. Since the municipality has benefited from investing in environmental sustainability they should continue to do so. However, their efforts should be more focused towards community-wide initiatives.

With regards to environmental sustainability the municipalities in Sweden do not receive any additional funding for their environmental efforts, which could be impeding action for many. Upplands Väsby has made environmental sustainability a part of their brand and is using it as a tool to help attract investment. This investment could then be used to further their environmental initiatives.

The case of Väsby has highlighted that local leaders have set their minds in pursuing environmental initiatives, despite residents' resistance, and put aside funding for these issues. This argues for the need of not only having fiscal health to pursue sustainability initiatives, but also the right leadership to prioritize the issues.

6.5.2 Staff capabilities

As mentioned earlier, staff capabilities refers to the technical and administrative abilities of employees. In connection with the implementation of the environmental management system, the employees participated in various learning and training courses. It was noticed that a great deal of employees lacked essential computer competencies. Computer courses and additional workshops were therefore established to help improve the overall technical abilities.

It was mentioned in the interviews that new positions and groups related to sustainability had been formed within the organization. An environmental group has been established that oversees the overall internal environmental work. Employees have also been appointed as internal auditors to examine the different units to ensure that the environmental requirements are being met. Through these actions the personnel seem to be more involved with the internal environmental work increasing their personal engagement as well as the opportunity to encourage others.

The officials also expressed that they are surrounded by skilled and experienced employees. The interviews mentioned that innovation is encouraged and the municipality is open to working with new ideas. The municipality seems to be more professional in their work and in their abilities than prior to the implementation of the environmental system. The environmental management system has become a big part of the municipality and has involved all employees. The fact that the municipality has involved everyone has contributed to a better skilled staff. The dedication and work from local officials is what has made the environmental management system so successful. Their hard work ensures that the certification is upheld to the standards. The skills, commitment and attitudes of local officials are essential for the further development of Väsby's environmental performance.

One factor that may influence the ability to govern is that most of the officials do not live in the municipality. It was mentioned that most officials live outside of the municipality, which might make it difficult for them to relate to the residents. Even though the internal organization has the adequate technical and administrative capabilities they may lack a personal connection to the community. Because of this it may be difficult to establish a connection with the local residents, decreasing the level of governance in the community.

6.5.3. Institutional Capacity

The level of commitment and priorities set by local governments often depend on the issues in the municipality itself. The municipality is not only concerned with environmental sustainability and in most instances it has to compete with other issues and priorities for resources and political

attention. Most often officials have to struggle to keep environmental issues on the political agenda, securing necessary resources and at the same time continuously dealing with unsustainable thinking and practices within other parts of the administration.

However, in Väsby the environmental management system has made environmental sustainability a part of the daily routine. Through the informants it has become clear that the elected officials have highlighted the importance of environmental sustainability. Throughout the implementation of the environmental management system they have indicated through education and training that this is a collective goal. Because the officials have undergone this process together it has helped increase the institutions collective values, knowledge and relationships. The employees have collaboratively implemented the system with the support from the elected officials. With the system in place the municipality has shown that they have effectively and efficiently improved their environmental performance.

Another initiative that has helped improve the internal organization is the operational tool called Stratsys. It provides support for the entire municipality's planning and monitoring process. The tool gathers all regulatory documents in a single location and provides an overview of the municipality's goals, measures and activities within the various committees and offices (Environment & Quality Controller, Office for Internal Support). It provides the officials with a better overview of what measures are being implemented in the various departments and may provide a better understanding of how various departments understand environmental issues.

The municipality has highlighted the importance of networks and dialogues with other municipalities, businesses, residents and regional authorities. However, it is also important to illuminate the importance of exchanging ideas within the municipality itself. Coordinating and cooperating with other officials may lead to achieving common goals across departments.

6.5.4 Policy Entrepreneurs: Leadership

From the empirical observations it seems that Upplands Väsby leaders want to prioritize environmental issues. There is a general interest coming from higher management that encouraged the implementation of the environmental certification. The idea behind implementing the environmental management system came from a former official that had experience working with such systems. The official could be recognized as a policy entrepreneur as his influence had an important outcome for the municipality's sustainability agenda.

The elected officials furthered the idea of implementing the environmental management system and were committed to its implementation throughout the process. Even when it was met by criticism

the officials followed through knowing that in the end it would benefit the municipality. They have initiated courses and workshops concerning education and training and put pressure until all employees conducted them. The civil servants also consider the elected officials as committed and encouraging. Simply having an environmental certificate does not guarantee an effective environmental management system or positive outcomes. The organization has to look beyond the certificate and have an outspoken will to improve its environmental performance.

The level of commitment from elected officials is an important driver in pursuing environmental sustainability at a local level. The interest and attitude of elected officials determines what initiatives are driven forward. The internal initiatives also help promote more environmental conscious attitudes within the organization. Through training and education the employees have been able to integrate sustainable thinking into their daily routines. However, all employees have not embraced the concept of sustainability and more efforts need to be put towards improving attitudes and altering behavior.

6.6 Scrutinizing the Ranking

Even though the municipal ranking conducted by *Miljöaktuellt* has evolved since its start it still consists of a small survey focused on in-house initiatives. The questions regard simple yes and no answers. This does not provide the reader with a deeper understanding of the level of commitment and action behind them. If a municipality answers yes to having a climate plan with related goals it does not mean that the goals are being achieved. The questions are very basic not considering the wider initiatives and actions within the plans and goals. However, when considering sustainability, it is more likely that initiatives are limited to in-house activities, and no wider initiatives or actions are taking place at all. Even though in-house initiatives are a positive way to start more emphasis needs to be put on community initiatives. This is particularly important if Sweden is to achieve its environmental objectives.

Several respondents have stated the lack of deeper examination of the municipality's environmental work as the main reason for their minimal interest and acknowledgement of the award. Critique is given to the survey as well as *Miljöaktuellt* highlighting that any magazine can proclaim awards. Another hesitation to the award is that a lot of residents do not feel that it reflects the municipality's environmental work. On the other hand, local officials have expressed the difficulty in communicating their initiatives towards the community. An important impact of winning the award is that the dialogue has improved. The municipality believes that they are reaching out to more people and are able to consider their opinions regarding the environment.

It has been portrayed that Upplands Väsby has had a quick transformation moving from 167th to 1st place in four years. After researching the municipality it has become clear that this has been a long-term change. Since the early 2000s the municipality has focused on establishing a new image and bouncing back from their economic loss in the 1990s. Promoting sustainability has been an important part of its renewal and has been present in their decisions. The decision to become environmentally certified and implement an environmental management system helped improve the internal sustainability efforts. Since the ranking is mostly based on such efforts it is understandable that they won.

One of the questions concerned exploitation of agricultural land and if you answered yes you received -3 points. One informant highlighted that they answered yes to this question because of uncertainty. It is difficult to determine what good agricultural land is so they had answered yes (Environmental Strategist, Office for Internal Support). When answering surveys there is always a risk that people indicate some of the answers more on chance and misinterpretations than facts. There is also a risk that the answer reflects the vision and goals rather than the municipalities' actual achievements. However, in this case, answering yes to the question regarding exploitation of land indicates that they have thought through their answers and not simply answered no to receive more points. Further, most of the survey questions reflect Väsby's in-house initiatives. This indicates that they have implemented most of the initiatives in the survey. However, the survey does not take into account community-wide initiatives. Therefore it is only possible to state that they are the best municipality for in-house environmental achievements.

Even though the ranking doesn't contribute to describe the actual state of the environment in Swedish municipalities, it helps motivate municipalities to pursue sustainability and consider new efforts. Winning can put pressure on the municipality to continue to develop initiatives and highlight the importance of sustainability. However, it was suggested by a respondent that there is also a risk by awarding someone for being the best. This could lead municipalities to reduce their efforts or willingness to change because they have already won.

7. Conclusions

The most important in-house initiative was identified as the ISO certification and the implementation of the environmental management system. The system has helped create structure and coherence within the internal structure. It was identified as an important driver of reforms as it has helped identify areas of focus and improved the municipality's environmental performance. It was also described to be the reason for why Väsby won the award of Sweden's Most Environmentally Conscious Municipality in 2013.

After examining the municipal ranking it is concluded that it only focuses on in-house initiatives and does not provide a broader understanding of community-wide efforts. Therefore it is only possible to say that Väsby is the Most Environmentally Conscious Municipality for in-house achievements. The ranking was never a strong driver of environmental sustainability but it has allowed for the officials to better reach out to the community.

Previous research has shown that economic and co-benefits, internal capacities and environmental entrepreneurs are important drivers for pursuing environmental sustainability. In the case of Upplands Väsby economic and co-benefits were not identified to be drivers of change. The findings show that the co-benefits were unexpected and emerged from the implementation of the environmental management system. Even though co-benefits were not a main reason they could be an important driver for the municipality to continue to pursue environmental sustainability.

The idea to implement the environmental management system came from a local official who could be recognized as a policy entrepreneur as his influence had an important outcome. The identification of policy entrepreneurs has otherwise been low but the municipality has been found to be open to new ideas and initiatives so it is possible that they will emerge in the future.

The internal capacities identified are fiscal health, staff capabilities and leadership. Allocated funds and strong leadership were identified to be the main reasons behind implementing the environmental management system. The Municipal Council made a commitment to implement the system and even when met by criticism the officials followed through highlighting the importance of environmental issues. The staff has also been found to be skilled and experienced with an interest for sustainability influenced from the elected officials. The internal capacities have been identified as the strongest reasons for pursuing environmental sustainability.

Even though the municipality has implemented various in-house initiatives they still face several challenges. Critique has been given towards the award and how it does not reflect the municipality's

work. The environmental management system does not control community-wide initiatives and more focus needs to be on pursuing environmental sustainability outwards.

One major challenge is exploitation of land as the municipality has been criticized for wanting to build on valuable natural areas. Another challenge is enhancing local governance. Research has shown that involvement from civil society in the decision-making process can increase the political engagement and levels of acceptance of local policies. Residents have expressed that they are not adequately involved in the planning process and that local officials do not reflect their views. The municipality needs to enhance their dialogue with the community to make their governing and pursuit for environmental sustainability more efficient.

Even though Väsby still faces major challenges, the ISO certification has committed them to improve their environmental work. Hopefully, the municipality will continue on the path towards sustainability and encourage other municipalities to do the same. By highlighting the success and challenges of Väsby's environmental work they can improve within as well as inspire other municipalities to think globally, act locally.

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Appendices

Appendix A: The Swedish Environmental Objectives

Table 5. Presents the 16 Swedish Environmental Quality Objectives along with their aim (SEPA, 2005).

1. Reduced Climate Impact	Reduce concentrations of GHG in the atmosphere to prevent anthropogenic impacts.
2. Clean Air	Ensure clean air for humans, animals, plants and cultural assets.
3. Natural Acidification Only	Acidifying effects of deposition and land use must not exceed the limits tolerated by soil, water and corrosion of objects.
4. A Non-Toxic Environment	Man-made or extracted substances in the environment must not threaten humans or biological diversity.
5. A Protective Ozone Layer	Replenish the ozone layer to ensure protection against harmful UV radiation.
6. A Safe Radiation Environment	Protect humans and biological diversity against harmful effects of radiation.
7. Zero Eutrophication	Nutrient levels in soil and water must not affect humans, diversity or the use of land and water.
8. Flourishing Lakes and Streams	Keep lakes and streams ecologically sustainable, protect and preserve biological diversity and recreational values.
9. Good-Quality Groundwater	Maintain safe and sustainable drinking water and ensure viable habitats for flora and fauna.
10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos	Ensure a sustainable productive capacity and preserve biological diversity, recreational, natural and cultural assets.
11. Thriving Wetlands	Maintain the ecological and water-conserving function of wetlands.
12. Sustainable Forests	Protect forest for production, biological diversity, cultural and recreational values.
13. A Varied Agricultural Landscape	Protect the value of biological and food production and preserve biological diversity and cultural heritage.
14. A Magnificent Mountain Landscape	Preserve the biological diversity, recreational, natural and cultural values of mountain areas.
15. A Good Built Environment	Ensure a good, healthy living environment and protect natural and cultural assets.
16. A Rich Diversity of Plant and Animal Life	Preserve and sustainably use biological diversity for present and future generations.

Appendix B: Miljöaktuellt Parameters 2013

Survey conducted by Miljöaktuellt: The survey consists of 19 questions, with either yes or no answers. Questions 1-6 gives 1 point, 7-12, 1,5 points and 13-19, 2 points. If the municipality answered yes to question 20 that they have exploited land they receive -3 points. A new edition to the survey was that you had to complement your answers with documents to support your answers. The response rate for the survey was 96%.

Membership in cooperation's and networks: Provides a total of three points depending on number of memberships and stage of involvement. (ICLEI, CEMR, Fair Trade City, Millenium municipalities, Aalborg Convention, Eco-municipalities, Climate-municipalities, Covenant of Mayors).

The Water Authority: The water authority has compiled reported measures taken by municipalities to ensure good water status. A total of six points can be awarded depending on their measures and how far along they have come in their progress. The response rate was 78%.

The Swedish National Board of Housing, Building and Planning: A survey has been distributed to all municipalities in Sweden with the purpose of following up their work with the environmental quality objectives. *Miljöaktuellt* has chosen five questions from their survey from 2012 to complement their own. Each yes answer provides one point.

Eco-schools: An environmental management system for pre and elementary schools providing a green certification. Points are distributed for the total share of certified schools in the municipality.

Ecofoodcentre: A survey, which distributes the amount of points depending on the percent of organic food consumed in the municipality. The response rate was 63%.

The Association for Green Motorists: Conducted a survey that reflects the municipalities' actions for more sustainable motorists. Points are distributed in relation to how many points the municipality receives in their survey. The response rate was 50%.

Swedish Association of Local Authorities and Regions: The survey reflects companies' assessments of their experiences of working with local municipalities on various issues. The relevant parts of environment and health are calculated and municipalities receive points in relation to how much better they are than the municipality with the lowest score.

Kolada: The municipal and county database has distributed points in accordance to the municipality's percent of renewable electricity, energy and fuel as well as residual heat.

Appendix B.1: Miljöaktuellt's Survey 2013

Table 3. Presents the questions from *Miljöaktuellt's* survey 2013 with the answers of Upplands Väsby (Miljöaktuellt, 2013).

<p>1. Has the municipality adopted an environmental program, which is connected to the national environmental objectives? Answer: Yes (1 point)</p>
<p>2. Has the municipality adopted climate goals to reduce emissions from greenhouse gases? Answer: Yes (1 point)</p>
<p>3. Does the municipality have a policy to only buy or lease green cars in accordance to the latest green car definition? Answer: Yes (1 point)</p>
<p>4. Does the municipality conduct systematic work to improve and secure equality in the workforce? Answer: Yes (1 point)</p>
<p>5. Does the Specialized Committee in charge of monitoring and supervision of the environmental code have a plan for a three-year period? Answer: Yes (1 point)</p>
<p>6. Has the municipality regulated the air quality through measurement, model calculations or objective estimation on their own or in collaboration with other municipalities during the last three years? Answer: Yes (1 point)</p>
<p>7. Has the municipality integrated adaptation to climate change in a risk or vulnerability analysis? Answer: No</p>
<p>8. Does the municipality ensure that carbon emissions from publicly funded services (e.g. school buses, transportation services, good transport etc.) decrease by using economic instruments or requirements that are monitored? Answer: Yes (1,5 points)</p>
<p>9. Does the municipality enforce at least 25% stricter building regulations than Boverkets (The Swedish National Board of Housing, Building and Planning) building regulations for how much energy per square foot, which a new constructed public property can maximum use? Answer: Yes (1,5 points)</p>
<p>10. Does the municipality set routine environmental requirements in procurement and does the municipality examine the outcome so the requirement is met? Answer: Yes (1,5 points)</p>
<p>11. Does the municipality routinely enforce ethical and social requirements in procurement according to ISO 26000 (or other international equivalents such as guidelines from OECD or GRI)? Answer: Yes (1,5 points)</p>
<p>12. Has the municipality for the last three years worked with any environmental projects to improve the municipality's environmental status and contribute to achieve the environmental quality objective? Answer: Yes (2 points)</p>
<p>13. Has the municipality during the past year actively worked with informing the municipal employees and other personnel about their regulations (to prevent bribes and corruption)? Answer: Yes (2 points)</p>

<p>14. Does the municipality have a management system, which includes environmental aspects and encompasses at least half of the municipal organization? Answer: Yes (2 points)</p>
<p>15. Does the municipality have a strategy for using green IT? Answer. Yes (2 points)</p>
<p>16. Does the municipality support the development of carpools (for example by making their own cars available for renting)? Answer: Yes (2 points)</p>
<p>17. Does the municipality conduct impact assessments from a sustainable perspective to evaluate the effects a political decision has on different groups within the population? Answer: Yes (2 points)</p>
<p>18. Does the municipality or municipal companies work with sustainable projects where environmental questions are connected to economic and/or social aspects? Answer: Yes (2 points)</p>
<p>19a. Has the municipality or municipal organizations in the last three years exploited, or had good agricultural land be exploited? Answer: Yes (-3 points)</p> <p>b) Has the municipality or municipal operations during the last three years exploited or had green spaces be exploited in urban areas? Answer: Yes</p> <p>c) Has the municipality or municipal operations during the last three years exploited or had protected areas be exploited? Answer: No</p>

Appendix B.2: *Miljöaktuell*'s Survey and Parameters 2009

Table 4. Presents the questions from *Miljöaktuell*'s survey 2009 with the answers of Upplands Väsby (Backman, 2009).

1. Does the municipality have a climate strategy that has been updated in the past three years? Answer: No
2. Does the municipality have a municipal ecologist? Answer: No
3. Has the municipality invested in education in environmental issues of small businesses within the past three years? Answer: Yes
4. Has the municipality invested in local conservation, allocating resources for protection of biological diversity or establishing a nature reserve? Answer: Yes
5. Has the municipality established a wetland in the past two years? Answer: Yes
6. Has the municipality invested in developing cycle paths in the past two years? Answer: Yes
7. Has the municipality implemented an environmental management system within the internal organization? Answer: Yes
8. Do more than half of the schools serve organic or locally produced food? Answer: Yes

Other parameters 2009

The Swedish Society for Nature Conservation: A survey was conducted in 2007 where 209 out of 290 municipalities responded to questions concerning efforts to reduce emissions and adaptation to climate change.

The Association for Green Motorists: Examined the municipalities that voluntarily map their efforts towards sustainable motorists.

Cooperation's and networks: Membership in Climate-municipalities, Collaboration with the Swedish Energy Agency and Eco-municipalities provide points.

Appendix C: List of Informants

Table 6. Presents the name and occupation/organization of informants and the date and type of interview conducted.

Name	Occupation/Organization	Date	Type of Communication
Berglund, Åsa	Environment and Quality Controller	21/2-14	In Person Email
Bergh, Eva	Environmental Strategist	5/3-14 19/3-14	In Person
Nordmalm, Pelle	The Society for Nature Conservation	11/3-14	In Person
Frickner, Ann-Christin	The Municipal Executive Committee	13/3-14	In Person
Anna Åhr Evertsson	Environmental Planner	13/3-14	In Person
Jimmy Rudemyr	Energy Controller	18/3-14	In Person
Representative	The Green Party	16/4-14	Telephone
Representative	Local Cultural Preservation Society	28/4-14	Telephone
Journalist	<i>Miljöaktuellt</i>	6/5-14	Telephone

Appendix D: Interview Questions

Table 7. Presents the most frequent questions asked during the interviews.

What have been main environmental initiatives implemented?
What were the reasons behind the implementation of the environmental certification?
How did employees and residents react to the environmental management system?
How as the environmental management system benefitted the municipality?
How was the internal work prior to the system?
Why do you think it has worked so well?
What challenges does the municipality face?
What impact has the award had on the municipality?
How could the municipality further enhance their environmental performance?
What initiatives are lacking?
What are strengths within the municipality?
Does the award reflect the environmental performance of the municipality?
Why do you believe the municipality won the award?