
Translation of Sustainability into Public Procurement Practices in Swedish Municipalities

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Abstract

The purchasing power of the public sector could play a significant role in leveraging the market share of environmentally sound, or green products by increasing the level of environmental requirements in public contracts. By doing so, the public sector could set an example and act as an important “norm setter” towards a sustainable development. The legal room for incorporating environmental considerations into the procurement process has increased during the last years. However, the practical dimension of implementing green public procurement (GPP) policies is rarely specified.

Interestingly, the environmental performance potential of GPP, which is still to a large extent unreleased, builds on a combination of both policy- and market-based mechanisms. While environmental policies have been based on traditional “command-and-control” strategies, the underlying idea of GPP is to use regulatory policies in order to promote a green market, spur innovation and create incentives for continuous improvement of the environmental performance of private sector companies. Through “normative action”, public authorities might thus generate a shift industry-driven self-regulation of best environmental performance.

This thesis is an interpretative and explorative case study of best practice within three Swedish municipalities, focusing on opportunities and constraints in the municipal context. System Thinking is used as an analytical tool, supported by the Norm Model as a complementary conceptual and analytical tool. The latter is argued to be useful when analyzing “soft” system variables. The data has been collected through qualitative interviews with two directors and one training and education coordinator at the procurement departments which play an important role in providing framework agreements for purchasers throughout the municipality. Limited statistics on the transparency of environmental considerations in invitations to tenders is also presented.

It is argued that in order for sustainability policies – such as GPP – to be transferred into action (practice), normative elements such as knowledge and systemic conditions are necessary. Moreover, GPP will not likely be implemented without a firm will to do so. The presence of “green” norms in the municipal context is therefore essential for successful implementation. It seems like these depend on education and training of procurement staff, as well as access to and dissemination of adequate information. Furthermore, it seems like cooperation between different administrative areas and competences within the decentralized municipality, as well as networking with external organisations, further facilitates the translation of sustainability into day-to-day procurement practices.

Keywords: best environmental performance, best practice, environmental criteria, green public procurement, green purchasing, mental modelling, normative action, norms, norm model, sustainable development, system thinking

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“The continued poverty of the majority of the planet’s inhabitants and excessive consumption by the minority are the two major causes of environmental degradation. The present course is unsustainable and postponing action is no longer an option/.../ A tenfold reduction in resource consumption in the industrialized countries is a necessary long-term target if adequate resources are to be released for the needs of developing countries; resource consumption is a key driver of environmental degradation”

Global Environmental Outlook 2000, UNEP

Chapter 1 – Introduction

This chapter introduces the subject under study and explains on why it is a relevant issue from an environmental science perspective. Furthermore, the scope and the underlying objective of the thesis is defined, as well as the research questions.

1.1 Green Public Procurement; Setting the Norm

Large yearly investments are made within the European Union when purchasing goods, services and construction works. Public procurement encompasses approximately 16 per cent of EU’s total gross domestic product (GDP), which corresponds to half the GDP of Germany (European Commission, 2004). In Sweden alone, about 40 billion Euros are spent on public procurement (20% of GDP), of which 25 billion corresponds to municipalities (Miljö-Eko, 2004). The purchasing power of the public sector could thus play a significant role in leveraging the market share of environmentally sound, or green products by increasing the level of environmental requirements in public contracts. Green public procurement (GPP) might thus spur innovation of greener products and production methods in the market place, which might affect private consumption behaviours as well. In this sense the public sector could set an example and act as an important “norm setter” by influencing and challenging suppliers within the private sector towards the development of greener production and consumption patterns.

The Swedish Public Procurement Act (LOU), in force since 1994, and the new EU directives on public procurement 2004/17/EC and 2004/18/EC, provides the legal framework when local practices on green purchasing develop. Due to increasing support for environmental protection in the Community legislation, aimed at safeguarding a sustainable development, the legal room for incorporating environmental considerations into the procurement process has increased during the last couple of years. However, the process of putting theory into practice – the practical dimension of implementing GPP policies - is not often explicit in guiding political documents, nor is there only one adequate model for doing this.

Traditionally, economic criteria have been the major focus of procurement strategies for contractor selection. However, with a growing political and public demand for implementation of a sustainable development, other criteria than mere economic are being assessed in these strategies; criteria related to environmental, social and economic sustainability. From an environmental perspective it is therefore of interest to evaluate how public sector purchasers develop green procurement practices.

With the aim of improving the environmental performance of both public and private organizations, green public procurement might add not only ecological value but economic and social value as well, fulfilling the need of combining the three dimensions of sustainability. It is a potential factor of integrating environmental concerns into the sources of current environmental problems, i.e. the patterns of production and consumption of energy and other resources. As a concept, green public procurement has four valuable characteristics (Erdmenger, 2003):

- 1) It can be a tool to fulfil the objectives of public policy
- 2) It can influence (and be influenced by) market mechanisms
- 3) All stakeholders acknowledge its relevance
- 4) Many potential supporters of the concept form a sound basis for implementation

The underlying idea of GPP is then to implement regulatory policies in order to spur market-driven innovation and create incentives for continuous improvement of the environmental performance. This is to be achieved by means of voluntary measures and joint efforts between the business and the public sector. Interestingly, the environmental performance potential of GPP thus builds on a combination of both policy- and market-based mechanisms. With such a clear focus on the process of changing current consumption and production patterns, GPP is an interesting and relevant field of study from the perspective of applied environmental sciences.

1.2 Objective and Research Questions

In 2003 a joint research project was launched by the Department of Service Management at Chalmers University of Technology and the Sociology of Law Institute at Lund University. The project focuses on initiatives undertaken by professional public clients to develop models for handling other than price criteria when selecting contractors within the construction sector. Eight Swedish municipalities as well as two county councils have been selected for the research project. The chosen municipalities are Eskilstuna, Göteborg, Malmö, Stockholm, Sandviken, Uppsala, Varberg and Växjö. The two county councils consist of Västerbotten and Västra Götaland.¹

This thesis is an interpretative and explorative case study of best practice within three of the eight municipalities above, using System Thinking and Mental Modeling as an analytical tool, supported by the Norm Model as a complementary conceptual and analytical tool. Some basic statistics will be presented on invitations to tenders in the eight municipalities published during the last 12 months. The thesis is a case study of local procurement practice in itself. However, it could be used partly as a complement to the research project mentioned above, which is reason why this thesis has adopted the same selection of municipalities.

1.2.1 Thesis Objective

The objective of the thesis is to provide a general view of the current situation as regards green public procurement, focusing on opportunities and constraints in the municipal context from a best practice perspective. The focal point is therefore on the process of putting theory into action, i.e. implementing sustainability, for which successful ways of implementing GPP is of particular interest.

1.2.2 Research Questions

Green public procurement could be seen as a system containing a number of system components interacting within specific system boundaries. In order to understand how the different components behave and drive the system in certain directions – by creating so called “feedback loops” - the system contributors, and as well limiting factors, must be identified and analyzed. In so doing, the general underlying question is:

- How can public procurement entities increase the level of implementing environmental considerations into the purchasing activities in order to develop best practice towards a sustainable development?

Public procurement is a complex system encompassing different levels of action, or agency performed by various actors. This thesis is mainly focusing on the central procurement departments and the negotiation of framework contracts that guide – or at least could guide – individual purchasing decisions throughout the municipal organization. From this perspective, public procurement can be described as centrally negotiated legal processes which are guided by political decisions and practically implemented by various local purchasers. The procurement departments and the framework contracts thus create important guiding purchasing directives, and as such they are part of forming the purchasing norms at the municipal level. Best practice, as used here, simply refers to the level of successful

¹ The selection criteria were based on the volume of construction works, which was obtained through searches in the TED database (Tender’s Electronic Daily), the European official procurement database. For information on the project, see <http://www.mot.chalmers.se/staff/private/janbro/psc.htm>.

implementation. It is a relative and context dependent concept, meaning that what constitutes best practice in one case is not necessarily true for another case. However, it might be useful as a demonstrator of possible solutions. In this thesis, practice is seen as a dynamic process-oriented concept. One should not perceive of practice as a concept carved in stone, meaning that green practice is subject to continuous change.

To be able to answer the general abovementioned question in relation to the defined system, a set of more specific questions have been elaborated.

- First, how is environmental sustainability criteria assessed in the awarding of public contracts? Is there any difference as regards framework contracts and individual contracts in relation to the inclusion of environmental considerations? And to what extent are framework contracts guiding the purchasing activities?
- Second, what is the function of strategic tools and working methods in the “greening” of procurement practices? When practiced, what is for example the role of EMS, green procurement handbooks and guidelines, and eco-labels in the “greening” process?
- Third, when goods and services are subject to public purchasing one could assume that certain policies guide the executing departments within the city administration. Such policies, however, mostly comprise general guidelines for the individuals responsible for transforming decisions into local practice. Hence, other factors most likely come into play. What other driving forces can be found at the local authority level when green public procurement is to be implemented and developed towards best practice? One might ask, for instance, whether there is any link between the development of green public procurement practice and other environmental activities within a specific municipality; is it influenced by other local environmental efforts and initiatives such as the local Agenda21? As regards external influencing factors, such as national and international initiatives and networking with other municipalities, what is their role?

All of these factors could be seen as either constraints or possibilities influencing the patterns of actions – the norms - in or behind the local public procurement context. Consequently, a last set of questions were added to reflect the three dimensions of the Norm Model; *opportunities*, *knowledge*, and *will*². As knowledge is often seen as a prerequisite for action, it is relevant to ask whether priority is given to sustainability awareness and environmental education among officials at the procurement department as well as individual purchasers throughout the municipality. And if so, is it backed up by political support in terms of political priority and financial support given to the greening of procurement activities? And how are different competences within the municipality coordinated in order to meet the new challenges that green public procurement generate? Furthermore, are knowledge and political support the only prerequisites for action, or do other factors such as committed individuals, or “key actors”, play a significant role?

1.3 System Boundaries & Thesis Limitations

Green public procurement (GPP) encompasses several levels of agency, actors, and aspects, of which the environmental aspect is only one. As such, it therefore involves several system levels. At the municipal level, GPP is steered by both external factors outside the local context, mostly information (i.e. not physical units), and internal factors at the local level. International political decisions and principles on GPP, as well as international procurement legislation trickle down to the local political level via national decisions and guidelines. The latter is based on internationally agreed principles and the existing legal framework on public procurement. Together, the actions at the different system levels (international, national, local) form the input for the public procurement system at the local level. However, the implementation of the political decisions is determined within the local context, where

² The Norm Model is presented more closely in chapter 2.

opportunities and constraints as well as prevalent norms ultimately determine the success of the GPP implementation process.

As regards involved stakeholders, the local GPP system encompasses the local authority organization, including its employees and working methods, which interact with different suppliers in the marketplace through negotiation of contracts and purchasing of different supplies and services. The procurement process also involves the local political administration, at least the various decisions to be executed by the executive bodies within the public administration. Indirectly, the local citizens are involved through the expenditure of tax revenues with the aim of fulfilling public needs.

As regards the output, or impact, of our local actions, these have both local and global significance. The way we act today depend on our needs and will affect the needs and actions of tomorrow, as well as the possibilities for future generations to fulfill their needs. Our local patterns of consumption and production have global reach. This is best illustrated by the recognition that environmental problems are distributed in time and space (Miller, 2003; Robért 2001). While the rather abstract environmental impacts of consumption patterns might take many years to identify, the economic and thus also social impacts are more easily measurable and lie closer in time. The GPP system is thus operating both in a long term and short term perspective on a “glocal” scale, aimed at making resource and energy use more efficient and sustainable by local actions. The figure below is illustrating the many stakeholders and aspects of public procurement that must be taken into consideration.

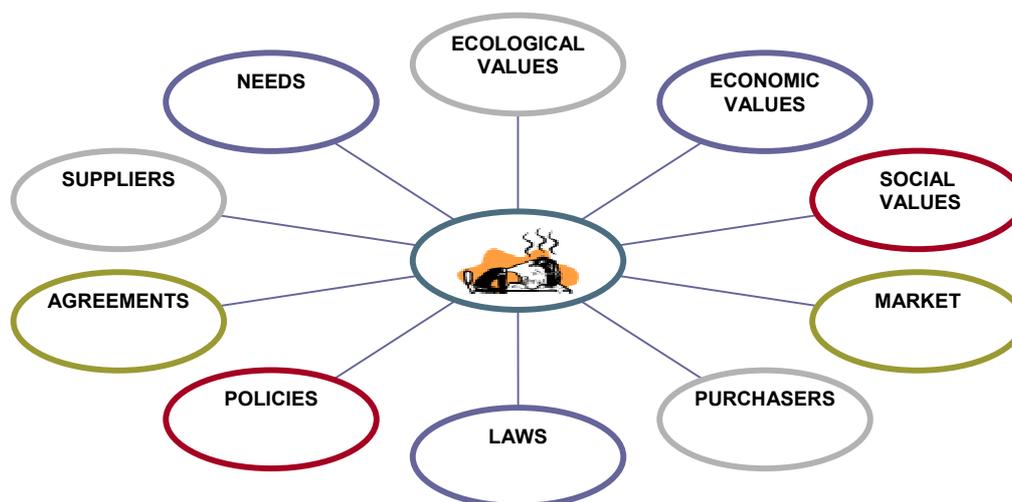


Figure 1: Important aspects of public procurement (idea borrowed from Frenander & Nohrstedt, AB Svenska Miljöstyrningsrådet).

As the objective of the thesis is to provide a general view of the green public procurement situation, specific details on the different kinds of environmental criteria in various product groups are not of major concern. Neither is the inclusion of social considerations in the procurement process specifically addressed. However, it should be acknowledged that public procurement is a potential instrument of integrating socially and economically sustainable considerations into purchasing activities, such as gender and ethnic equality, prevention of child labor and economic crimes, and stimulating social employment programmes. These types of sustainability considerations are increasingly being considered. In this thesis, the social benefits of public procurement are primarily seen as indirect positive effects from economic savings and environmental improvements. Furthermore, by primarily focusing on the public sector, descriptions of private sector companies and private consumers are limited.

Chapter 2 – Method, Analytical Tools and Material

This chapter presents and discusses System Thinking, or Mental Modelling as a method and analytical tool. Furthermore, it describes the Norm Model as a useful complementary tool when working with

systems characterized mainly by “soft variables”. After the introduction of the tools, the methods for collecting data and empirical materials are explained.

2.1 System Thinking & Mental Modelling

Models are sometimes helpful to organize thoughts, ideas, and knowledge. They provide an assisting tool in the research process when developing an understanding of a field under study. “System Thinking is a common concept for understanding how causal relationships and feedbacks work in an everyday problem” (Haraldsson, 2004). System thinking enables us to identify, analyze, and explain complex problems and understand why a certain system – for example green public procurement in local authorities – moves in a certain way or direction. It helps us describe the dynamic inherent in the system.

A system consists of interrelated components forming a complex unity. The individual components can be either physical objects, or intangible objects, such as information flow, processes, policies, personal relationships, values and beliefs (Anderson & Johnson, 1997). Human-made systems can be distinguished from natural systems. However, both are interconnected and thus inseparable. From a system perspective, it is thus important to remember that all activities in human-made socio-economic systems generate changes in natural, or ecological systems. Yet importantly, by focusing on how resources are used and distributed as a consequence of our lifestyles and perceived needs, we might better understand the central role that resources play within systems encompassing the dimension human-nature-society. From a sustainable development perspective, *resource thinking* is essential (Hansson, 2004).

System thinking is based on a holistic perspective, seeking to avoid traditional disciplinary barriers. In stead, I would argue, it recognizes the need for cross-boundary thinking; a necessary perspective when dealing with complex issues such as sustainability problems characterized by relating to the economic, ecological, and social aspects of development. The first time sustainable development was addressed and issued by the international community, was at the UNCED³ in Rio 1992. Since then the concept has gained widespread international acceptance within the realms of both science and politics, where it has been urged for a paradigmatic shift in ways of thinking. A holistic approach is a way of dealing with complexity in order to develop an understanding on how to over-bridge the differences between various disciplinary cultures and foster a thinking of logics (Hansson, 2004).

System Thinking is sometimes referred to as Mental Modelling, which is a mapping of the understanding of a complex problem in order to make it visible for others by using causal loop diagrams (CLD’s). Through the mapping – and continuous remapping – we can learn about “organisational structures in systems and create insights into the organisation of causalities /.../ taking a problem apart and reassembling it in order to understand its components and feedback relationships” (Haraldsson, 2004). Mental Modelling is thus a continuous process of understanding a certain system and its behaviour.

³ UNCED – United Nations Conference on Environment and Development

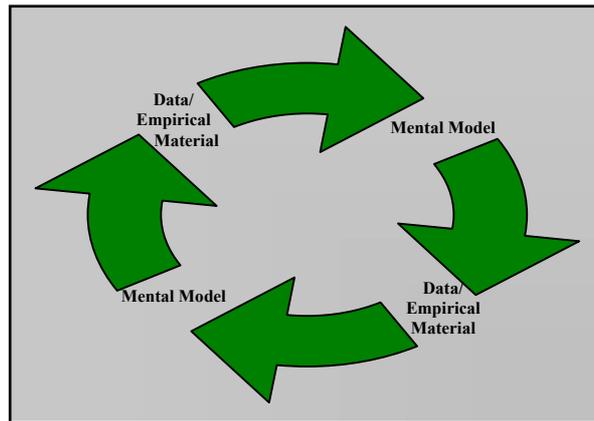


Figure 2: The continuous process of Mental Modelling.

By creating causal loop diagrams, we can provide a starting point for discussion and understanding of how we perceive problems differently. The method is in that sense transparent as regards the subjective elements that are always, I would argue, part of our descriptions of the reality.

It is important, however, to keep in mind that no system is constant over time; there is no such thing as system equilibrium. Any system always seeks to maintain its stability through fluctuations and adjustments (Anderson & Johnson, 1997). As human and natural systems change continuously over time, a new model is required for each new question we ask in order to understand the behaviour of a certain system.

An important concept when using System Thinking is thus the concept of feedback, i.e. any action causing a reaction somewhere else in the system, which is reason why complex systems are dynamic and change over time. As Anderson & Johnson (1997) puts it, “feedback is the transmission and return of information”. It is important to remember that feedback provides “the catalyst for a change in behaviour” (ibid).

Non-dynamic, or linear, perceptions of reality tend to exclude the time variations. As Haraldsson (2004, p.10) points out, “The most important issue about the feedback perspective...is the suggestion that *everyone shares responsibility for problems generated by a system*”. It is rather useless to look for “sinners” and single factors responsible for a problem. Such behaviour is not appropriate if we are to generate systemic changes in pursue of a sustainable development, where joint efforts of all contributing actors and factors are equally important. A system has no end in itself; we create them and we change them in accordance with current needs, interests, values and beliefs. It is thus important to see the whole system as the result of the relationship between several interconnected components that together generate a dynamic behaviour.

In order to understand how feedbacks cause behaviours, it is also important to define and explain the boundaries of the system under study. The internal structure of the system is the determinant factor for it to develop successfully.

Mental Modelling is associated with two other concepts, System Analysis and System Dynamic, which can be described as the practical applications of System Thinking, i.e. testing of the model, for instance by using computer based programmes (such as STELLA), to see how the dynamic of the system changes with varying input of numerical values. This secondary application of the model is however not included within the scope of this thesis.

When developing a basic understanding of relevant aspects in order to define the system and the related problems, I used secondary sources such as literature, articles, surveys, and information available through official web pages of various organisations and networks in the green procurement field. In this first phase, I also used some primary source material obtained through a procurement

database in order to analyze the situation in the chosen municipalities as regards the use of environmental criteria. This initial collection of statistical data was performed with an explorative approach with the primary aim of “getting in” to the field under study. The main aim of this first phase was thus to achieve a better understanding of the system in order to formulate different questions for the qualitative interviews; both to specify the main question and to develop the sub-questions relating to the different aspects of the system being defined.

2.2 The Norm Model; a Complementary Analytical Tool

In the defined green public procurement (GPP) system, most of the components are so called “soft” and sometimes intangible variables; socially determined factors inherent in human (socio-economic) systems and formed by human agency. In - or behind - most kinds of human agency we can come across different norms. If we are interested in knowing how norms allow - or hinder – the greening of procurement practices, we can define norms in terms of three normative elements or dimensions; will, knowledge, and opportunities (Hydén, 2002). These three dimensions reflect the underlying values, the cognitive aspects, and the systemic conditions that interact to a varying degree in the formation of norms, which guide us in different day-to-day situations. More concretely, the way a procurement official act in a given moment is not solely depending on cognitive aspects (knowledge), for example knowing how to act in accordance with procurement legislation. His or her action is also depending on certain values (individual or collective) as well as structural system conditions that either support or hinder certain action patterns. Hydén argues that norms could be viewed as “*guiding action directives* generated within different action-oriented systems” (Hydén, 2002, p.270, my trans).

In human systems, norms are both carriers of information and components, or hidden directives, that generate a function (action) when coordinated under certain contextual conditions. They can therefore be studied empirically as constituents of “potential agency” (Hydén, 2002, p.268) to help us understand why certain patterns of action arise, or do not arise. Norms, as guiding action directives, are therefore relevant in relation to the GPP system, which is largely dependent on human agency. This is reason why the Norm Model (Hydén, 2002) is useful as a complementary tool in the process of modelling and understanding social systems that are interacting with natural systems. Further stressing this connection is the fact that the two analytical tools – Mental Modelling and the Norm Model - have one important aspect in common, namely the aim of finding more or less hidden factors driving certain behaviour, or action, in a specific context. The figure below is a simplified version of the Norm Model developed by and used at the Sociology of Law Institute at Lund University.

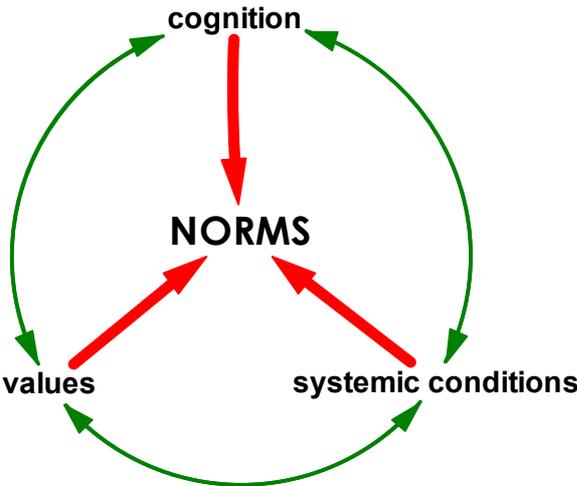


Figure 3: The Norm Model and its three normative elements that converge in the formation of societal norms.

2.3 Collection of Quantitative Data through the Allego Procurement Database

The purpose of the initial research phase was to collect not only relevant secondary sources (literature and articles), but also some basic statistics on the current situation on green procurement in the chosen municipalities by making free-text searches in Allegos' procurement database. The idea was to use the obtained data to select which of the municipalities to follow up with interviews. The line of reasoning was that the obtained statistics could be seen as an expression of current practices as regards the use of environmental considerations in tender documents. The data collected on each of the eight municipalities was based on the following search criteria:

1. invitation to tenders on all goods and services (construction works excluded)
2. above the threshold values, i.e. large purchases
3. published and terminated during the last 12 months (between June 2003 and June 2004)
4. containing the word environment*⁴

The number of invitations to tenders within the scope of the selected search criteria was then compared to the total number of calls for tenders during the same time. This would generate a percentage of calls for tenders including any form of the word "environment" ("miljö" in Swedish).

The collection of data took place during one month's time through the free of charge subscription of the Swedish Tender's Journal (Anbudsjournalen) and by searching Allego's electronic procurement database Ajour⁵.

In retrospective, this initial phase worked as a point of departure rather than as a method for further selection. There are several reasons for this. First, the database turned out to be insufficient in order to get the desired data on my own. Through the open minds and good will of the Allego staff, it was however possible to compensate for this inconvenience. Second, because of this, the method became more time consuming than what was initially planned for, which forced me to look for another strategy for selecting municipalities to follow up on. Third, I started to realize that the collected data had a limited validity as regarded the underlying objective, namely to analyze the situation as regards the use of environmental criteria in tender documents. This is explained by the fact that environmental criteria do not necessarily have to be included in the invitation to tenders although they are part of the complete tender document. To analyze each individual tender document would require a substantial amount of time, which has been pointed out by Kippo-Edlund et al in a recent survey yet to be published. The method I applied was thus rather reflecting the *transparency* of environmental criteria, and not the actual *use* of them. As such, it is however still interesting to some extent.

2.4 Qualitative Interviews with Procurement Departments in Swedish municipalities

After the initial collection of data on invitation to tenders, qualitative semi-structured interviews were conducted with some of the selected municipalities. As the procurement departments negotiate framework agreements used in almost all purchasing activities by individual purchasers throughout the local authority departments, it has a significant impact as regards the normative patterns of purchasing. Since the purpose was to identify the main driving forces and barriers towards green procurement from a municipal perspective, I decided to allocate green procurement coordinators who could provide an overview of the purchasing activities within each of the chosen municipalities. However, this was only possible in the case of Göteborg. The lack of such a job position in Växjö and Malmö made me decide on directors of the procurement departments instead. I assumed that they were capable of providing an overview of the procurement practices. In the case of Göteborg, the respondent is

⁴ environment* as in environmental considerations, environmental criteria, environmental demands, environmental requirements, environmental label/-s/-ing, environmental management system, environmental policy, etc.

⁵ For further information see <http://www.ajour.se/index.shtml>

responsible for coordinating the procurement education and information activities, which might be a bias in comparison to the other respondents. However, the fact that the respondent have been working within the procurement company for more than two decades might be reason why that person could provide a qualified overview and thus is responsible for communicating the work being done in the green public procurement field in Göteborg. From a qualitative perspective this fact could rather be seen as an interesting and useful source of information and knowledge.

The selection criteria I used when choosing municipalities, was the green procurement efforts performed so far within the procurement departments of the different municipalities, which would then reflect the level of practice in the GPP field. I looked at parameters such as commitment in national and international green procurement networks, sharing of good examples and projects, or similar attention given to the issue by the municipality. The selection was based on the following information, obtained through secondary sources such as research reports and official web pages of procurement organisations and municipalities (visited during June-August 2004):

- **Göteborg:** One of the founders of ICLEI's 'Buy it Green'-Network for Sustainable Procurement Professionals in Europe⁶. Chairman of the network in 2003. Involved in the ongoing LEAP-project⁷. ICLEI member⁸. Signed the Aalborg+10 declaration, aiming at continuous implementation of Agenda21 through cooperation with other European cities and municipalities⁹. Member of the Nordic Network for Green Procurement. The EU Commission considered the "Göteborg Model" a case of good environmental practice to be presented at the World Expo in Hannover 2000. Involved in the delegation responsible for developing the EKV-tool.
- **Malmö:** one of six pioneer cities of the European research project on green procurement, RELIEF (2001-2003)¹⁰. Signed the Aalborg Charter (1994) and joined "Sustainable Cities", the European Sustainable Cities and Towns Campaign. Recently signed the Aalborg+10 Declaration; one of the aims being to reach more sustainable consumption and production patterns. ICLEI member. Member of the Nordic Network for Green Procurement.
- **Växjö:** participant of "The Challenging Municipalities" (Utmanarkommunerna) (1998-2000), a project initiated together with the Swedish Society for Nature Conservation with the aim of creating a role model of municipal sustainable development to be presented as best practice to other municipalities¹¹. Participant of the ongoing European *eco*BUDGET Pilot Project for local environmental budgeting¹². Signed the Aalborg+10 Declaration. ICLEI member.

The review of secondary sources influenced me towards the presumption that, out of the three cases, Göteborg seemed to provide the most advanced example as regards experience in the field of green public procurement. They demonstrate their current efforts, as well as cumulative knowledge regarding GPP, via easily accessible documents and explicit descriptions of the Göteborg model that communicates the experiences done so far. In this sense, I already to some extent considered Göteborg to be a case of best practice before doing the interviews. From an analytical point of view, I therefore thought it would be interesting to investigate whether opportunities and constraints in that specific context would differ from the other two cases. Would successful factors and opportunities in Göteborg occur as perceived hurdles in Växjö and Malmö?

⁶ See <http://www.iclei-europe.org/index.php?id=677>

⁷ See <http://www.iclei-europe.org/?leap>

⁸ See http://www.iclei-europe.org/index.php?iclei_europe_home

⁹ See <http://www.aalborgplus10.dk>

¹⁰ See <http://www.iclei.org/procurement/relief/>

¹¹ See <http://www.vaxjo.se/english/sustainable.html#ecobudget>

¹² See <http://www.ecobudget.com/emp/envbud.html>

The respondents were contacted by telephone, informed about the purpose of the thesis, and asked to be interviewed. After having accepted, they were sent a brief introduction on the thesis together with the questions in order to be prepared in advance and thus make the most out of the interview occasion. They were asked if they wanted to be referred to as anonymous sources of information. The research interviews have been guided by three important ethical principles; informed consent, confidentiality, and anonymity (Kvale, 1997, p.107).

2.4.1 Qualitative Interviews as a Research Method

The aim of this study has been to map the chosen field of research, but also to make comparisons between the three municipalities and their different patterns of action. The character of the interviews is therefore explorative while simultaneously structured through defined research questions categorized under different aspects of the procurement process. The purpose with the explorative study is to “discover new dimensions within the field or subject which is being studied” (Kvale, 1997; pp.96-97, my trans).

By analyzing the empirical material it is possible to discover certain thematic patterns which comprise the components and conditions which are integral parts of and affect the system under study by creating feedback loops. These themes, so to speak, are key in grasping the whole perspective. The aim of the analysis is thus to frame and extract the perceptions, meanings, and themes which are essential to answer the questions, and present and illustrate them in relation to the system, by using causal loop diagrams (CLD's). The analysis is based on an ad-hoc hermeneutical method, which means that the researcher constantly moves between, and synthesizes, the meaning of the total and the meaning of the detailed.

Conversations, as such, can take place in a number of ways and with various purposes. However, they are mostly characterized by being a situation of human interaction in which experiences and knowledge are communicated and exchanged in order to reach a new level of understanding and meaning. We learn from each other through conversations, through which we can exchange existing knowledge and as well extract previously unmentioned aspects and issues.

As a research method, the qualitative research interview has been criticized for being insufficient as regards scientific relevance, objectivity and quantity. However, in the wordings of Kvale (1997, p.17, my trans) “the purpose of qualitative research is not to quantify objective data, but rather to interpret meaningful relations”. Knowledge, in this case, is not only the result of a series of external observations, but arises as a consequence of a deeper understanding for the individuals and their relation to the living world being studied. The qualitative point of departure offers an alternative to the positivistic perspectives, which have characterized the scientific society for a long period.

Regarding the research interview, one could speak of the three contexts of conversation. *Methodologically*, the interview can be seen as a way of generating knowledge through a professional conversation technique in which the respondent and the interviewer mutually give and take. *Epistemologically*, conversations can be viewed as the basis for obtaining new knowledge. This cognitive view is based on the condition that we see knowledge as something being formed in the meeting between people – not as a kind of real representation or objective truth existing outside the human sphere. Conversations, and therefore knowledge, take place between humans, and not with non-human elements of reality. *Ontologically*, the reality we are part of can be seen as interactions between humans for which communication is an essential prerequisite in perceiving reality. Conversations are not only part of the reality we live, but also constitute the very conditions for it, seen from a human perspective (Kvale, 1997, p.40). The interconnectedness between natural and human systems is also part of the ontological reality. However, from a conversation and communication perspective, this is less relevant as we are not communicating *with* the environment, but rather *about* it.

Even though the conversation in an interview situation might have the most colloquial character, the roles of the interviewer and the interviewee are clearly divided regarding who is asking the questions and who is responding them. This is because the interview has a clear purpose, which in turn might affect the spontaneous character of the conversation. Nonetheless, unexpected answers might generate new questions that would not appear otherwise. Hence, a well prepared and conscious interview situation does not necessarily lead to a qualitative deterioration of the conversation and its content.

The qualitative research interview - the method I believe fits well with the objective of this thesis – is defined as “an interview with intention to collect descriptions of the respondents’ living world in order to interpret the meaning of the described phenomena” (Kvale, 1997, p.13, my trans). The mutual interest for the subject can generate valuable knowledge through communicating it. At the same time, one should not forget the asymmetry of power between interviewer and respondent that might affect the outcome. Hence, it is important to keep in mind throughout the interview, that the two persons affect one another both emotionally and on a cognitive level.

As a research method, the interview comprises an act of balance between the structured and the unstructured in order to collect as open descriptions of the subject under study as possible; “an observant interviewer is critically aware of the conditions under which he (or she) operates” (Kvale, 1997, p.37, my trans). Just as important is the ability to engage in the world of the interviewee, in order to understand what is said and the various nuances in which it might be embedded. As an interviewer, you must continue asking questions until you are satisfied. “Do not *think* you understand until you *know* that you understand” (Trost, 1997, p.86, my trans). One simply has to live by the rule that there are no silly questions.

2.4.2 Research and Hermeneutics

“Hermeneutics study the interpretations of texts and its purpose is to gain a valid and common understanding of the meaning of a text” (Kvale, 1997, p.50, my trans). The hermeneutical principle is present in two phases of the research interview, during the very interview and during the interpretation of it. When interpreting you move between the meanings of the individual parts in relation to the meaning of the whole, where both might change as the result of adding new interpretations. The individual parts and the total mutually affect each other, which results in a deeper understanding of the interconnections. This is to follow the hermeneutical circle. Qualitative research interviews involve both the creative and interpretative phase, and hence the researcher is part of the text to be analyzed. One of the principles behind hermeneutics addresses this particular aspect; an interpretation of a text can never be free from subjective elements. The interpreter is influenced by the existing conceptual traditions, as well as the individual experiences, and both of these factors have an impact on the work (Kvale, 1997).

2.5 Relevant Surveys on Green Public Procurement

Green procurement has been on the political agenda in the industrialized countries since the beginning of the 1990’ies. Not until recently, the outcome of the first ten years of pilot projects and exchange of national experiences has been studied and analyzed, mainly within the framework of ICLEI (International Council for Local Environmental Initiatives) and its current thematic programme European Eco-Procurement Initiative. Two campaigns on the exchange on sustainable procurement are run under the auspices of ICLEI: 1) BIG-Net, the “Buy it Green-Network” of municipal purchasers from around Europe, and 2) Procura+ Campaign, which was launched in January 2004, as a practical result of the terminated RELIEF¹³ project, to foster implementation of sustainable procurement throughout Europe. First, surveys on GPP in EU will be presented, followed by the situation in Nordic countries, and Sweden in specific.

¹³ Environmental relief potential of urban action on avoidance and detoxification of waste streams through green procurement

2.5.1 Green Public Procurement; the Situation in Europe

The report “The World Buys Green” (Erdmenger et al, 2001), an international survey on National Green Procurement Practices, performed under ICLEI’s European Eco-Procurement Programme and Eco-efficient Economy (ICLEI EPP), was part of the initiation of the RELIEF project. The aim of the survey was to assess the experiences in the countries known for green purchasing activities. The countries included in the survey are Austria, Denmark, The Netherlands, and Sweden. The survey was complemented with studies made in Hungary, Japan, and USA.

The survey concludes that there is no common approach to green purchasing yet in Europe. The recognition of green procurement as an instrument towards sustainability coincided with the introduction of national eco-label systems, such as the “Nordic Swan”. In recent years a number of green purchasing institutions have been developed, for example the Swedish EKV delegation, in order to provide support programmes and guidelines for purchasing entities. As regards the initiation of green procurement at the national level, two approaches can be distinguished in general. First, the integration of an obligation of green procurement into national (procurement or environmental) law (Austria and Germany), which has turned out rather unsuccessful; and second, the obligation of public authorities to set up a green purchasing policy (Denmark) or action-plan for green procurement initiated by the central government. The different national experiences assessed in the survey, indicated that laws, per se, are not enough for a successful implementation of green procurement. Having public departments and institutions to set up their own policies and monitor their achievements through voluntary measures would seem more promising in the long term. Hence, if the green procurement process is to be driven not mainly by a top-down perspective, e.g. laws and regulations, it is necessary to ask the following: what driving forces are important if green purchasing is to be achieved through voluntary measures? What other conditions must be met in the local authority context for green procurement to successfully achieve its potential?

According to the same survey (Erdmenger et al, 2001), the most crucial points with reference to practice are appropriate training and education, easily accessible information, and exchanging of experience through networks. The importance of education is also addressed in the Swedish Government Official Investigation “Green Indicators – follow the ecological transformation” (SOU 1999:27, my trans.), where environmental education within public procurement entities is seen as the key driver towards more sustainable patterns of purchasing. In other words, this means that certain competences as well as strategic methods for communication and education are key prerequisites for the development of “good”, or “best” practice in the field of green public purchasing.

The effects of green procurement are difficult to measure (Erdmenger et al, 2001). No accounting system is available, nor knowledge about the effects of, or actual impact of green procurement on both the environment and the market. Generally, there is a lack of reliable data to calculate the potential environmental relief, which makes it difficult to provide decision makers with relevant data and thereby create motivation and political commitment. As local governments are key factors when translating principles for sustainable development into local practices, and thereby leverage the potential of influencing the market through the purchasing power of the public sector, this is particularly problematic. However, the lack of dissemination of information constitutes a barrier to green procurement not only in that aspect. As regards documentation on specific products and suppliers, the lack of adequate information and reliable data might also constitute a hurdle.

The EU-research project RELIEF resulted in another survey, “Results of the ‘Buy it Green’-Network of Municipal Purchasers (BIG-Net) Survey” (Dozzi, 2002). A questionnaire was sent to 51 BiG-Net participants to survey the development of green public procurement. 26 answers were received. According to the survey, it does not seem that the size of the municipality is relevant to the commitment in green public purchasing. Other factors might be more relevant. More than two thirds of the respondents perceived green public procurement as a stimulator of improvement and innovation towards environmentally sound products and services. As regards factors influencing green public procurement, these were ranked in the following order of importance by the respondents:

- | | |
|------------------------------------------------------------|---------------------------------------|
| 1) political commitment | 4) availability of green alternatives |
| 2) public awareness | 5) transparency of legal rules |
| 3) availability of information on green goods and services | 6) privatisation/marketisation |

The individual official purchaser was considered the most important stakeholder in determining the level of green public procurement; 25 times under 26 answers these were chosen either at the first or second rank. However, the reported importance of committed politicians as a major factor of influence, stress the fact that will and awareness at both the political level *and* at the executive level is necessary for achieving positive results. This is pointing to the need for communication and cooperation; a factor that is also important as regards the different executive departments within the city administration, and their respective fields of competencies with relevance to the implementation of green procurement.

The respondents of the survey expressed views on Environmental Management Systems (EMS) and standardisation/certificates (such as ISO and EMAS) as viable methods for improving the state of play of purchasing activities. This could be seen as recognition of the potential of systematic environmental assessments concerning GPP, and might be explained by the fact that respondents have started to gain experience in the green procurement field.

Last year, the report “Study contract to survey the state of play of green public procurement in the EU” (Erdmenger & Ochoa, 2003), was published under ICLEI’s Eco-Procurement Programme. One of the findings of the survey is a high level of commitment to green procurement in Sweden and Denmark. The share of administrations including environmental criteria for more than 50% of their purchases was 50% and 40% respectively. The EU average figure was 19%. Germany, Austria, and the United Kingdom also performed above the EU average. In authorities with less efforts in the field of green procurement, the lack of environmental know-how in developing green criteria was identified as the most significant barrier. However, in authorities doing better, the lack of money was the major hurdle. Lack of interest and legality concerns, which has been identified as hurdles in other surveys, was perceived as an obstacle only by some 20% of the respondents.

As regards options on supporting measures, access to handbooks and written material and an on-line green procurement database were ranked high by the respondents, which is illustrating the need for those tools being developed at present by the Commission.

A second section of the survey focused on the actual product criteria applied (in administrations and departments already actively applying green criteria) for ten products commonly procured with environmental considerations. The result showed that there are large variances between different countries and the use of green criteria for different product groups. As regards the link between an EMS in place and greener procurement practices, no strong evidence was found. In 50% of the respondents a policy is in place, formalising the commitment to green procurement.

A general tendency as regards the level of green public purchasing as well as the use of eco-labels, is a clear North-South divide in Europe. This is also demonstrated by the fact that authorities in more environmentally conscious countries were much more responsive to the survey. The reported deficiency of green procurement policy documents in a majority of southern European countries (Spain, Italy, Greece), might be a decisive factor worth stressing, pointing to the relevance of political support for the greening of procurement practices.

The RELIEF project, which was co-ordinated by ICLEI between 2001 and 2003, brought together seven research institutes and six local authorities from across Europe, and resulted in several important studies and findings. In “Eco-Procurement – the path to a greener market place” (ICLEI, 2003) green procurement is explained as being not just a “symbolic activity with marginal effects in practice, but can have a significant impact in different areas”. Switching to organic food in public purchasing of

canteens and catering would for example compensate the nitrification impact on European soils and waters of some 3,5 million inhabitants, and thus significantly contribute to the achievement of the environmental targets of the European Union. The increased demand for green products through green public procurement might help leverage the suppliers' competitiveness on the private market, and could thus assist in changing consumer behaviours.

2.5.2 Green Public Procurement in Sweden & Nordic Countries

In Sweden, green public procurement (GPP) is practiced since the end of the 1980'ies. Since some years, GPP has also been appointed by the political establishment as one of the key strategic areas for implementing more sustainable patterns of consumption and production so as to meet the national environmental targets. In the middle of the 1990'ies, the so-called "Västernorrlandspärmen" was developed as a green purchasing guideline for public procurement bodies and entities, including environmental criteria to be used for about 25 product groups. A number of Swedish municipalities adopted these guidelines as part of their green procurement activities. Another tool, the "TCO99", has been specifically developed and used for IT-equipment and furniture. In 1998 the Delegation for ecologically sustainable procurement (EKU) were appointed as co-ordinator of green initiatives in the purchasing sector, one of their major tasks being to develop an online database with specific environmental criteria for different product groups (Erdmenger et al, 2001). So far, environmental criteria for 73 different product groups have been developed by the EKU delegation¹⁴. However, the tool has not gained widespread use in all Swedish municipalities.

According to Erdmenger et al (2001), the so-called EKU Delegation – the Delegation for ecologically sustainable procurement – has identified a number of barriers towards green purchasing in Sweden. First, there is a growing need for education and management support, especially as regards the use of IT in purchasing activities. Secondly, there are uncertainties regarding the legal framework for the inclusion of environmental demands in tendering, which is explaining why all public institutions have not yet initiated green purchasing practices. Procurers who are concerned about the potential conflict between freedoms of trade and environmental considerations see this aspect as one of the major barriers to green procurement.

In a recent Swedish report aimed at assessing how and to what extent municipalities use public procurement as a way of leveraging the development towards sustainability, "Future tools – social responsibility and public consumption" (Lann & Thorsell, 2004, my trans), it is concluded that environmental considerations have been quite successfully implemented in Swedish municipalities' procurement practices. However, many smaller municipalities still use the less updated "Västernorrlandspärmen" instead of the new EKU tool, because they perceive it as difficult to apply. This is particularly the case regarding smaller purchases and negotiation of contracts with smaller suppliers in the local context. Many smaller cities and municipalities are subject to central coordination of procurement performed by larger cities, and it is possible that a polarization between larger and smaller municipalities is a growing trend of development as regards public procurement and the opportunities of meeting new challenges.

The hitherto largest study in Sweden on green public procurement, "Miljöanpassning vid offentlig upphandling" (EuroFutures AB, 2002), was issued by the Swedish Environmental Protection Agency (Naturvårdsverket) two years ago. The study was based on an internet-questionnaire sent to 276 different kinds of public authorities, including 122 state organisations and state-owned companies, 133 municipalities, and all 21 county councils covering the whole country. The response rate was 33% (92 fully completed questionnaires), and 58% when also including the questionnaires partly filled in. Among the major findings were that two out of three respondents included some kind of environmental criteria when purchasing "always" or "often" (31% and 35% respectively). Interestingly, the corresponding figure for municipalities alone was 80%, which must be considered a very high ratio. The type of product groups that are "often" subject to environmentally conscious

¹⁴ <http://www.eku.se> (visited 15.10.2004)

purchasing include office material, office equipment, furniture, lamps, light equipment, chemical products, and vehicles. As regards the use of an environmental management system (EMS) as award criteria in tender documents, 30% of the respondents answered positively on this question. The respondents were also asked about the use of a general environmental policy within the organisations as well as whether specific GPP policies were in place. As many as 80% (100 out of 125) responded that they used an environmental policy and 80% (70 out of 90) indicated that their environmental policy included specific policies on environmental considerations with reference to purchasing.

Perhaps, the most illustrating finding as regards the state of play of GPP in Sweden, was that less than 50% indicated that they use some sort of follow-up and measurement of the different environmental criteria applied in contracts. Follow-up is generally overlooked within organizations, and in the case of GPP it is even made more difficult due to lack of adequate models for evaluating the effects of green purchases.

Although this thesis is not focusing on specific details regarding the different kinds of environmental criteria used for various product groups, it might be useful to summarize the findings of the recent unpublished study "Measuring the Environmental Soundness of Public Procurement in Nordic Countries" (Kippo-Edlund et al, accepted for publication). The aim of the study was to develop a method to measure the efforts on green public procurement (GPP) and to provide information on the environmental criteria used for different product groups, but also as regards the general state of play of green public procurement in Denmark, Finland, Sweden and Norway. The method consisted of first collecting 258 contract notices published in Official Journals in each country during two weeks time in 2003, and then asking for copies of both tender documents and award decisions (with a response rate of 77% and 51% respectively).

The survey reveals that 47% of the tender documents in Nordic countries included environmental criteria in any form¹⁵ (Sweden and Denmark 60%, Norway 40%, and Finland 30%). However, only 21% were satisfactory as regards clear specifications of the requirements included in the contract documents. Stating "environmental aspects will be taken into account" is not a well-defined award criterion for instance. The most common environmental selection criteria used in tender documents was application or existence of an EMS. Second most common was the requirement of an environmental plan or policy. Concerning technical specification criteria (for both goods and services), these were mostly referring to the chemical content (harmful compounds), packaging material, and recyclability of the product. Sometimes criteria based on some kind of environmental impact assessment (EIA) were asked for. The use of eco-labelled products was hardly ever included as technical specification criteria in the tender documents. On the other hand, it was more common as award criteria.

As regards the awarding of contracts, slightly less than half of the environmental criteria found in the tender documents were actually mentioned in the award decisions. Furthermore, the evaluation of environmental criteria in the awarding procedure, was often subject to vagueness, i.e. not showing scores or other comparison between tenders. For some product groups, however, the use of criteria is rather common and it is therefore, argue the authors, important to "disseminate of good practice" (Kippo-Edlund et al, p.44) and make use of successful experiences while at the same time developing better criteria for some groups of products. Training activities for purchasers as well as development of more specific instructions and tools to support the purchasers is also suggested in order to make the greening of public procurement easier. The authors conclude that "there is still a lot of work to be done to raise environmental consciousness among the purchasers".

Regarding the difficulty in measuring the efforts of greening public procurement, Kippo-Edlund et al (accepted for publication) suggest that we need research methods that give more objective results than questionnaires and telephone interviews. The latter often have a low response rate and give biased

¹⁵ The environmental criteria were specified in different ways, as qualitative selection criteria (23%), technical specification criteria (21%), award criteria (34%) or as criteria in contract clauses (5%)

results because most respondents willing to take part are already doing rather green in their practices. In other words, *we need to develop methods oriented towards more qualitative assessments of green public procurement*. These methods are inevitably more time consuming, but might on the other hand provide relevant information. On the future possibilities for collecting relevant data and information on GPP (by using tender documents), the authors of the study suggest it might be useful to indicate already in the calls for tenders whether the specific contract includes environmental requirements or not. This kind of transparency would thus allow for more time efficient methods for collecting data. This is particularly relevant as such methods should be repeated on a frequent basis to be able to measure the long-term GPP trends.

At present, the Swedish EPA is conducting a comprehensive survey on the level of environmental criteria in public procurement with the aim of proposing measures for improvement. A questionnaire has been sent out to 561 respondents. The results will be presented in December.

To sum up the findings of all surveys, the following factors seem to be relevant in the greening of public procurement practices:

- A political decision or policy acknowledged by the city council formalising the commitment to green procurement
- A procurement policy at the local department level acknowledging the importance of including green criteria in all purchases
- A handbook or guideline (national and/or local) on green public procurement used by each purchasing department so as to avoid legal uncertainties and compensate for the lack of knowledge at the individual purchaser level
- A database listing all the environmental aspects of products and services to be procured as a supporting measure facilitating active choices by purchasers
- Acknowledgement that a broad knowledge base is needed for implementing green procurement practices; training and education is thus necessary, as well as exchange of experience through networks
- Clear strategies for communication and cooperation to avoid the lack of adequate information
- Due to a lack of models for evaluating GPP it seems necessary to develop methods to measure the effects of GPP in order to provide reliable data

Chapter 3 – Conceptual Framework

In this chapter, the emergence of the phenomenon green public procurement and its connection to sustainable development is described. Relevant definitions and relating concepts are also presented. Furthermore, green public procurement is explained as a process, both from a legal perspective and a more practice-oriented perspective. The conceptual framework is then illustrated and summarized into Causal Loop Diagrams (CLD's), representing the system under study.

3.1 Sustainable Development

In pursue of global sustainability, the production and consumption patterns of the industrialized parts of the world must change. Modern economies of these countries consume large quantities of energy and raw materials, while at the same time producing high volumes of wastes and pollution. Measures for changing this pattern of development must be undertaken in all kinds of economic activities. The recognition of this complex problem – and challenge – is the basis for the initiation, development, and implementation of strategies towards sustainable practices, both at the individual and the societal level. This ontological perspective should guide all economic activities (Kjellén, 2004).

Still, 14 years after the environmental political milestone, the United Nations Conference on Environment and Development (UNCED) in Rio 1992, the concept of sustainable development has

not been clearly defined. The most commonly used definition of the concept appeared 1987 in the report of the World Commission on Environment and Development, more known as the “Brundtland Report” - *Our common future* - where sustainable development is defined as a “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”¹⁶. To achieve this, it has been stressed that the ecological, social and economic (and institutional) dimensions of development must converge in any given area of policy or action. One of the results of the Rio conference was Agenda21; an action-oriented implementation programme for a sustainable development for the 21st century. An important aspect of this guiding document was that it called for changes in our production and consumption patterns. However, things take time. Ten years after the Rio conference, the World Summit on Sustainable Development (Rio+10) in Johannesburg, the issue was readdressed. In the resulting action plan, adopted by all members of the UN, the integration of environmental considerations into all public purchasing activities was pointed out as an important instrument to reach sustainable patterns of production and consumption (Naturvårdsverket, 2004).

As a concept, sustainable development does not tell us exactly how we should practically make the world a more sustainable place to live in. Scholars have criticized the concept for being ill defined and vague¹⁷. One solution to this would be to spend another decade or so discussing and further defining the concept. Another way is conceiving of it as a principle, which shows the direction of development, upon which a multitude of actions and strategies can be developed depending on various contextual factors. When seen as such, i.e. a global ethical and moral regulating or guiding principle, sustainable development as a concept will affect different global actors’ actions and create new systems that must be analyzed as such in order to grasp the complex character of sustainability. There are no simple, linear ways to understand sustainable development. A paradigmatic¹⁸ shift in the ways of thinking – a systemic change - is therefore necessary (Kjellén, 2004; Erdmenger, 2003; Capra, 2002; Haraldsson, 2004; Miller 2004). This must be acknowledged if we are to transform theory into action through concrete measures and strategies. As Erdmenger (2003, p.10) points out, “a much broader approach is needed than simply tightening emission standards, year by year”.

3.2 Buying into Sustainability?

One might wonder how well the issue of green purchasing fits into the paradigm of sustainable development, as the latter addresses not only the *use* of resources, but also the *distribution* of these. The idea of buying ourselves into sustainability might therefore be rejected for merely putting a green face on current practices. Some advocates of sustainable development that emphasize that the use of products should be drastically minimized in the first place, i.e. the issue of sufficiency should be emphasized, as well as connected to the issue of equal distribution of resources, therefore disagree with the GPP concept as such¹⁹. Green purchasing is thus, perhaps, best described as a more pragmatic idea that has been adopted within developed countries and the ideology of “ecological modernization”²⁰ (Conca & Dabelko (2004). The concept refers to a direction of development, which is based on the idea that it is possible to improve the environment through technological advances, market-based incentives and reforms in production systems and management practices, without compromising with existing economic, social, and political structures. From such a perspective, environmental problems should be tackled through environmental policies and instruments, slowly generating a systematic shift of the current practices. The concept “seems to offer a practical set of principles and techniques for dealing with the problems facing advanced industrialized countries” (Carter, 2003). Advocates of ecological modernization do not see a paradigmatic shift happening

¹⁶ However, the concept of sustainability was introduced in the early 1980’ies by Lester Brown, founder of the Worldwatch Institute (Capra, 2002).

¹⁷ The concept is truly ideological and political. However, this does not mean that the scientific community have to reject it categorically as a non-scientific concept.

¹⁸ Paradigm; bundle of fundamental ideas and beliefs

¹⁹ See Hornborg, A (2004) for a discussion on the equality perspective on resource use and development, i.e. “environmental justice”

²⁰ Also referred to as ecological transformation

overnight, thus in a way addressing the complexity of the challenging problems and the need to weigh environmental concerns against societal and economic concerns from a more pragmatic perspective. However, ecological modernization is first and foremost adopted from a industrialized countries' perspective; reason why some people mean that the idea of achieving growth and constantly increasing economic profits without tackling the issue of sufficiency and equal distribution of resources, is directing the attention away from the underlying problem.

3.2.1 Environmental Potential of Green Purchasing

Through the RELIEF-project, for which the objective was to assess the potential environmental benefits of green public procurement scientifically, it has been possible to estimate the benefits that could be generated vis-à-vis green public purchasing²¹. The quantification of possible environmental benefits is an important aspect facilitating for the political decisions in favour of green purchasing. In the project report (Erdmenger, 2002), listed examples include:

- If all public authorities across Europe demanded green electricity, this would save the equivalent of 60 million tonnes of CO₂, corresponding to 18 % of the EU's greenhouse gas reduction commitment under the Kyoto Protocol.
- Almost the same result could be achieved if authorities also opted for buildings of high environmental quality.
- If public authorities in Europe required more energy-efficient computers, thereby influencing the market to move in the same direction, the result would be a saving of 830 000 tonnes of CO₂.
- If all public authorities across Europe opted for water-efficient toilets and taps in their buildings, water consumption could be reduced by 200 million tonnes, corresponding to 0.6 % of total household consumption in the EU.

3.2.2 Green Purchasing; a “Win-Win” Situation

The growing demand and need for sustainable strategies at different levels in the society (corporate, institutional, municipal, individual) promoting efficient use of resources and minimizing total waste volumes have been trickling down since the 1980's and the birth of the concept of sustainable development together with an increased interest in global resource flows as the main cause of environmental problems. The safeguarding of ecological values is seen as a benefit to the global society by slowing down environmental problems such as the human-made greenhouse effect (inducing climate change), eutrophication of waters, production and use of toxic substances, acidification impacts on forests, lakes, watercourses and groundwater, and noise pollution and summer smog (Erdmenger, 2003). If the reduction of such external, or environmental costs, is coupled with economic savings, i.e. when environmentally sound practices pay off in both ends, often referred to as a “win-win”²² situation, environmental or sustainability policies and strategies are often accepted by a wider range of stakeholders, which most likely affect the implementation potential. This might partly explain the considerable attention given to the field of green purchasing during the last decade.

3.2.3 From Re-active to Pro-active Thinking

It has also been pointed out (Erdmenger, 2003; Hydén, 2004) that sustainability will not likely develop as the result of traditional environmental policy instruments based on “command-and-control”, which are lacking real incentives for improvement. Instead, they should be based on a “demand-and-development” perspective; policies that support and create incentives for innovation and self-regulation in order to spur a continuous improvement of the environmental performance of producers. The latter is thus seeking to avoid re-active thinking, i.e. to develop a new measure each time a new environmental problem arise, and instead seeking to foster pro-active strategies based on preventive measures so as to avoid environmental problems in the first place.

²¹ For further examples, see the European Commission database for green purchasing http://www.europa.eu.int/comm/environment/green_purchasing

²² For a discussion on the win-win opportunities from a business perspective see Marron, D (2003) “Greener Public Purchasing as an Environmental Policy Instrument” in OECD (2003) *The Environmental Performance of Public Procurement – Issues of policy coherence*.

Pro-active thinking and self-regulation is not necessarily the result from policies based on a “top-down” perspective. It might also be generated “bottom-up” through advanced practice and what Gillberg (1999) refers to as “normative action”. The latter can be described as the result of advanced practices in a specific context that influences the actions (or practices) somewhere else, through providing supporting structures, incentives and challenges towards change. An advanced level of GPP practice might thus influence suppliers and companies towards environmentally sound practices, or performance, through normative action.

However, in pursue of a sustainable development, technological advances through innovation, economic market-based incentives, and political and administrative regulation (laws and policies), are not the only prerequisites. Sustainability requires different level of changes (Blassingame, 1998). First, on the physical level, processes can be improved so as to reduce pollution and increase the efficiency of resource-use, using technology that allows for this. Second, values and awareness must change too. This is however a much deeper level of change and harder to achieve. The second level of change includes the abovementioned systemic change in thinking. This involves an increase in the level of environmental knowledge both at the individual and institutional/organizational level²³. Having the “right” knowledge - the idea is that we are to change our purchasing preferences towards green products so as to influence the patterns of production and achieve environmental benefits. This requires another, but no less important condition, namely that producers and suppliers provide purchasers with adequate information. Providing the information on the products’ environmental characteristics is still not mandatory, which is reason why voluntary environmental labels or product declarations have been developed. These kinds of instruments, or voluntary measures, are usually referred to as “soft” or “informative” instruments (Klintman & Boström, 2004). These instruments are partly used in GPP, but not for all products and production methods on the market. Neither is their importance widely discussed. Hence, there is a need for mechanisms to provide the right environmental information to the customers or purchasers.

3.2.4 Best Practice towards Sustainability

As a concept, best practice is often found in business and management literature and refers to successful cases of any practice leading to positive results²⁴. However, transfer of best practice is sensitive to cultural factors of the environment where it is to be implemented (Raval & Subramanian, 2000). Hence, it is essential to understand the organizational context of best practice at the source, in order to make best use of it in other settings. “The cultural context /.../ has a major impact on the perception, understanding, interpretation, motivation, acceptance and successful implementation of best practice” (ibid). In other words, practices that do not conform to the values and norms inherent in a given context are less likely to be successfully implemented. In order to develop sustainable practices it therefore seems necessary to address the organizational context, of which prevalent action patterns, i.e. norms, are fundamental. There is however no one best model or strategy for this. Best practice might still be useful as a demonstrator of possibilities and source for inspiration.

3.2.5 Good, Better, Best; From Best Practice towards Best Performance

A concept which is closely linked to green public procurement is Integrated Product Policy (IPP). In 2001 the European Commission launched a “Green Book” on IPP aiming at a continuous development of green products through the assessment of a life-cycle approach. Part of the objectives of the IPP is to support consumers and the public sector with tools to foster the development of green products in the market through their purchasing decisions (Miljöstyvningsrådet, 2004). The latest development with respect to the IPP, is the Environmental Technology Action Plan (ETAP) which is a framework strategy that responds to the aims of the Göteborg and Lisbon strategies by synthesizing various policy initiatives for a sustainable development. The aim of ETAP is to create policies that generate

²³ For a discussion on awareness and knowledge as necessary conditions for a sustainable development, see Hansson (2004), and Capra (2002) on “eco-literacy”.

²⁴ See for instance Ilesley, R (2004) *Best Practice*. Cirencester, Management Books 2000.

incentives and supporting structures for innovation and development of eco-efficient technologies, leaving for industries and corporations to develop the specific techniques and measures for achieving certain targets. A new strategy – Best Environmental Performance (BEP) – is being developed in order to further strengthen the integration of sustainability issues into all policy areas of the EU. BEP would boost innovation by constituting legally binding targets. Using long-term legally binding environmental performance targets, such as resource use targets, would spur necessary changes in consumption patterns. The underlying idea is to shift from the traditional “command-and-control” perspective towards strategies to support voluntary action within the industry (European Commission, 2004b). Best environmental performance is thus a less static concept with a more progressive perspective on what constitutes the best environmental solution at any given moment. Traditional concepts and methods such as Best Available Technology (BAT) and Best Environmental Practice, are concepts oriented towards already existing technologies and methods, and are thus less innovative.

3.3 Green Public Procurement on the International Agenda

The UNCED-Conference in Rio in 1992 and the emergence of sustainable development as a concept can be seen as a starting point for a series of actions taking place within a multitude of areas, involving different actors, with the objective of implementing the principles of sustainable development. One of these fields is green purchasing; an issue that has gained widespread recognition during the last decade. Here, some relevant steps of that process are listed in chronological order.

- 1992** World Business Council for Sustainable Development (WBCSD); a sustainability initiative created by the business sector as a response to the Agenda 21 document in Rio.
- 1992** ICLEI – International Council for Local Environmental Initiatives – is established; having proposed Local Agenda21 (LA21) to the UNCED conference in Rio, ICLEI today is leading inter-municipal clearinghouse on local sustainable development and LA21 issues. Launched the “Adding value – Buying green: European Eco-Procurement Initiative”.
- 1996** OECD’s Programme on sustainable consumption and production
- 1997** The concept of sustainable development is included in the EC Treaty and accepted as an overarching goal of the EU
- 1997** European Green Purchasing Network initiated
- 1999 (Feb)** Eco Procura Europe99 – European Forum for economic and green purchasing and environmental management takes place
- 1999 (May)** The 1997 Treaty of Amsterdam entered into force; environmental considerations have to be integrated into all policies of the European Community (in accordance with art. 6 of the treaty), the so-called “Cardiff process”
- 2000** The Lisbon strategy is adopted by the EU; the aim is to make EU the most competitive and dynamic knowledge-based economy in the world by 2010, capable of combining economic growth with social cohesion and environmental protection
- 2001** The EU Sustainable Development Strategy is adopted at the Göteborg European Council; green procurement is acknowledged as key in achieving the Lisbon Strategy
- 2001-2003** RELIEF, European research project on green procurement
- 2001 (Nov)** EcoProcura roundtable, national green purchasing guidelines in Europe were presented and discussed as well as possible benefits and best approaches of the Common Guidelines
- 2002 (May)** OECD Council recommendation that member countries should take greater account of environmental considerations in public procurement of products and services so as to “improve the environmental performance of public procurement”

- 2002 (Dec)** The World Summit on Sustainable Development (Rio+10) is held in Johannesburg; in the Plan of Implementation (§18) authorities at all levels are encouraged to “promote public procurement policies that foster the development of environmentally sound goods and services”
- 2003 (May)** International Seminar on EU’s new public procurement directives (2004/18/EC and 2004/17/EC) that clarifies the possibilities of including environmental considerations in public tenders
- 2003-2006** ICLEI- project Local Environmental Management Systems and Procurement (LEAP) initiated, with the aim of developing tools for systematically implementing green procurement as part of an EMS and coordinating procurement in order to overcome market barriers
- 2003 (Sep)** EcoProcura Conference in Göteborg, provides the latest information on a variety of topics related to sustainable procurement practices from across Europe and aims at fostering an exchange of practical experiences and coordinate future activities, results in Procura+ Sustainable Procurement Campaign (ICLEI)
- 2004 (Oct)** The First International Conference on green purchasing took place in Sendai, Japan, to share the latest experiences on green purchasing. Resulted in a Green Purchasing Declaration that highlights the use of EMS and Eco-labels as effective tools, as well as the importance of public organizations to act as initiators and develop best practice models, which include “policies, strategies, regulatory frameworks, incentive plans and relevant education programmes to promote Green Purchasing” (GPN Japan, 2004). The International Green Purchasing Network (IGPN) was established.
- 2004 (Oct)** “Eco-procurement and moving beyond”, a BIG-Net international expert seminar in France to gather the latest information on practical issues and exchange on current best practice concerning sustainable procurement in European public authorities took place

Two weeks later, on the 29th of October, in its aim of taking on a more pro-active role the European Commission²⁵ launched the *Buying Green! A handbook on environmental public procurement* that explains in non-legal terms how public purchasers can do to integrate environmental considerations into their procurement activities. At a launch event in Brussels, the handbook as well as the political background was presented, followed by discussions on green public procurement by different stakeholders representing public sector authorities, industries, NGO’s, decision-makers, and various organisations. A number of best practice examples from different countries were also presented, illustrating the potential of green public purchasing in leveraging a market for green products without compromising with economic concerns.

3.4 What is Public Procurement?

Public procurement is any purchasing performed by any public authority within the classical sector or within the utilities sector²⁶. The public procurement rules applicable to purchasing entities also depend on whether the total purchase value is over or below certain so-called “threshold values”, which differ as regards goods, services and construction works²⁷. All procurement above the threshold values apply to EC law and the European procurement directives and must be advertised in the Supplement to the Official Journal for public tenders. Potential suppliers can obtain information in TED²⁸. There are also companies who assist suppliers to find notices on contracts, such as Allego AB. Swedish tenders, above and below the threshold values, must be published in Anbudsjournalen and/or in one of several public access databases. There are a number of different procurement procedures to choose from, depending on whether it is a purchase above or below the threshold values. Many minor purchases are

²⁵ Hereinafter referred to as EC (2004).

²⁶ The classical sector includes purchasing entities within the State, regional, or local authorities and other bodies governed by public law entities, such as county councils and publicly owned companies. The utilities sector include all purchasing entities operating within the water, energy, transport, and postal services sectors.

²⁷ The threshold value for goods and services is 200.000 Euros. It is much higher for public works.

²⁸ Tenders’ Electronic Daily, EU’s database for publication of public procurement

subject to so-called “direct procurement”, which does not have to be publicly advertised²⁹. However, due to principles of market competition, direct procurement should not take place repeatedly, and nor should purchases be divided into smaller units in order to avoid exceeding the threshold values (NOU, 2004).

3.5 What is Green Procurement?

The aim of sustainable procurement is to integrate environmental considerations into all stages of the purchasing process with the goal to reduce the impact on human health and the environment through saving materials and energy, reducing waste and pollution, and encouraging sustainable patterns of consumption behaviours. Sometimes, sustainable procurement is also referred to as eco-procurement, green procurement, green purchasing, environmentally friendly purchasing and affirmative procurement (ICLEI, 2004.08.31). Today green purchasing is most common for products such as energy-efficient computers and buildings, office equipment made of environmentally friendly timber, various office supplies (for example recyclable paper), green vehicles (electric cars, ethanol fuelled vehicles), organic food in canteens, electricity from renewable energy sources, and cleaning agencies and chemicals. However, most of the products that are subject to green purchasing are already well established on the market (Erdmenger, 2003). In order for the green purchasing potential to flourish, the innovation, launching, and dissemination of new products have to be further supported.

Green procurement is a relative concept; it allows for a constant change, or upgrading, on what constitutes an environmentally sound product. What is green today could be greener tomorrow through innovative developments. A “green” product is one that has less environmental impact, i.e. is more environmentally sound, relatively to other products with the same function (Naturvårdsverket, 1997). Integrating environmental considerations into the procurement process thus means choosing a product that:

- during extraction of raw material, production, transportation and distribution (both sidestream and upstream), as well as during the use phase and end phase, generates the least amount of pollution or waste of material and energy resources
- has a long durability
- has highest possible level of recyclability
- do not compromise with the function and quality of the product

The green procurement approach is “an action-driven program from customer to supplier containing environmental requirements, criteria or a survey for the determination of the supplier’s [environmental] performance” (Nagel, 2000, p.220). Green procurement is often described in association with several keywords related to the purchasing process, for example eco-labels, energy use, recyclability, life-cycle costs, avoidance of hazardous substances and so on. Normally, depending on what type of good or service to be procured, different environmental requirements are listed in the procurement contract open for tenders. In order to be awarded a contract, the tenderer must meet with the listed requirements, or criteria. Each criterion is usually evaluated through a set of questions to be answered, for instance the level of carbon dioxide emissions associated with the product or percentage of non-recyclable components in the product. The environmental criteria can as well be linked to the production process, i.e. not only to the product per se, which means that criteria related to the use of an EMS, Design for the environment (DFE), or Life cycle assessment (LCA), can be listed in a procurement survey as requirements to be met by the supplying entity. The use of LCA, the cradle-to-grave approach that focuses on the continuing costs over the whole life cycle of the product, ensures that not only the initial costs of products and production methods are included in the assessment of costs. The LCA-method is thus focusing on the lifetime environmental performance, or function of the product; an aspect that is being increasingly stressed as relevant for the whole concept of greening

²⁹ The ceiling amount for direct procurement is set by each municipality, and often amounts to between one and five Swedish basis amounts, i.e. between 40.000 and up to 200.000 SEK.

production and consumption. The method is closely related to the principle of prevention and the principle of tackling pollution at source (Calster van, 2002).

3.6 Public Procurement Legislation

The Swedish Act on Public Procurement (LOU 1992:1528) came into force January 1, 1994, because of the EES Treaty and the incorporation of the European Directives on public procurement into Swedish legislation. Hence, there is no major difference between national and European procurement law. However, in LOU, the principle of “good business practice” is still emphasized in the preamble (§4), which refers to that all procurement must be conducted in a businesslike manner.

The principal aim of the procurement legislation is that contracting entities take advantage of existing competition. It also lays down the potential for integrating environmental considerations into the procurement process. This is possible as long as it does not hinder trade objectives and as long as the considerations are linked to the subject matter of the contract. It is, however, not mandatory to do so (NOU, 2004).

The European Community Treaty, the Treaty of Amsterdam, lie down the common legislative principles for member states to follow. The so-called “four freedoms”, have legal and practical effects on public procurement. Public procurement must never discriminate against principles of non-discrimination, equal treatment and transparency, proportionality, and mutual recognition between parties (Miljöstylningsrådet, 2004). It would for example be discriminatory to use a certain national eco-label as an exclusive criterion for awarding a public contract.

Until recently, the procurement legislation was unclear, especially as regards the extent to which purchasing authorities, at all administrative levels, should be allowed to apply social and environmental criteria at the various stages of the tendering process. This was so both as regards the stage of the so-called technical specifications, i.e. when listing the characteristics of the good or service to be purchased, and at the stage of the award criteria, i.e. when deciding which of the contractors that offers the most advantageous tender (Jonckheer, 2004). In its interpretative communication presented during the summer 2001, COM (2001) 274 Final, the Commission indicated the possibilities and limitations for including other than economic criteria. The Commission interpreted the then existing law, as allowing the public purchaser to take environmental considerations into account only to the extent that these affected the “performance characteristics” of the end product. Neither could the contracting authorities base their choice on the products’ PPMs where these did not affect the “performance characteristics” of the product (COM (2001) 274 final, p.21).

In September 2002 the European Court of Justice came into play by judging in the Concordia Bus Finland case³⁰, in which it held that the City of Helsinki, which sought to let a contract for public bus transport services, was allowed to take into account the level of polluting emissions from potential contractors’ bus fleet. The Court made clear that the criteria only had to be *linked* (and not *directly linked*) to the subject matter of the contract and it ruled that those environmental criteria could be used to assess the “economically most advantageous” tender. Thus, the Court said, the environmental externalities related to the product’s consumption were to be taken into account. However, it left aside the question of environmental externalities related to the product’s PPMs (Jonckheer, 2004).

The new public procurement directives – 2004/18/EC and 2004/17/EC – adopted on 31 March 2004, strengthen and complement the legal context. Already in article 5 of the so-called “classic directive” (Directive 2004/18/EC, emphasis added), it is stated that the objective is to clarify “how the contracting authorities may contribute to the *protection of the environment* and the *promotion of sustainable development*, whilst ensuring the possibility of obtaining the best value for money for their

³⁰ Known as the “Helsinki bus case”. For a thorough case law analysis, see Kunzlik, P (2003) “Making the Market Work for the Environment: Acceptance of (Some) ‘Green’ Contract Award Criteria in Public Procurement”. *Journal of Environmental Law Vol 15 No 2*. Oxford University Press 2003.

contracts". They specifically mention the possibilities for adopting environmental considerations in technical specifications, selection and award criteria, and contract performance clauses (EC, 2004). To summarize, the new directives are stating that, as long as complying with the general principles of the Community Treaty, it is possible to:

- Include environmental requirements on the production processes and methods (PPMs) when defining the environmental characteristics of the desired product in the technical specifications (art.23).
- Use eco-labels to define the environmental characteristics of the desired good or service (art.23.6).
- Use environmental criteria as a basis for evaluation when selecting and awarding contracts, as long as the criteria refer to the subject matter of the contract (art.53).
- Use Quality and Environmental Management Systems (QMS & EMS) as evidence of suppliers' technical ability and capacity to fulfill a contract (art.48f). These criteria could be included in contract clauses that refer to the period under which the contract is performed, for instance the requirement that the supplier follows an environmental policy and a uses an environmental management system in its operations.

It is furthermore pointed out that procuring entities may chose between specifications based on technical standards or specifications relating to the functionality of the desired product. The latter leaves room for market-driven approaches for improvement of environmental performance of goods and services (Miljöstyrningsrådet, 2004).

At October 29, the Commission invited different stakeholders to a launch event for the Commissions' GPP handbook *Buying Green!* in Brussels. In his opening speech on the political and economic background of green public procurement, Pierre Jonckheer³¹ declared that there is now – after four years of preparatory work on the new directives - substantial legal possibilities for integrating environmental considerations into the purchasing activities, not only in order to benefit the contracting authority, but also the society as a whole.

3.7 The Green Public Procurement Process

Green public procurement covers all activities aiming at integrating environmental considerations into the purchasing of supplies and services; a time-consuming process including:

1. the identification of the market and the actual needs
2. the specification of the desired product
3. the invitation and qualification of tenders
4. the selection of suppliers that meet with the listed criteria
5. the contract award and the provision of the chosen product to the user
6. the evaluation of the supplier (Miljöstyrningsrådet, 2004)

GPP should always strive to find the most environmentally sound product available at the market without compromising with either quality or function. The GPP process consists of several steps where different aspects must be taken into consideration. To get an idea of the process, each of the steps are presented here.

³¹ Member of the European Parliament (MEP), Vice-President of the Greens/EFA Group in the European Parliament

3.7.1 Green Purchasing Strategies

GPP does not automatically mean any structural changes by the contracting authority. It is however necessary to deal with it in a more or less strategic manner. The strategy could for instance result in specific working methods and the use of specific instruments and tools, or maybe even in designing a local model for green purchasing. Any strategy should however begin by assessing the needs in the local purchasing context, such as the need for training of purchasing staff, the need to provide adequate information as well as the need to decide on the products or services that are suitable for green purchasing in each municipal context (EC, 2004).

Before being able to realize a GPP policy and transform it into procurement practices, it is relevant to provide appropriate training and education of purchasing staff, i.e. providing the purchasers within the municipality with the legal, financial, and environmental knowledge (ibid). This is important in order to make judgments on whether environmental considerations are properly balanced compared to other considerations, as well as to be able to understand environmental information regarding the products available in the market. This is also where the ability to use practical guidelines, handbooks and databases might come into the picture. Adequate information and necessary know-how might be available within the municipality already and could be allocated through cooperation between the different departments as well as between different purchasing entities within the municipality. The competence of the individual purchaser could be viewed as the fundament for making active choices and thereby implementing the municipality's decisions on GPP. Once the necessary knowledge is allocated and disseminated, the ability to communicate it to other stakeholders is an important step in raising awareness on the greening of procurement.

3.7.2 Organising Green Public Procurement

The preparatory stage is a deciding factor for the end result of any tender. The earlier the environmental considerations enter the procedure, the better chances for achieving the desired effect. Analyzing the actual needs and preparing a tender through careful planning is necessary if GPP goals are to be achieved (EC, 2004). By emphasizing the desired function – rather than the product – a purchaser can increase the opportunities of taking advantage of the possibilities available on the market. This approach might even lead to the decision that a given contract is unnecessary, i.e. the desired function can be obtained in an alternative manner.

The Commission's GPP handbook (2004) provides some examples, where municipalities have adopted a step-by-step approach, starting with the selection of one or a couple of products with a clear and significant environmental impact. In many cases it is useful to connect this impact to a specific environmental problem, for instance climate change, to motivate the priorities made and link it to other environmental targets and working processes within the municipality. In this step the availability and cost of the greener alternative should be considered, as well as the availability of data needed to specify the environmental criteria in the contract.

First, however, it should be recognised that public purchasing is funded by taxpayers' money. The procurement procedure is therefore guided by two important principles; getting the best value for money and acting fairly. However, this does not necessarily mean that one should always buy what is cheapest. "It means you have to get the best deal within the parameters you set" (EC, 2004, p.12). Greening of public purchasing can be defined in policy targets and thus environmental considerations could be as important as other targets. Acting fairly refers to the Community principles, for example to treat potential suppliers equally and guaranteeing transparency in the tender process.

3.7.3 Specifying the Desired Product or Function

Public purchasing is done with a huge freedom of choice. This confers to the level of environmental considerations as well, as long as they are done in a non-discriminatory way. A choice must never distort the level playing-field for supplying companies operating in the European market. To choose freely and specify certain requirements, means it is relevant to analyze the market in order to know what green alternatives are available (EC, 2004).

Defining the subject matter of a contract means that the desired product is described, followed by a technical specification of the required characteristics of the environmental performance of the product. The environmental requirements listed in the technical specifications have two functions:

- 1) They determine the level of competition by describing the contract to the market.
- 2) They form the basis for evaluation of tenders as well as constituting minimum compliance criteria. The better prepared, and defined, the greater chance to receive an adequate tender fulfilling the environmental requirements.

These detailed specifications can be based on an eco-label or technical standard³², given that these are based on scientific information, accessible, involving all stakeholders when adopted, and “appropriate” for defining the environmental characteristics of the subject matter of the contract (2004/18/EC art.23, 2004/17/EC art.35). It is however not possible, due to the principle of non-discrimination, to say that the supplier must be registered under, or comply with a certain eco-label scheme without accepting equivalent technical evidence or reports. The specific criteria behind the label or standard should be specified. In principle, they can be used by applying a “copy-and-paste” method, given that the criteria do not refer to the general management practice of the supplier.

It is also possible to specify that the product should be made of a specific material or containing certain less hazardous chemical substances. This includes the right to ask for a minimum percentage of recycled or reused content in the product. Furthermore, a buyer can demand that the subject matter of the contract should be manufactured in a specific way, i.e. considering the production methods, as long as the requirements contribute to the characteristics of the product (Miljöstyrningsrådet, 2004).

The subject matter could also be described in terms of a performance-based definition, i.e. a description of the desired effect the product should have. The latter increase the possibilities of achieving a better environmental performance than when listing certain specified criteria, by spurring market creativity and innovation through challenges. In practice, this means leaving it to the supplier to come up with a solution on how to achieve the desired result.

Environmental Product Declaration (EPD) is a national system for information on the environmental performance of products and services, so-called Type III-declarations. EPD’s are used for comparative purposes and are based on quality-assured information (ibid). As such, they could be used - for the same purpose as eco-labels in the green procurement process - as proof of evidence when indicating the technical specifications in contracts. However, EPD’s are based on information such as the use of renewables, energy consumption, and the potential environmental impact for global warming, and thus focus on the function, which might be useful for performance-based definitions of a subject matter.

As the environmental benefits come with the product, it is useful – when possible - to consider the environmental performance during the whole life cycle, from extraction of raw materials to the end of use-phase and disposal of the product. Including the life cycle approach when deciding on a product, helps exploring the actual costs. A product that seems cheaper at first sight, might turn out more expensive (in terms of energy use, durability, waste volume) and more detrimental to the environment because of inferior quality. Green purchasing is often linked to higher initial costs, but an assessment of life cycle costs makes actual costs transparent and could be used to motivate green purchasing decisions (Naturvårdsverket, 2004).

³² The eco-labels mostly used are public, multi-criteria, voluntary, third-party certified eco-labels (Type I) such as the EU flower, the “Nordic swan”, and national labels such as the German “Blue angel”. Sometimes it might be appropriate to use public, single-issue labels such as the EU organic label for food or the “Energy star” for office equipment. Private labels such as FSC (Forest Stewardship Council) and “Bra Miljöval” can be used in some cases.

3.7.4 Selecting Suppliers

At this stage of the procedure, different categories of selection criteria are used to determine if suppliers are able to perform the contract. The categories include exclusion criteria, financial capacity criteria, and technical capacity criteria (Miljöstyrningsrådet, 2004).

A contracting authority can exclude tenderers due to reasons concerning their professional conduct, such as bankruptcy, professional misconduct, and avoidance of paying taxes or social security contributions, and criminal records. If a company has been convicted for non-compliance with environmental legislation, this may be considered as grave misconduct, which is a valid reason for excluding that specific economic operator from the tendering process (ibid).

Technical capacity criteria may also be used to check tenderers' ability to perform the contract. This aspect can be linked to the environmental technical competence and professional qualification of the company, i.e. the capacity to minimize waste, prevent pollution, reduce production of greenhouse gases, etc. In turn, this depends on the company's access to required environmental knowledge, proper education and training of personnel, adequate technical equipment, and relevant research and technical facilities in order to fulfil the environmental demands of the contract (EC, 2004).

It is relevant to clearly indicate in the procurement contract what type of information that is considered relevant in relation to the desired environmental technical capacity, and how this can be verified by the tenderer. One way is asking for a company's earlier experiences of ensuring a high environmental quality when performing a contract. Another way of ensuring that the supplier will follow the environmental requirements is asking for an Environmental Management Scheme (such as EMAS and ISO 14001) or equivalent, as proof of companies' technical capacity (EC, 2004). Still, the criteria must be proportional and related to the subject matter of the contract. Asking bidders to prove their ability to meet the required environmental management measures through an EMS, is allowed "only in appropriate cases" (2004/18/EC, art.48), and as with eco-labels, companies can never be required to be registered under or comply with the requirements of an EMS registration or certification.

3.7.5 Awarding the Contract

After defining the subject matter of the contract and listing the qualification and selection criteria, it is time to determine the award criteria that form the basis for evaluation of tenders. The award criteria must be mentioned in the contract notice or tender documents, and can be based either on "lowest price" or on "economically most advantageous" offer, which means that other sub-criteria are taken into account, for example environmental criteria³³. This is possible as long as these are linked to the subject matter of the contract and follow the principles of the EC Treaty. "Economically most advantageous" does not necessarily mean that the criteria must be economically measurable, i.e. the criteria must not necessarily generate an economic value for the contracting authority. Environmental considerations can benefit the society in the long term and thus be linked to economic concerns. When deciding on including other than price criteria, the purchasing entity must specify the relative weighting given to each of the listed criteria in order to make it possible to evaluate the tenders at a whole and allow for determining the best value for money. Furthermore, award criteria must be specific enough to avoid unrestricted freedom of choice for the contracting authority (Miljöstyrningsrådet, 2004).

Yet again, by using a life-cycle approach when determining the price, the full costs of purchasing, owning, and disposing a product might be taken into consideration and help deciding on the supplier offering the best value for money (EC, 2004).

³³ Other sub-criteria include quality, technical merit, aesthetic and functional characteristics, after-sales service and technical assistance, running costs, cost-effectiveness, delivery date and delivery period, and period of completion.

3.7.6 Contract Performance Clauses

Contract clauses can be used to ensure that environmental considerations are performed during the contract period. This can be done by specifying the way that goods or services should be supplied, for example the means of transport, how the service is performed, disposal of used products, and training of contractor staff according to environmental policies at the performance site. Suppliers must respect contract clauses in accordance with procurement legislation. However, they should not be used to choose and award the contract; “proof of compliance with contract clauses should not be requested during the procurement procedure” (EC, 2004, p.38). Contract clauses can be part of a contract given that they are published in the contract notice or in the specifications, and comply with the common principles of the Community. This last step could be seen as a kind of “built-in following-up” where buyer and supplier cooperate to facilitate future improvements of procurement procedures (Miljöstyrningsrådet, 2004).

3.8 Green Public Procurement from a System Thinking Perspective

The aim of presenting this first mental model is to show my point of departure when developing an understanding of the system. The system components are based on parts of what has been presented as the conceptual framework. In order to describe how the basics of the GPP system work, I have used the planning model for sustainable development developed by The Natural Step (Robért, K-H, 2001) as a source of inspiration. The model is focusing on the hierarchical relationship between principles, strategies, activities, and “metrics”, or methods for controlling processes (indicated in brackets in the CLD). The latter I simply refer to as evaluation methods. These four factors should be acknowledged as interacting within any given sub-system aiming at the development of a more sustainable society.

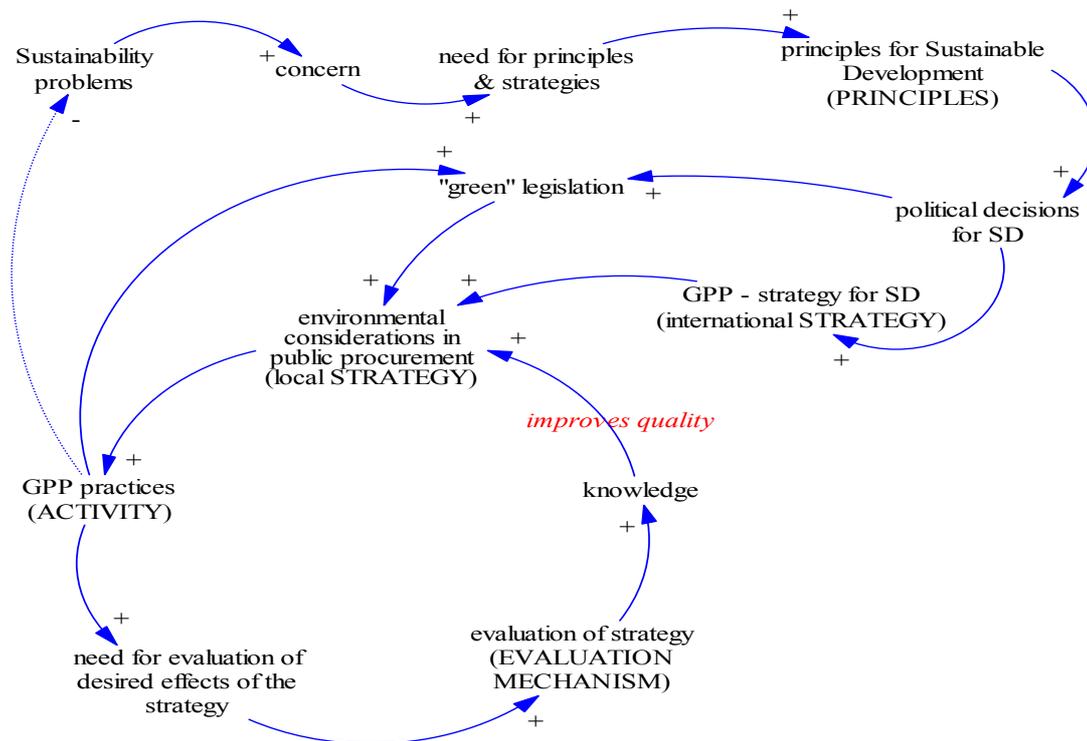


Figure 4: CLD of the GPP process from the international to the local level.

The CLD reflects how environmental and other sustainability problems cause a concern for a sustainable future and a need to formulate principles and strategies to both address and solve the problems. As a consequence, GPP policies are formulated by the international community and these influence (the legal room for environmental measures in) legislation as well as broad political strategies or action programmes for achieving a sustainable development within different sectors and

working fields, for example the greening of public procurement. In turn, this has an impact on local strategies for implementation of such policies, which is also determined by the manoeuvre space that current legislation allows for. This means that the “greener” legislation is the more possibilities to integrate environmental considerations in local purchasing strategies. The aim is making green public procurement practices more sustainable, which in the end has an impact on the root problems of the system. The dotted line indicates this time delay. Through practice (praxis), the legislation is also subject to constant change. The Helsinki Bus case provides an example of this (see p.27). However, the activities will also lead to an increased need for evaluating the desired effects of the local GPP strategy. The evaluation generates new knowledge that could be used to improve the qualitative level of the strategy, i.e. more knowledge does not necessarily mean more strategies, but improve the possibility to make it work better. From this perspective the interplay between strategies, activities, and evaluation methods is subject to continuous improvement, which could be referred to as the “learning loop” of green public procurement. However, this CLD only refers to the *public consumption*, which per se does not lead to improvement of the environment. In order to understand how GPP can influence the development towards sustainability, it has also been necessary to develop an understanding of how it relates to the patterns of *production* and thus other relevant actors in the *market* – producers and private consumers.

3.8.1 Adding Economic, Ecological, and Societal Value while Greening the Market

As illustrated in the CLD above, the public sector can use procurement as one of several instruments to implement a sustainable development. This strategy is primarily a consequence of political decisions and facilitated by changes in procurement legislation allowing the inclusion of environmental considerations. Green procurement is justified by internalizing external (environmental) costs of goods and services. The lack of policies that internalize these costs throughout the global economy motivates governments and authorities to procure greener and act as forerunners. This process could be thought of as implicit in the arrow between the variables “sustainability problems” and “GPP strategy” in the next CLD.

The underlying idea, shown in the CLD below, is then to leverage the market shares of green products through a strategy based on increased public demand. Through central coordination of procurement, i.e. joint procurement by public authorities, the green contracts could be more attractive to suppliers due to a higher economic value of each contract. This would lead to increased competition, lower costs and more value for taxpayers’ money. Through buying green, the public sector could thus increase the competitiveness of green products in the market and promote a faster development of green technologies. This would allow supplying firms to lower costs through scale economies and the provision of an earlier and larger market for environmentally sound products and services. Through competition and scale economies, the price for green products could decrease, which might counteract existing price-barriers towards environment-friendly purchases and motivate an increase in private consumption of green products. Together, private and public consumption, i.e. total demand, could generate an overall increase in green production. In the long term, GPP would thus promote economic, ecological, and social sustainability as regards the patterns of consumption and production in the society.

However, Marron (1997) point to the fact that in order to analyze the desired effect of GPP, it is not sufficient to look at the gross effect it has on public purchases, as the latter always affect private consumption and production. If economies of scale are not large enough, resulting in increasing marginal costs, public procurement policies might generate negative changes in the private market and result in decreasing private purchases. The net effect is thus smaller than desired. Another line of reasoning is that GPP policies sometimes alter the total production, which might affect the environment negatively through increased environmental costs. “A procurement policy that increases both the market share of the green good and total production thus has two opposite effects: a reduction in environmental costs due to changes in market shares and an increase in environmental costs due to changes in total production /.../ as a result, green procurement policies may increase environmental costs” (ibid).

Consequently, it is important to include some assumptions which serve as conditions for the GPP system to work. First, economies of scale have to be large enough. Second, total production should not increase, which means that green products should substitute brown (conventional) ones.

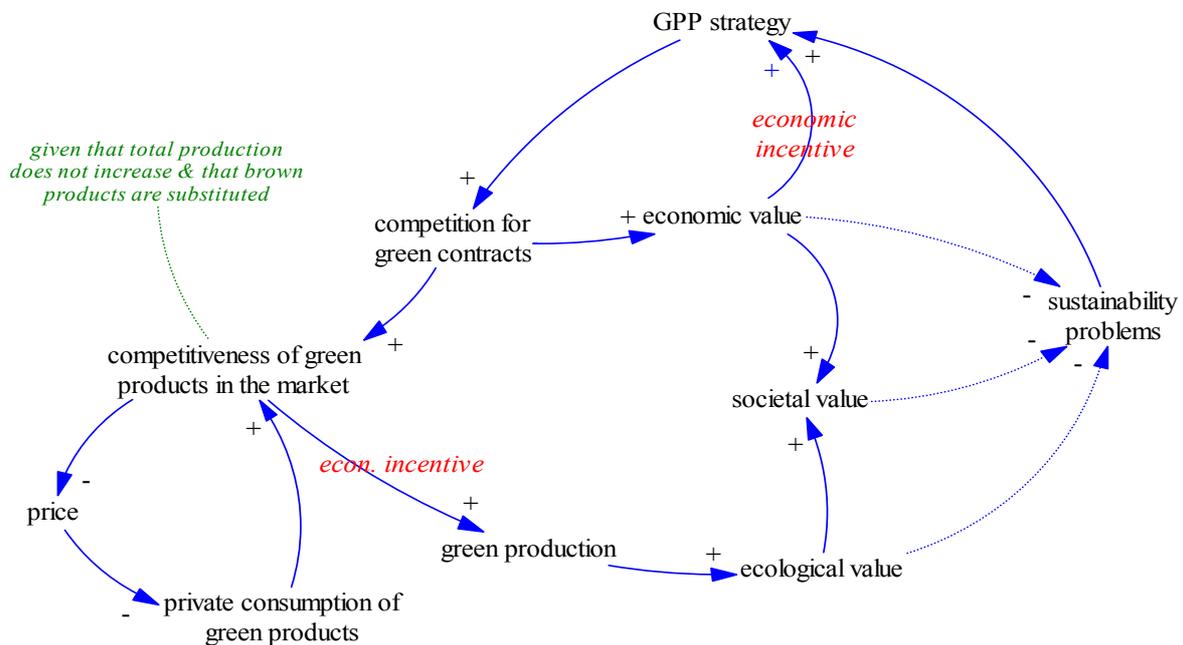


Figure 5: CLD of the GPP as a result of a policy-based strategy with the aim of “greening” the market.

This CLD illustrates how public sector procurement entities can act as “norm setters” and thereby spur private consumption of green products. The consumption demand, both public and private, might generate greener production patterns through increasing the competitiveness of green products, i.e. making them attractive in the market place. This could be achieved, given certain conditions, while at the same time generating economic, ecological and societal value. Because economic benefits are created in the short term, demonstrating that green purchasing is economically feasible (for both public purchasers and producers), they work as tangible incentives towards sustainable consumption and production patterns. Other advantages of centrally coordinated procurement, such as decreasing administrative costs and advantages due to larger purchasing volumes, might serve as further incentives for GPP. The environmental benefits that might lead to less sustainability problems are not seen directly and thus operate on another time-scale. Ecological value and good value for taxpayers’ money is valuable for the society at whole, and thus generate societal value both in the short and long term.

This CLD explains GPP as a policy-based “push” strategy towards sustainability by greening the market. Not all of these components will be explicitly included in the final CLD of the GPP system. However, it is a sub-system which is useful to recognize as a relevant implicit part of the GPP system as defined hereinafter.

Chapter 4 – Application, Results & Discussion

This chapter starts with the findings of the explorative initial phase of data collection, which will be only briefly discussed due to its limited value for the thesis. The chapter will succeed by introducing the three municipalities that have been investigated using qualitative interviews and hermeneutic interpretation as a research methodology. Furthermore, the Norm Model has been used as an analytical tool, which has inspired the way of presenting the “storylines” or themes found in the empirical material. The three cases throw light on the conceptual framework. I have chosen to present and discuss the results at the same time. The analytical results will then be incorporated into a revised

mental model (CLD). This is because of two reasons: first, to illustrate how the analyzed factors behave in the GPP system, and second, to reflect how my understanding of the system has changed accordingly. The chapter concludes with an outlook on a possible development of future GPP.

4.1 The Transparency of Green Procurement in Statistics

This is the result of the basic statistics that have been collected through searching the Allego database. The searches were based on invitation to tenders on goods and services above the threshold values that include the word environment* (see p.12). The statistics include terminated tenders published between June 2003 and June 2004³⁴. Although a large share of Swedish procurement contracts include environmental criteria according to prior surveys, this is not visible in the figures on invitation to tenders reported here. It should be made clear that an invitation to tenders is a brief description of the goods or services to be procured, as compared to the detailed information given in the full tender document. However, to analyze the complete contracts is a particularly time consuming process (Kippo-Edlund et al, accepted for publ.).

The average percentage on invitation to tenders that include the word environment* is 13%. The figures vary between 3% and 25% in the different municipalities. This variation is remarkable, albeit difficult to explain without a deeper analysis. It is worth noting that the figures for the three municipalities selected for interviews (based on efforts in the GPP field) are below the average. The explanation of the comparatively large number of total invitations to tenders in Stockholm might be that many tenders are centrally coordinated and as such, they are registered under both Stockholm and the original purchasing municipality. This is also the case for other municipalities responsible for coordinated tenders. This is a confounding factor, and means that the total tenders are actually somewhat fewer than indicated here. On the other hand, not all contracting entities publish their terminated tenders, although they should. This adds to the problem of data available on green public contracts.

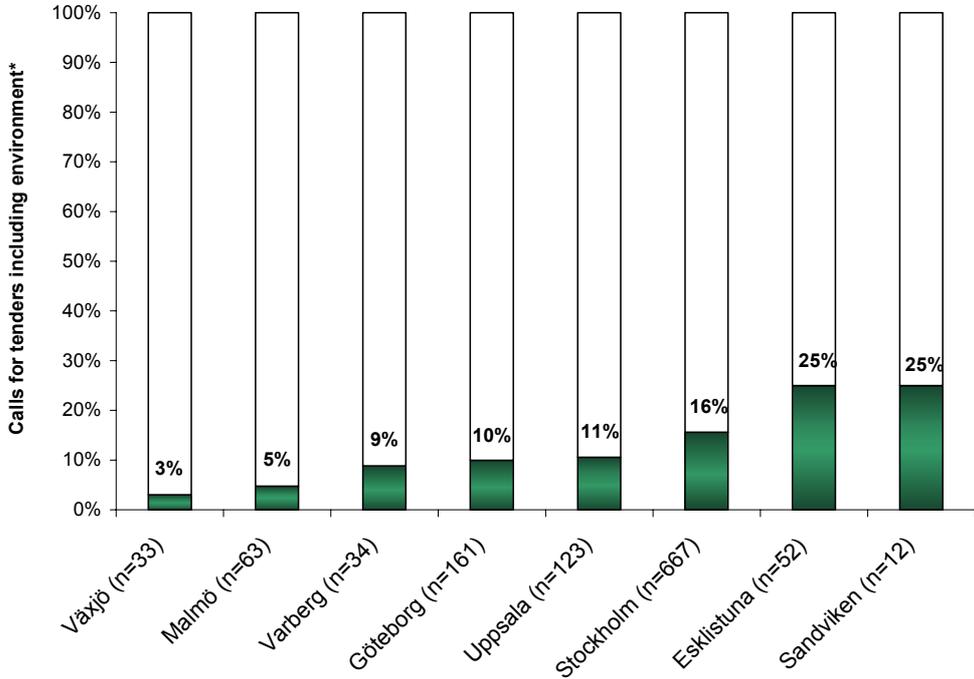


Table 1: Percentage of invitation to tenders in the eight selected municipalities during the last 12 months including words that contain environment*.

It could be argued that whether environmental criteria are part of public contracts or not, is not transparent nor easy accessible through calls for tenders. The transparency would help disseminating

³⁴ mostly published under titles as “prior information notice”, “contract notice” or “contract award notice”

the concept of GPP; it would be a way of communicating the importance of green procurement to involved stakeholders.

Regarding the collection of statistical data from a GPP perspective, it would perhaps be desirable that the transparency of environmental criteria is enhanced. This could be done through listing - already in call for tenders - whether environmental criteria are included in the tender contract, and if so, what type of environmental criteria, and what weight is given to them as compared to other criteria. This would allow for transparency as regards the role of environmental criteria at an earlier stage of the procurement process. This could be paralleled to the arguments by Kippo-Edlund et al (accepted for publ.) on the problem of collecting quantitative data on the use of environmental criteria in public tenders. If the use of environmental criteria in tenders were more transparent, it would be easier to collect data, which in turn might increase the possibilities for evaluating the application of environmental criteria in public contracts on a frequent basis.

However, adding yet another aspect to the already complex process is maybe too much to ask for. The transparency of green procurement could as well be expressed through applying “green” titles in procurement contracts (and thus in calls for tenders as well), meaning that the title is clearly demonstrating that it refers to a purchase of “green” goods or services. This has recently been recommended in the Commission’s GPP handbook *Buying Green!* (2004).

4.2 GPP from a Norm Perspective; Will, Knowledge & Opportunities to Act

As has been pointed out earlier, all components of the GPP system are interlinked, but could be treated individually in order to make it possible to overview the different factors that either drive or hinder the implementation of GPP. What seems an opportunity in one case, might present itself as a hindering factor in another case. The results of the analysis mainly strengthen prior surveys on GPP. However, the method and analytical tools in this thesis differ from other studies, and consequently allows for a slightly alternative analytical point of departure. The different themes of the empirical material have been categorized according to the dimensions of the Norm Model as a way of analyzing the three cases while throwing light on the conceptual and theoretical framework. I believe that the application of social theory is necessary in order to understand how social systems behave. As regards subjective elements, they are part of our descriptions. However, this does not necessarily mean that the results are less meaningful.

4.2.1 Introduction of the Three Municipalities

The main task of the procurement departments (PD)³⁵ is to coordinate the procurement through providing framework contracts for products used on a frequent basis, for instance food, computers, office equipment and cleaning chemicals. However, the several thousands of individual purchasers throughout the municipality are responsible for actually buying, i.e. making use of the framework contracts. Thus, the procurement process at whole, as well as the organisation of the latter, could be considered as encompassing both the PD and all the purchasers throughout the municipality. Central coordination becomes even more difficult as the municipalities are decentralized organisations where each unity has a high level of autonomy. Large purchases outside the realms of the PD normally consist of public works (real estate and infrastructure). In general, neither smaller purchases nor individual contracts are part of the central procurement, but the PD sometimes take on a supporting function for other purchasers. The activities of the PD normally include the coordination of smaller neighbouring municipalities’ procurement as well. The value of framework contracts in Göteborg corresponds to two out of totally nine billion SEK (22%) spent annually on public procurement. The same figure for Malmö is 400 million out of approximately 2 billion SEK (20%), and in Växjö it is around 350 million out of roughly 700 million SEK (50%). The differences in annual turnovers of framework contracts follow the size of the municipalities (in number of inhabitants: approximately

³⁵ Although Göteborg differs from the other two by being a limited company (AB), they are still publicly owned, and will be referred to as a PD.

500.000, 250.000 and 75.000 respectively). The reason why the value of framework contracts of the PD of Växjö is around half of the total value of public procurement, and almost as high as in Malmö, is probably because Växjö coordinates the procurement of the whole administrative district, Kronobergs län. While both Malmö and Växjö has seven employees, the same figure is 25 for Göteborg.

All municipalities have adopted an environmental policy as well as a purchasing policy where the importance of buying ecologically sound is addressed. The GPP is in some cases also brought up in the local Agenda 21 programme. However, green public procurement is only mentioned in general terms and not specified in details, except for a few cases where strategic documents have been developed on specifically targeted products such as the municipal vehicle fleet in Stockholm, Göteborg and Malmö. As for all other municipal entities, it is up to the PD to develop their own specific policies, strategies and guidelines that include the environmental aspects. Göteborg, which started implementing green purchasing earlier than the other two municipalities - in the end of the 1980'ies - is the only case that has developed a specific model for GPP which has been in use for a decade. The "Göteborg model" encompasses laws and policies, tools, information strategy, and education. Furthermore, Göteborg provides the only example of the three where the PD has the outspoken task of coordinating *green* procurement. Both Malmö and Växjö has developed procurement guidelines and working methods, however not specifically addressing GPP. The purchasing policies in these two municipalities date from the mid 1990'ies and are currently subject to an update.

As regards the use of an EMS, the three cases differ. In Göteborg the PD is certified according to the 14001 (and the 9001) ISO-standard. The same EMS scheme is used in Malmö, but without third-party verification and certification. In Växjö a recent EU-project for environmental accounting – Eco-budget – is described as the municipality's EMS.

The following passage from one of the interviews, will lead us to the next section:

"The problem with many surveys is that they focus on the alleged problems as regards public procurement, 'how do we do to make procurement more ecologically sound?', while the question should be 'how do we get people to *purchase* ecologically sound?'. The procurement process is *one* important condition, but it's equally important that politicians prioritize and financially supports it, so that purchasers actually buy the eco-friendly alternatives /.../it's the individual purchases that *really* makes the difference!" (The head of the procurement department in Växjö, 15.10.2004)³⁶

4.2.2 Knowledge; Cognitive Condition for Action

Cognitive barriers towards GPP, such as uncertainties about procurement legislation and the general lack of environmental knowledge, can be found at different levels in the organisation. The professional backgrounds of central purchasers at the PDs mainly provide financial, legal, and administrative competences. While environmental information becomes increasingly hard to handle without the right expertise, it has been acknowledged in all three cases that environmental competence is needed; both general knowledge at the individual level throughout the municipality, as well as specific knowledge on GPP at the PD.

"We can't simply have *one* contact person to be responsible for all the environmental aspects of public procurement. It's too complex. There are simply too many product categories to be able to focus on all of them when it comes to environmental considerations" (The head of the procurement department in Malmö, 08.10.2004)³⁷

Most likely, supporting purchasers with tools and guidelines or handbooks on GPP as well as useful databases would support them to purchase greener by using their knowledge in practice and make active choices. To a varying degree, these kinds of tools are in use in all three cases, for instance the EKV-tool and internal databases and IT-system. In order to use these tools, training and education are prerequisites.

³⁶ Hereinafter this source will be referred to as (V)

³⁷ Hereinafter this source will be referred to as (M)

Although knowledge is recognized as an important factor towards greener practices, especially at the individual purchaser level, the issue of who is to provide the necessary knowledge is not clear. The same goes for the extent to which the PD is responsible for providing purchasers with training and education on GPP in order to influence the development of practice. In Växjö the role of the PD is described as “neutral”, without the mandate to decide that purchasers *should* buy green. In Malmö where GPP is described as a quite new area, “the Environmental Department haven’t really found their role yet”, and the discussion on division of responsibilities is still an on-going process. The vision of the PD in Göteborg is “to give all employees the possibility to make active choices /.../ through providing adequate information and continuously change the attitudes among purchasers”. This is done through continuous staff development and training programmes including general environmental issues as well as specific education on eco-purchasing within different administrative units.

One of the respondents gave an example of a canteen purchaser that buys both ecological and conventional food because of different demands by different unit directors. This illustrated that buying ecologically is not only about price, but also about directives, or action directives, given “from above”. The purchasers’ principal objective is described as to satisfy the needs of the users. Then GPP is not only dependent on the efforts made at the PD and the knowledge and awareness of individual purchasers. It is also affected by the level of awareness of the users that influence the purchasing decisions through their requirements. This is where the general environmental education in the municipality enters the frame. With knowledge comes awareness; they are two sides of the same coin. It thus seems equally important that the general level of environmental knowledge throughout the municipality is elevated. In other words, adequate environmental knowledge does not seem to be of practical use if it is not communicated to all the stakeholders involved in the process.

“To communicate the continuous information and find suitable methods for this, is a never-ending task” (The education & training coordinator of the Procurement Company in Göteborg, 01.10.2004)³⁸

This refers to information as well as, which must be communicated in order to have an impact on the attitudes towards green purchasing. This requires information and communication strategies; an aspect explicitly mentioned in the Göteborg model.

Adequate environmental skills are necessary for integrating environmental considerations into the procurement contracts. While these skills have been incorporated into the PD by employing an environmental expert in one case, this is argued in another case as counteracting the continuous personal development of the environmental competence due to the isolated position in the PD. In a third case, one employee at the Environment and Health Department has had an extra line about eco-procurement added in her job description, meaning that she spends some hours each month providing the PD with environmental expertise. Regardless of method chosen, the need for a holistic approach and cross-sectoral thinking when implementing GPP policies and organizing the procurement practice, requires that existing competences within the municipality are coordinated. This task is impeded by the decentralised organisation where the PD and the Environment and Health Department are independently organised, with separate budgets, and as well physically divided. Even if some cooperation is in place, the way the involved persons should cooperate, as well as the division of responsibilities, seems to be unclear. The incorporation of environmental competence into the purchasing activities is however not only a matter of priority; it is also a matter of resources available. These kinds of structural barriers within the organisation could be seen as relevant systemic conditions for action.

The opportunities to gain knowledge are not only to be found internally within the municipality and its competences. Contracts above the threshold values are open for tenderers in the European market, which means that purchasing activities involve external communication and interaction with the market. This seems to be the case especially for the largest municipality, where the ability to understand the market in order to influence it, as well as to learn by other municipalities and organisations through networking, is described as important aspects:

³⁸ Hereinafter this source will be referred to as (G)

“We are actively *searching* for cooperation; we don’t keep good advices to ourselves, we love sharing experiences” (G)

However, this seems to be the case only where a certain level of curiosity and will to be part of the development is present; a kind of “networking mentality” which is based on the recognition that one can learn from others.

The idea that ecological products are always more expensive is a typical cognitive barrier that seems to hinder GPP at the individual level. This perceived price-barrier seems to be further complicated as the political directives are often about saving money and keeping within the financial budgetary frames. During two of the interviews, this aspect was repeated more than once:

“It is easy to make decisions, but if GPP is not politically prioritized, much won’t happen...” (M)

The level of political commitment and will to provide financial support seems to be key in order for practitioners to implement greener purchasing patterns; it provides a systemic condition for action.

In summary, one could say that the ability to handle environmental information and incorporate it into the purchasing activities seems to be a condition for green procurement practices to develop. The knowledge required both concerns more general environmental issues and more specific issues related to green purchasing. Useful tools and continuous education are used to a varying extent as practical instruments to improve the cognitive conditions for action. This aspect is however not the only prerequisite for action.

4.2.3 Will; Value-based Condition for Action

“The most fundamental issue should be that people understand the impacts of our actions, that we can’t continue following the current road /.../the main point is that *someone*, no matter who, creates the influences /.../ to think like this” (M)

A higher level of knowledge increases awareness; a cognitive instrument for action, which most likely affects the will at the individual level to actually change purchasing behaviours. We have also seen that the will primarily depend on the level of political commitment, which has a decisive role in influencing the willingness through adequate political backing. Sometimes, it can also be the other way around, i.e. that the willingness finds no response at the political level, as expressed by the respondent from the PD in Malmö.

Political commitment in turn seem to be spurred in the first place by key individuals with an interest in the subject matter, driving the initial steps of processes of change. In the case of Göteborg, such committed persons were successfully influencing and driving the issue of GPP both at the political and practical level. In the end of the 1980’ ies, an Environmental Delegation was appointed in order to investigate how the city of Göteborg could develop towards a more sustainable society. Very early, they focused on consumption patterns and public purchasing as important factors behind resource use. This in turn led to a pilot project on GPP that formed the basis for the procurement model still in use today. The European Commission has referred to Göteborg as an example of good practice (see p.13). This kind of international recognition can work as external incentives further driving the will to act.

In the case of Malmö, some of the GPP efforts depended for a while on one key individual. Once that person quitted the job position, the cooperation between departments died away. Hence, it seems to be risky to let the process depend on a few key individuals, unless their commitment leads to a broader involvement of actors.

A firm will - and political support as a backing up factor - is important in order to pro-actively challenge existing procurement legislation by setting higher environmental criteria than sometimes allowed:

“Without doubt, we have stepped over the line many times, but it has never caused any problems” (G)

However, this level of willingness towards change can not always be taken for granted:

“The most important barrier to GPP consists of individual purchasers being uninterested /.../ there’s generally a low level of interest in environmental issues at the periphery /.../ in the reference groups with practitioners it is always dead quiet when the issue of environmental requirements is brought up...they probably know about Växjö being an eco-municipality, but as soon it is about listing environmental criteria...” (V)

Unwillingness at the individual level to change the current course might depend on lack of knowledge and information, and thus awareness accordingly. If people in general are unwilling to change, it might prove difficult to implement GPP as the involvement of all stakeholders is needed to make a difference. This value-based barrier can be tackled, but not without support from decision-makers and clear structures and measures for awareness raising.

4.2.4 Opportunities; Systemic Conditions for Action

“Often, purchasers have the right knowledge and awareness – but their purses are too small” (G)

The relation between decision-makers and executing officials is the very basis of the municipal organisation. The principal task of officials in the administration is to follow political decisions. This view is clearly expressed throughout the three interviews. The level of implementation, which primarily requires a political decision, constitutes the fundament of the process towards greener purchasing behaviours. As one of the respondents put it:

“The political decision was the decisive starting point of it all /.../ which was influenced by a group of really committed persons with different backgrounds that understood that this was something good - from an environmental *and* economic perspective – for both purchasers and suppliers” (G)

The relevance that signals or messages from decision-makers seem to have, leads to another aspect, namely that good communication between decision-makers and practitioners. The importance of effective communication through clear information strategies becomes even more relevant considering the issue of direct procurement and small purchases below the threshold values for which framework contracts are not compulsory and where the active choices of purchasers will determine the level of environmental considerations. According to all respondents, minor contracts outside the central organisation of procurement often lack environmental considerations. This will get worse as the ceiling amount for direct procurement is being raised as a consequence of political decisions. This new challenge for GPP thus means that an increased demand for dissemination of adequate information and education of staff follows, if overall policies on green purchasing are to be implemented on a broad scale.

Political commitment seems to be an important systemic condition which could be expressed through the provision of supporting structures in terms of well-developed policies and guidelines as well as financial support and good communication with the executing entities. The latter is a prerequisite for deeply rooting, or anchoring of the decisions throughout the organisation. Firm political commitment affects the practitioners’ will and commitment to develop greener practices. In principle, a political decision to purchase environmentally sound does not cost a penny, as pointed out by the respondents. However, such decisions must be backed up by political priority, meaning financial support given to those who are responsible for transforming decisions into action. This requires effective communication and a “good dialogue” as well as an atmosphere of seriousness where each step of the procurement process is seen as meaningful.

However, decisions and policies have little effect if they are not followed in practice. A relevant issue as regards the municipal organisational culture is therefore both the anchoring of decisions as well as the level of compliance with the latter.

Resources that are spent on negotiating green framework contracts are lost when individual routine purchasers opt for other alternatives, sometimes cheaper, or simply because of a decentralized organisation lacking good communication and commitment. It might be difficult to create a culture of conformity in an organisation comprising of several thousand purchasers throughout the municipality. These system barriers ultimately lead to a loss of the greening potential of public procurement in the municipality. This aspect could be seen as a culture of non-compliance inherent in the municipal

organisation, which in turn is a sort of systemic condition for action. Systemic non-compliance is described as taking place at different levels throughout the organisation. The problem of non-compliance with framework contracts could be paralleled with municipal officials' reluctance towards following political decisions. One of the respondents describes:

"It's a problem in many municipalities /.../ Officials don't care about decisions taken by the local government administration /.../ The lack of information is a huge barrier /.../one thing is that they don't care about decisions, and another is that they are not even informed about the decisions, and unfortunately, I don't see a change coming either" (M)

This problem is partly described as a consequence of the lack of sanctions. There are simply no feedback mechanisms ensuring a higher level of commitment to decisions and policies. As many other aspects presented here, this is a cultural or interorganizational aspect that could be categorized under the organisational structure; a systemic condition for action.

Another condition for developing green practice is the mutual recognition between buyer and supplier that both parts possess important knowledge and experiences, which is needed to spur innovative thinking towards greener consumption and production patterns. Systemic conditions are not only referring to the political level. Systemic structures can also relate to the level of practitioners, both purchasers and suppliers, where incentives and supporting structures for industry are created in practice. Cooperation and a "good dialogue" throughout the contract period enables the contracting entity to make sure environmental requirements are followed, while it simultaneously works as an incentive for suppliers:

"Close cooperation and development project under the contract period is seen as investment in future market-shares for suppliers, while we can increase environmental considerations and further strengthen 'the green profile' this way" (G)

The same respondent therefore expressed the importance of taking advantage of the possibilities that contract clauses allow for additional conditions. However, it is not only the PD's close cooperation with suppliers that ensure that GPP is implemented in practice. All respondents mention as important that each unit within the municipality analyzes the market as well as the actual needs and purchases. This means handling a lot of information, which is reason why it seems necessary for each purchasing unit to decide on suitable strategic areas or certain product groups where improvements can be made by adopting a step-by-step approach:

"It's not about making miracles come true, it's about working with these [environmental] issues in a more organised manner /.../ eventually the other departments' demands on us will increase, and that's good, then we will be more clearly informed about what is expected from us as regards providing information on environmental aspects of purchasing" (V)

This indicates that together with more systematized organisation of green procurement, for instance through using an EMS, communication within the decentralized municipality might improve. A political decision on a broad-scale implementation of EMS throughout the entire municipal organisation would likely allow for a systematic assessment of environmental issues at a broad scale throughout the different departments.

"Our experience has taught us that through working systematically with environmental issues through an EMS, the purchasing activities are sooner or later highlighted /.../ it [the EMS] generates a *knowledge* about the activities within the organisation /.../ then routines develop automatically, through increased knowledge /.../ a model is needed *too*, as a part of the EMS" (G)

"The continuous environmental work gets much clearer when you follow an EMS" (M)

The assessment of EMS on a broad municipal scale could thus provide the necessary framework for working systematically with GPP as well as other environmental aspects in the organisation. This would mean that the importance of environmental efforts as processes of continuous improvement is built into the day-to-day management routines. However, other surveys have not found strong evidence between the implementation of an EMS and greener procurement practices ((Erdmenger & Ochoa, 2003, see p.17).

One of the respondents brought up an interesting aspect concerning the underlying objective of public procurement:

“It can’t be that the political objectives get so prioritized that the good business practice is lost. I get a bit worried when I hear that they are seriously thinking of taking it away in procurement legislation /.../ I wonder if this is because one cannot refer to good business practice when it is principally a political instrument. /.../ more and more political aspects are now being incorporated into public procurement /.../ but I understand that they want to use it that way...because it’s an enormous instrument of power...and maybe that’s why you can’t call it good business practice anymore...” (M)

Ambiguous directives as regards the main objectives of public procurement might act as a barrier towards GPP. Unless these are clearly specified, it might cause uncertainty and slow down the implementation of GPP. Thus, it seems important to keep in mind that environmental considerations be balanced in relation to other objectives, meaning that public procurement has to be an act of balance between different interests and needs:

“For us, the environmental aspect is one among other requirements” (V)

Perhaps uncertainty is the natural result when procurement legislation and regulation undergo changes. This has been the case during the last years as regards the inclusion of the concept of sustainable development into public procurement. It seems like good business practice must be balanced against good environmental practice, which leaves room for uncertainty as regards the main objective of public procurement. Concepts and definitions change continuously as a consequence of new aims being incorporated into existing structures. One might say that the paradigm of sustainability has begun to find its way into the procurement process. Given the Göteborg case, it seems that such barriers of uncertainty are overcome by a positive mentality, pro-active thinking and a firm will to be part of the development towards good environmental practice. As we have learned, this requires a high level of guiding action directives in the local context that support the development of green practice.

4.2.5 Barriers and Opportunities for Green Practice

The Norm Model has been applied as a tool to understand the normative elements behind the local GPP system; a system, which is primarily driven by socially determined variables or “intangible” factors. Because of this, the mental model of the system has been changed to reflect how willingness, knowledge, and systemic conditions come into play when strategies are to be transformed into practice at the municipal level. As seen in the analysis above, different themes in the empirical material have been sorted under and analyzed in accordance with these three dimensions. This division is not clear-cut in reality, where all factors are interlinked. In the CLD below green boxes are used to indicate barriers and opportunities from a norm perspective. Those variables that might improve the GPP system refer to organisational structures, which in turn are part of the systemic conditions; reason why they are indicated as opportunities.

Another important change of the model refers to the way knowledge and adequate information relates to practice, i.e. the actual implementation of GPP at the local level. In the first CLD, knowledge was described simply as a consequence of practice, as a sort of given one-way relation. This is however not the case in reality, where knowledge is a prerequisite for and thus determine the level of environmental considerations in procurement practices. The level of practice still depends on formulated strategies, but also on knowledge and information as well as willingness to act. Hence, this has been added in the model.

It is also important to stress that GPP practice in itself, i.e. public consumption, does not directly generate environmental benefits. This can only be obtained if production is changed towards more sustainable production methods. This in turn is based on the assumptions presented in the second CLD (see p.34). The greening of public procurement must thus go through the environmental performance of suppliers and corporations to be worthy of its name.

Although the system has been slightly changed in order to reflect the focus of this analysis, the hierarchical relationship between principles, strategies, activities, and evaluation methods (CLD 1), as

well as the political-economic process behind the greening of the market (CLD 2), should be seen as implicit in this CLD.

The thicker arrows illustrate the most crucial feedback occurring between different system components. Each of these main driving forces act as incentives that reinforce “green” consumption and production behaviour. In the case of industry and decision-makers, economic incentives play a major role for commitment. Environmentally sound alternatives must be economically feasible. Increased political commitment might then lead to increased further systemic conditions such as priority given to green purchasing, financial resources provided and improved policies that are supporting and acting as incentives for procurement officials and municipal purchasers. As was the case with legislation, committed key individuals among the practitioners might generate feedback, which might affect decision-makers and their level of commitment in a positive direction. The practitioners’ will to implement green procurement practices also depend on adequate knowledge and access to information; cognitive barriers that could be overcome and turned into opportunities by a number of measures which are indicated in the model (networking, evaluation/follow-up, cooperation & communication, coordination of competences). The lack of knowledge does not automatically lead to such measures taken. However, they are generated by a need for increasing the level of knowledge, information and awareness respectively³⁹. Provided this, GPP practices are more likely implemented. A last feedback loop is created from GPP practice to lack of knowledge. Often, a result of experience and “learn by doing” is practical knowledge, which should be acknowledged as an important cognitive aspect in leveraging action.

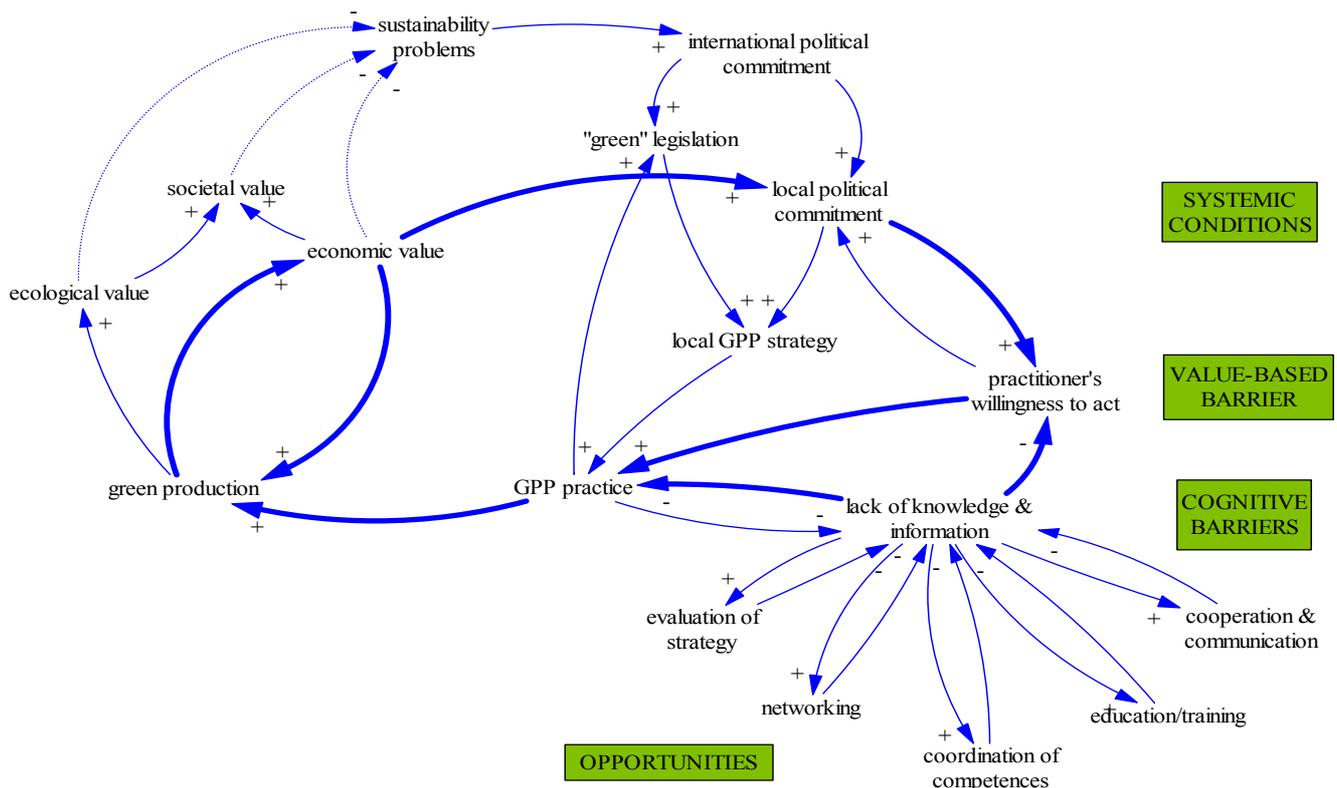


Figure 6: CLD of GPP and the normative elements determining the qualitative level of green practice. The dotted arrows indicate long-term effects, the thin arrows indicate short-term effects, and the thick arrows indicate the most important variables driving the development of GPP practices.

As we have seen, GPP is not solely about improving the environmental profile of consumption. It has to influence and change the production variable in order to render any actual changes as regards the

³⁹ This variable is not included in the CLD.

relation between human-made and natural systems. The environmental relief potential thus builds on the GPP's ability to include the producers into the "greening" process. Accordingly, it is also important that the public sector bodies "live as they learn", if they intend to act as norm-setters. This might be done in different ways, including different policies and strategies, depending on the contextual factors in each municipality. Acting as norm-setters means that the role of the public sector bodies is to provide supporting structures and incentives to facilitate the development of continuous improvement *together with* the implementation of best environmental performance targets from *within* companies. The concept of best performance allows for continuous improvement and thus has a lot in parallel with Environmental Management Systems (EMS). Specific GPP strategies might thus benefit from the broader framework of environmental management that an EMS could provide. Through a systematic assessment of environmental considerations into any human organisation, purchasing activities must eventually come into focus when analyzing the environmental impact of the activities undertaken, as these are part of the overall environmental performance.

4.2.6 GPP as "Normative Action"; Future Development Scenario

A plausible development is that innovation-based "demand-and-development" strategies will be increasingly applied from a "top-down" policy perspective. The development of ETAP and the concept of best environmental performance within the wider IPP approach within EU countries point to this direction. These policies will eventually find their way to the local GPP level. The development of best environmental performance might however be further strengthened by normative action, i.e. development of environmentally sound consumption practices that influence the producers from a "bottom-up" perspective. In turn, this requires the insight that GPP entities could act as important "facilitators" for industry and corporations by cooperating with industry when developing new normative patterns. This would leverage a change from re-active thinking to pro-active thinking, which might further leverage a shift towards self-regulation of best environmental performance. This future scenario is illustrated in the last CLD below. The red arrows indicate the combination of "top-down" and "bottom-up" driving forces towards green production patterns.

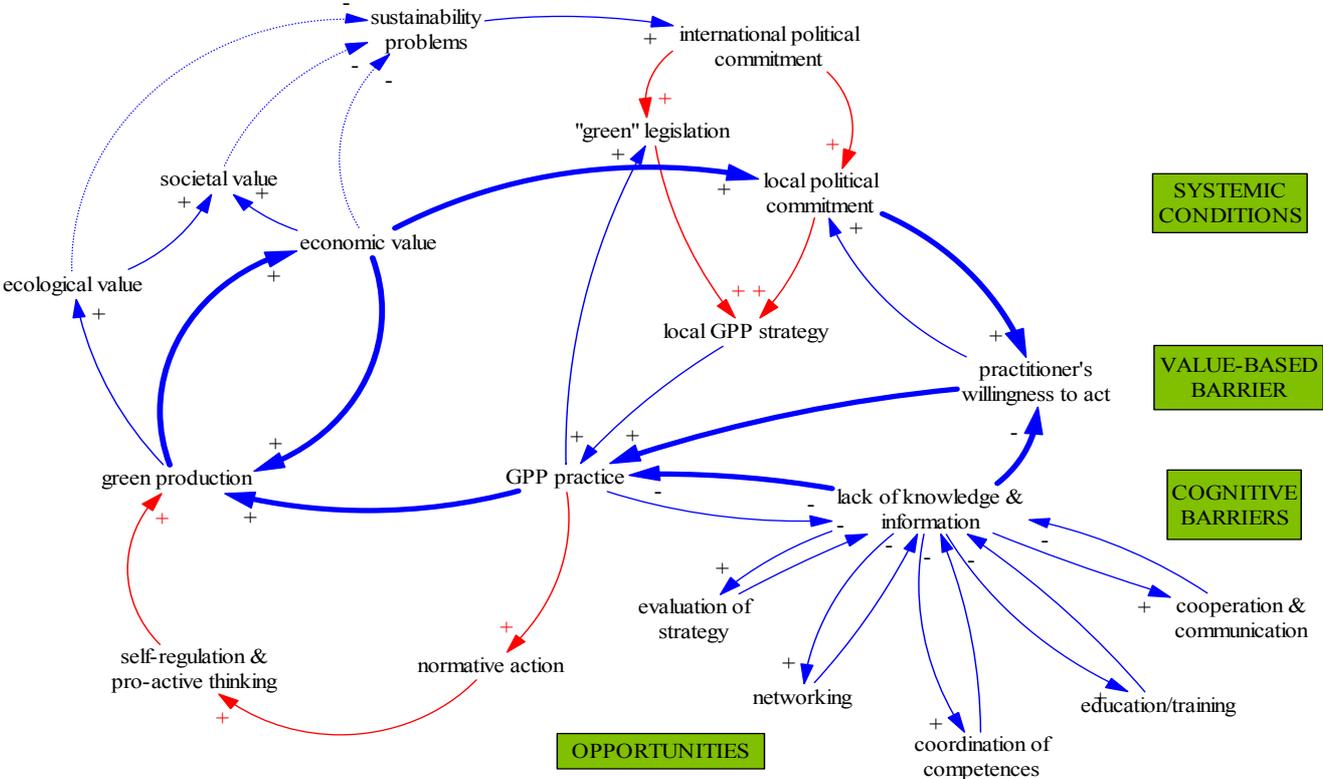


Figure 7: CLD of a possible development of the GPP system through normative action and a shift in environmental policies.

In the case of Göteborg, this process has already started due to an early commitment and interest in GPP, where practice has generated a high level of experience in the field. Their accumulated knowledge is used to take an active part in the overall development of GPP. They also employ an active use of additional contract clauses to make sure the requirements of the contract are followed as well as to build in close cooperation with suppliers as a legally binding commitment between the contracting parties. During the contract period, they aim at providing the suppliers with incentives to increase their commitment that could generate competitive advantages for future contracts. They are not afraid of challenging procurement legislation to improve the environment. In addition, they have political backing.

The thinking behind the GPP in Göteborg reflects a pro-active mentality, where changes are seen as natural steps of developing new patterns of consumption and production. Seen from a norm perspective, all three normative dimensions – value, cognition, and systemic conditions – appear mainly as opportunities in Göteborg, and as such, they constitute supporting structures for normative action.

The following three open questions to the analyzed municipalities conclude this section:

- The Göteborg model could be considered a successful case of normative action, through early development of GPP practices based on learning by doing combined with a serious approach and a positive mentality. Will the Göteborg municipality take on the challenge to become a case of good – normative - practice as regards the inclusion of social sustainability considerations in public procurement?
- Cooperation between the procurement department and the environmental department seems to be a key factor in order to coordinate relevant competences and thereby take GPP in Malmö from the first to the second level in order to further improve green purchasing practices. Perhaps a transparent GPP model – including a clear communication strategy - could be used as a helpful instrument to communicate and coordinate GPP activities in order to achieve a common view of GPP in Malmö?
- As regards specific training of purchasers on GPP in Växjö, it might be useful to draw on the Commissions' Handbook *Buying Green!*. The importance of more general environmental education, which serves as the basic necessary input for increasing the environmental awareness among officials in the administration, should be acknowledged and prioritized at the political level. The overall environmental work might be more clearly systematized through a political decision on implementing environmental management systems for all municipal entities. If this is the purpose of the current pilot-project Eco-budget, it should involve all municipal entities and employees so as to reach a broader significance. Eco-budget might provide an excellent opportunity for early commitment and networking in order to develop a “Växjö model” from scratch, as was the case in Göteborg.

Chapter 5 – Conclusion

By returning to the three initial sets of research questions, some normative tendencies as regards GPP in the three analyzed municipalities can be identified.

- First, the empirical findings of this study indicate that the idea that environmental criteria are equally important as other criteria is gaining acceptance in the municipal procurement organisation. Environmental criteria seem to be widely used in framework contracts and other large procurement contracts. However, minor contracts and direct procurement, i.e. smaller purchases below the threshold values, have been pointed out as problematic as regards environmental considerations in public procurement. This indicates that cognitive aspects such as knowledge and awareness at the individual purchaser level seem important in order to make active “green” purchasing choices. Education and training on GPP at the individual purchaser level therefore seem necessary in order to increase the level of implementing GPP. A

secondary effect of increased knowledge would most likely be that the level of compliance with framework contracts improves, which is important as these mostly contain a high level of environmental criteria. Non-compliance leads to a loss of time and resources invested to provide the appropriate green alternatives for purchasers.

- Secondly, while recognizing knowledge as prerequisite for action, it is equally important to make clear that the development of GPP practices also depends on strategic tools and systematic working methods that clearly specifies the aim of GPP and provides “hands-on” guiding directives. Such organisational measures, or supportive elements, are part of the systemic conditions that can provide necessary supporting structures at the municipal level. The implementation and use of EMS might provide a broad unified framework for a systematic greening of procurement practices, where increased knowledge, information, and awareness ultimately lead to a continuous improvement of the environmental performance.
- Third, independent of how much knowledge, information and awareness as well as systemic opportunities that are available in the municipal context, what really seems to matter is that these assets are turned into action. Thus, all involved actors’ willingness to change conventional purchasing practices towards more sustainable patterns of consumption, is the third normative element that ultimately determines the success-level of GPP and its environmental relief potential. Willingness - and an attitude based on the insight that we are all equally responsible - might thus lead to active choices and development of advanced or best practice. Willingness is likely influenced by commitment and genuine interest for green procurement and the acknowledgement that we can learn from each other’s experiences on green public procurement, for instance through networking. However, purchasing norms in a specific context are probably influenced by other environmental efforts in the local context as well. This third aspect of the initial research questions has however not been subject to thorough analysis in this thesis and could be further studied.

Furthermore, drawing on the empirical material of this thesis, it seems like uncertainty is present between different system levels and actors; decision-makers at the international level, local politicians, and officials within the municipal administration. This uncertainty can be seen as a further barrier that causes time-delays as regards action for sustainability. From a GPP perspective, it could be seen as an “uncertainty gap” between collectively decided targets and conditions for action at the individual level. In addition, this could be connected to the issue of anchoring policies and decisions; not only as regards GPP, but also vis-à-vis the broader question of the environment and sustainability being anchored throughout the organisation. This seem to be a particularly challenging issue with respect to the municipality; an organisation that is not only large, but also highly decentralized. System uncertainty and the difference between green procurement as a political principle and as local agency (depending on contextual factors) is an interesting aspect, which could be further analyzed.

If cognitive and value-based barriers at the individual level, together with structural (systemic) barriers at the organisational level, could be turned into opportunities through various measures – as indicated in the mental model – it may be possible to generate a situation where purchasing norms leads to an advanced level of green procurement practice. If responsible practitioners and officials make active choices to improve the environmental burden of public consumption patterns, this could lead to a similar shift for suppliers and producers within the private sector through normative action. Public sector purchasers might thus act as norm-setters and provide the industry with incentives, challenges, and supporting structures towards improvement of the environmental performance.

While recognizing that knowledge, will and opportunities converge in the formation of norms that in turn determine the level of action (practice), it is important to stress that norms differ between different contexts. In this sense, *practice is bound to its normative context*. It might be tempting to compare the outcome of norms in different municipalities. However, norms should not be treated in isolation from its context.

For sustainability policies – such as green public procurement – to be transferred into action (practice), normative assets such as knowledge and systemic conditions are necessary. Moreover, GPP will not likely be implemented without a firm will to do so. The presence of “green” norms in the municipal context is thus essential for successful implementation. At the same time, two important things must be kept in mind, namely that *everyone shares responsibility for problems generated by a system*, and that *the process of working for a sustainable development is a never-ending story*.

The level of GPP could be analyzed through quantitative methods showing percentages and figures, which can be used to illustrate the achievements so far and thus to some extent work as feedback on the strategies applied. However, to further improve current strategies and practices towards sustainability – which should be the objective of action-oriented science - we must go beyond the figures and analyze more closely the human activity relating to GPP. We must then also use methodologies that enable us to understand what is driving human agency. The use of System Thinking and the Norm Model is one way of doing this, which could be applied in bigger scale, within municipalities, as an internal method of analysis. The method allows for cooperation between departments and coordination of their respective competences. The aim of this would be to facilitate a joint understanding of how the GPP system works, which is important as all actors involved share the responsibility of the problems.

Basically all the opportunities and barriers to GPP identified in this thesis - in line with prior surveys - can be linked to the three dimensions of the Norm Model. It has been argued that the potential of influence lies in normative action patterns. This sheds light on the importance of the Norm Model as a useful method for understanding action-oriented systems. It might however be necessary that further studies on GPP focus on the decisive aspect of action; the role of individual purchasers as practitioners, or “implementers”, of sustainability.

The results of in-depth analyses could then be combined with Systems Thinking in order to understand how action patterns relate to the other components of the broader system; it provides a basis for a holistic perspective, which seems relevant as public procurement is a complex process involving various aspects. When arguing that it might be relevant to integrate concepts developed within social sciences into system thinking in order to understand the dynamic of action-oriented systems, I find support in the following words by Fritjof Capra (2002, p.82):

”A social network, too, is a nonlinear pattern of organization, and concepts developed in complexity theory, such as feedbacks or emergence, are likely to be relevant in a social context as well, but the nodes and links of the network are not merely biochemical. Social networks are first and foremost networks of communication involving symbolic language, cultural constraints, relationships of power, and so on. To understand the structures of such networks we need to use insights from social theory /.../ and other disciplines. A unified systemic framework for the understanding of biological and social phenomena will emerge only when the concepts of nonlinear dynamics are combined with insights from these fields of study.”

References

- Anderson, V & Johnson, L (1997) *Systems Thinking Basics: From Concepts to Causal Loops*. Pegasus Communications. Waltham, USA.
- Blassingame, L (1998) "Sustainable Cities: Oxymoron, Utopia, or Inevitability?". *The Social Science Journal Vol.35/No.1/1998*.
- Calster van, G (2002) "Green Procurement and the WTO – Shades of grey". *RECIEL* 11 (3) 2002.
- Capra, F (2002) *The hidden connections: integrating the biological, cognitive, and social dimensions of life into a science of sustainability*. Doubleday, New York.
- Carter, N (2001) *The politics of the environment – ideas, activism, policy*. Cambridge University Press, Cambridge.
- Collison, M (2003) "Policy and practice". *Summit*, 2003;6;4 (18-20).
- Commission interpretative communication of 4 July 2001 on the Community law applicable to public procurement and the possibilities for integrating environmental considerations into public procurement (COM (2001) 274 final).
- Conca, K & Dabelko, G.D (eds) (2004) *Green planet blues: environmental politics from Stockholm to Johannesburg*. 3rd ed. Westview Press, Oxford.
- Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors.
- Directive 2004/18/EC of the European Parliament and of the Council of 31 March 2004 on the coordination of procedures for the award of public contracts, public supply contracts and public service contracts.
- Dozzi, J (2002) *Results of the 'Buy it Green'-Network of Municipal Purchasers (BIG-Net) Survey*. EU-Research Project RELIEF. ICLEI, Freiburg.
- Erdmenger, C et al (2001) *The World Buys Green – International survey on national green procurement practices*. ICLEI, Freiburg. www.iclei.org/ecoprocura/relief/TheWorldbuysgreen.pdf (retrieved 31.08.2004)
- Erdmenger, C (ed) (2002) *Eco-Procurement – The Path to a Greener Marketplace*. ICLEI EPP. Freiburg, 2002.
- Erdmenger, C & Ochoa, A (2003) *Study contract to survey the state of play of green public procurement in the European Union*. Final Report. ICLEI European Secretariat, Eco-Procurement Programme. www.iclei-europe.org/index.php?id=210 (retrieved 31.08.2004)
- Erdmenger, C (2003) *Buying into the Environment; experiences, opportunities and potential for eco-procurement*. Greenleaf Publishing, Sheffield, UK.
- EuroFutures AB (2002) *Miljöanpassning vid offentlig upphandling – en enkätstudie*. www.naturvardsverket.se/dokument/press/2002/februari/eurofut/rapeufut.pdf (retrieved 31.08.2004)

European Commission (2004a) *Buying Green! - A handbook on environmental public procurement*. Office for Official Publications of the European Communities, Luxembourg.

European Commission (2004b) *Promoting Environmental Technologies: sectoral analyses, barriers and measures. A report from the Sustainable Production and Consumption Issue Group as a contribution to the Environmental Technology Action Plan*. Report EUR 21002 EN. Joint Research Centre (DG JRC). Institute for Prospective Technology Studies.

Gillberg, M (1999) *From green image to green practice. Normative action and self-regulation*. Doctoral dissertation, Sociology of law. Lund: studies in sociology of law nr 6.

Hansson, B (2004) "Miljökunskap för hållbar utveckling". Wickenberg, Nilsson & Steneroth Sillén (eds), (2004) *Miljö och hållbar utveckling – samhällsvetenskapliga perspektiv från en lundahorisont*. Studentlitteratur, Lund.

Haraldson, H (2004) *Introduction to System Thinking and Causal Loop Diagrams*. Reports in ecology and environmental engineering. Report 1:2004. Department of Chemical Engineering, Lund University.

Hornborg, A (2004) "Teknik, ekologi och ojämnt utbyte – ett rättviseperspektiv på 'utveckling'". Wickenberg, Nilsson & Steneroth Sillén (eds), (2004) *Miljö och hållbar utveckling – samhällsvetenskapliga perspektiv från en lundahorisont*. Studentlitteratur, Lund.

Hydén, H (2002) *Normvetenskap*. Lund Studies in Sociology of Law, Lund University.

Hydén, H (2004) "Normativa tendenser på miljöområdet". Wickenberg, Nilsson & Steneroth Sillén (eds), (2004) *Miljö och hållbar utveckling – samhällsvetenskapliga perspektiv från en lundahorisont*. Studentlitteratur, Lund.

Jonckheer, P (2004) "Political and historical background of GPP". Presentation at the launch event of the *Buying Green! A handbook on environmental public procurement* in Brussels 2004.10.29, arranged by the European Commission.

Kippo-Edlund, P., Hauta-Heikkilä, H., Miettinen, H., & Nissinen, A (accepted for publication) *Measuring the Environmental Soundness of Public Procurement in Nordic Countries*. Accepted to TemaNord, Nordic Council of Ministers, Copenhagen.

Kjellén, B (2004) "Hållbarhetens politiska dilemma". Wickenberg, Nilsson & Steneroth Sillén (eds), (2004) *Miljö och hållbar utveckling – samhällsvetenskapliga perspektiv från en lundahorisont*. Studentlitteratur, Lund.

Klintman, M & Boström, M (2004) "Skogs- och genomsättningsmärkning – kunskapsöverföring och politisk process". Boström, M & Sandstedt, E (eds) (2004) *Är vi på rätt väg? Studier om miljöfrågans lösning*. Formas, Stockholm.

Kvale, S (1997) *Den kvalitativa forskningsintervjun*. Studentlitteratur, Lund.

Lann, F & Thorsell, F (2004) *Verktyg i vardande – socialt ansvar och offentlig konsumtion. Kommunundersökning 03*. Sammanfattning. Rapport 1:2004. Genombrott. http://www.genombrott.se/rapport_01_04_sammanfattning.pdf (retrieved 27.10.2004)

Löfgren, T (ed) "De pekar på möjligheterna". *Miljö-Eko* nr 1:2004.

Marron, D B (1997) "Buying green: government procurement as an instrument of environmental policy" *Public Finance Review*; May 1997.

Miljöstyrningsrådet (2004) *Miljöledning vid upphandling & inköp*. Jure Förlag AB, Stockholm.

Miller, G (2004) *Living in the environment – principles, connections and solutions*. 13th ed. Brooks/Cole, USA.

Nagel, M H (2000) “Environmental Supply-Chain Management versus Green procurement in the scope of a Business and Leadership Perspective”. *IEEE*, 2000.

Naturvårdsverket (The Swedish Environmental Protection Agency) (2004) *Kort om miljön och vår konsumtion – för upphandlare och inköpare*.

Naturvårdsverket (The Swedish Environmental Protection Agency) (1997) *Offentlig Upphandling med miljöhänsyn*. Rapport 4508.

NOU - the National Board for Public Procurement (2004) ”A brief description of LOU – The Public Procurement Act in Sweden”. <http://www.nou.se> (retrieved 02.07.2004)

OECD Council (2002) Recommendation to improve the environmental performance of public purchasing, C(2002)3, 23 Jan 2002.
<http://webdomino1.oecd.org/horizontal/oecdacts.nsf/Display/875330FE889EC528C1256F040032D313?OpenDocument> (retrieved 22.10.2004)

Raval, D & Subramanian, B (2000) “Effective transfer of best practice across cultures.” *Competitiveness Review*; June 1, 2000.

Robért, K-H (2001) ”Planering i komplexa system och hållbar utveckling”. Falk, J-E (ed) (2001) *Miljöanpassad upphandling – offentlig och privat*. Jure CLN AB, Stockholm.

Trost, J (1997) *Kvalitativa intervjuer*. Studentlitteratur, Lund.

UNEP (1999) *Global Environment Outlook 2000 (GEO-2000)*. Earthscan Publications Ltd, London.

Internet/Official webpages

GPN Japan - Green Purchasing Network, Japan

“1st International Conference on Green Purchasing in Sendai”

http://www.ics-inc.co.jp/icgps/index1_e.html (visited 16.08.2004, revisited 28.10.2004)

ICLEI, Europe – International Council for Local Environmental Initiatives, Europe

“Sustainable Procurement”

<http://www.iclei-europe.org/index.php?id=194> (visited 31.08.2004)

Interviews

The education & training coordinator of the Procurement Company AB, Göteborg (G) (interviewed in Göteborg 01.10.2004)

The head of the procurement department, Malmö (M) (interviewed in Malmö 08.10.2004)

The head of the procurement department, Växjö (V) (interviewed in Lund 15.10.2004)