Measuring the Environmental Soundness of Public Procurement in Nordic Countries

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Nordic co-operation

Nordic co-operation, one of the oldest and most wide-ranging regional partnerships in the world, involves Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands, Greenland and Åland. Co-operation reinforces the sense of Nordic community while respecting national differences and similarities, makes it possible to uphold Nordic interests in the world at large and promotes positive relations between neighbouring peoples.

Co-operation was formalised in 1952 when *the Nordic Council* was set up as a forum for parliamentarians and governments. The Helsinki Treaty of 1962 has formed the framework for Nordic partnership ever since. The *Nordic Council of Ministers* was set up in 1971 as the formal forum for co-operation between the governments of the Nordic states and the political leadership of the autonomous territories, i.e. the Faroe Islands, Greenland and Åland.

Contents

PREFACE	7
SUMMARY	9
SAMMANFATTNING	11
1. INTRODUCTION	13
1.1 High-level commitments to Greener Public Procurement	13
1.2 Legal status of Greener Public Purchasing	13
1.3 Action to promote GPP in the Nordic countries	15
1.4 A lot has been done – how green is public procurement now?	16
2. AIM OF THE STUDY	21
3. MATERIAL, METHODS AND ORGANISATION	23
4. RESULTS	25
4.1 Tender documents	25
4.2 Award decisions	38
5. DISCUSSION AND CONCLUSIONS	41
5.1 Method	41
5.2 Environmental criteria in tender and award decision documents	42
REFERENCES	45
APPENDIXES	47
Appendix 1a: Covering letter, Finland	47
Appendix 1 b: Covering letter, Sweden	48
Appendix 1 c: Covering letter, Norway	49
Appendix 1d: Covering letter, Denmark	50
Appendix 2: Types of environmental criteria given in the tender documents	51
Appendix 3: Grouping of tender documents	53
Appendix 4. Country-specific results, tables 4b-9b	54

Preface

The project was managed by Efektia Ltd., a consulting company operating in conjunction with the Association of Finnish Local and Regional Authorities. Ms Päivi Kippo-Edlund, the leading Consultant of the Environmental Management Team, acted as the project leader. Consultant Ms Henna Hauta-Heikkilä was responsible for the examination of the tender and award decision documents. Research Manager Mr Heikki Miettinen conducted data processing. Senior Researcher Mr Ari Nissinen guided the work and participated in the writing of the report , especially the introduction.

Preliminary results were presented by Ms Päivi Kippo-Edlund in EcoProcura conference held in Göteborg, Sweden, on 8 to 10 September 2003 and by Mr Ari Nissinen in the Nordic Procurement Conference in Oslo, Norway, on 2 to 3 December 2003.

The project was funded by the Nordic Council of Ministers. The Nordic group ‘Green Public Procurement’ (the present ThemeGroup 9 of NMRIPP group) recognised the need to develop a measurement of Greener Public Procurement, GPP, and has guided and supervised the work from the very beginning. The feedback and support from the group members is greatly acknowledged:

Bente Næss, chair of the group, Ministry of the Environment, Norway

Ulrika Hagbarth (until May 2002) and Isa-Maria Bergman and Tomas Chicote, Swedish Environmental Protection Agency, Sweden

Rikke Traberg (until April 2002) and Søren Mørch Andersen, Danish Environmental Protection Agency, Denmark

Pentti K. Väisänen (until August 2002) and Taina Nikula, Ministry of the Environment, Finland

In addition, one of the authors, Ari Nissinen, participated in the ThemeGroup as a Finnish representative.

Summary

The importance of Greener Public Purchasing, GPP, has increasingly been recognised by those who work to promote sustainable development. In the communication on Integrated Product Policy, IPP, the EU Commission encourages Member States to draw up publicly available action plans to green their public procurement. The Nordic Council of Ministers has stressed the importance of GPP in the strategy for sustainable development and has initiated co-ordination efforts so that public buyers in all the Nordic countries can benefit from each other's experience (NCM 2001).

The aim of the study was to develop a method to measure the environmental soundness of public procurement and to produce information on the kind of environmental criteria that are used for different product groups. The study also focused on the situation of greener public procurement in Denmark, Finland, Norway and Sweden; more specifically, on the larger public purchases, which are governed by directives.

The project was managed by Efektia Ltd, a consulting company operating in conjunction with the Association of Finnish Local and Regional Authorities, and funded by the Nordic Council of Ministers. The steering group was composed of experts in Integrated Product Policy.

The material consists of 258 contract notices published in Official Journals in Denmark, Finland, Norway and Sweden. The contract notices were collected during two weeks in Spring 2003. The organisations which had published the contract notices were asked to send copies of the tender documents and award decisions. The use of environmental technical specifications, award criteria, selection criteria and contract clauses was studied. Finally, the award decisions were examined to see whether they had been influenced by the environmental criteria used. During the project the above work formula was studied and developed where necessary.

The survey's response rate was relatively good: tender documents were sent by 71%, award decisions by 51% of the procurers. However, with this method, the response rate could, in principle, have reached 100%: purchasers should have been ready to send the tender documents, as they are obliged to send them to all tenderers who ask for them.

The method used produced general and specific results at the same time, giving a general picture of the state of GPP in Nordic countries and detailed information of the different kinds of environmental criteria in various product groups. It clearly indicated how often environmental criteria are used in the various countries and in different product groups. On the other hand the method was quite time consuming.

In order to get a better response rate, it is important to get the national procurement authorities involved in the study, so that there could possibly be a legal obligation for the purchasers to send the documents. In addition, it may be important to stress in the covering letter that the results will not be used to accuse purchasers for a non-legal purchase, nor

will individual purchasing units be identified in connection with the details and examples of the tender documents and decisions. Further, a telephone call might be more effective as a reminder than a letter or an email. However they are more time-consuming which must be taken into account in the study plan.

The results showed that, in Denmark and Sweden, public purchasers seek to consider environmental aspects quite often. About 60% of the tender documents included some kind of environmental criteria. However, only half of the criteria were well-specified; therefore, attention needs to be paid on the way relevant product-specific environmental aspects are defined and the criteria formulated.

Environmental aspects were also commonly brought up in Finland and Norway, as in Finland 30% and in Norway 40% of the tender calls included environmental aspects. However, obviously there still is a lot of work to be done to raise environmental consciousness among the purchasers in these countries. Another area that needs attention is the definition of relevant product-specific environmental aspects and the formulation of the criteria.

Looking at the decisions, in many cases the award decisions were not based on the environmental criteria that were presented in the tender documents: almost half of the criteria were not mentioned in the decisions.

The use of environmental criteria was common in some product groups. In future, it is important to disseminate of good practices and criteria. Such product groups included e.g. 'food products and beverages', 'various type of pulp and paper products', 'office and computing machinery, equipment...', 'repair, maintenance and installation services', and 'refuse services'. At the same time there may be a lack of suitable criteria for some services, so that no criteria were presented in the four tender documents for 'insurance and pension funding services' and only one tender document out of four had criteria for 'postal and telecommunication services'. Better criteria should be established for these product groups.

It is obvious that purchasers should be provided with training in the preparation of tender documents and in justifying award decisions from the environmental point of view. Instructions, model examples and tools should also be further prepared to facilitate the environmentally sound procurement process.

Sammanfattning

Vikten av grönare offentlig upphandling, GPP (Greener Public Purchasing), har blivit allt större bland dem som arbetar för att främja hållbar utveckling. I meddelandet om integrerad produktpolitik, IPP, sporrar EU-kommissionen medlemsstaterna att utarbeta offentligt tillgängliga handlingsprogram för att få en grönare offentlig upphandling. Nordiska ministerrådet har betonat vikten av GPP i strategierna för hållbar utveckling och tagit initiativ till sådana samordningsinsatser som gör att alla offentliga upphandlare i de nordiska länderna kan dra nytta av varandras erfarenheter (NCM 2001).

Syftet med studien var att utveckla en metod för att bedöma miljöhänsynen i den offentliga upphandlingen och för att ta fram information om vilka miljökriterier som används bland olika produktgrupper. Därtill fokuserade studien på grönare offentlig upphandling i Danmark, Finland, Norge och Sverige; närmare bestämt på de större upphandlingar som styrs av direktiv.

Projektet leddes av Efektia Ab, ett konsultföretag som arbetar i samband med Finlands Kommunförbund. Nordiska ministerrådet stod för finansieringen. Styrgruppen var sammansatt av experter inom Integrated Product Policy.

Materialet består av 258 meddelanden om upphandling som har publicerats i de danska, finska, norska och svenska officiella tidningarna. Meddelandena om upphandling samlades under två veckor på våren 2003. De organisationer som hade publicerat meddelandena om upphandling ombads skicka kopior av anbudshandlingarna och upphandlingsbesluten. Miljöaspekter i tekniska specifikationer, tilldelningsgrunder, kvalitativa urvalskriterier samt avtalsklausuler studerades. Till sist studerades upphandlingsbesluten i syfte att utreda om miljökriterierna har påverkat besluten. Arbetsmodellen studerades och utvecklades efter behov under projektets gång.

Responsen på undersökningen var rätt så bra: anbudshandlingar skickades av 71 % och upphandlingsbeslut av 51 % av upphandlarna. Med denna metod kunde svarsprocenten emellertid i princip ha kunnat uppgå till 100: upphandlarna borde ha varit villiga att skicka anbudshandlingarna eftersom de är skyldiga att skicka dem till alla anbudsgivare som ber om dem.

Denna metod gav samtidigt både allmängiltiga och specifika resultat, och därmed också en allmän bild av GPP-situationen i de nordiska länderna. Därtill fick man detaljerad information om olika slags miljökriterier som tillämpats inom de olika produktgrupperna. Resultaten visade tydligt hur ofta miljökriterier beaktas i de olika länderna och inom de olika produktgrupperna. Metoden var å andra sidan rätt så tidskrävande.

För att öka svarsfrekvensen är det viktigt att också de nationella myndigheterna fås med i studien, så att det kunde finnas en lagbunden förpliktelse att skicka handlingarna. Det kan därtill vara viktigt att i foljebrevet framhålla att resultaten inte kommer att användas för att anklaga upphandlare för olaglig upphandling och att man inte heller kommer att kunna identifiera enskilda upphandlingsenheter på grund av detaljer eller exempel i anbudshandlingarna eller upphandlingsbesluten. Ett telefonsamtal kunde vara ett mycket

effektivare sätt att påminna upphandlarna än ett brev eller ett e-postmeddelande. Båda sätten kräver emellertid mera tid och detta måste beaktas i undersökningsplanen.

Resultaten visar att offentliga upphandlare i Danmark och Sverige tämligen ofta försöker beakta miljöaspekter. Omkring 60 % av anbudshandlingarna innehöll något slags miljökriterier. Endast hälften av kriterierna var dock väldefinierade; följaktligen gäller det att fästa vikt vid sättet att definiera relevanta produktspecifika miljöaspekter och sättet att formulera kriterierna.

Miljöaspekterna var allmänna också i Finland och Norge, i Finland innehöll 30 % och i Norge 40 % av anbudsförfrågningarna miljöaspekter. Det är emellertid uppenbarligen så att det ännu finns mycket att göra för att höja miljömedvetenheten bland upphandlarna i dessa länder. Ett annat område som också kräver uppmärksamhet är definiering av relevanta produktspecifika miljöaspekter och formuleringen av kriterier.

När man studerar besluten, ser man att upphandlingsbesluten i många fall inte baserade sig på de miljökriterier som lades fram i anbudshandlingarna: nästan hälften av kriterierna nämndes inte i besluten.

Inom vissa produktgrupper var det vanligt att använda miljökriterier. I framtiden kommer det att vara viktigt att sprida god praxis och goda kriterier. Dessa produktgrupper omfattade bl.a. 'livsmedel och drycker', 'diverse pappersmassa, papper och pappersprodukter', 'kontorsmaskiner och datorer, kontors- och datautrustning...', 'reparationer, underhåll och installationstjänster' och 'avfallstjänster'. Samtidigt kan det saknas lämpliga kriterier för vissa tjänster; inte ett enda kriterium lades fram i de fyra anbudsförfrågningarna som gällde 'försäkrings- och pensionsfondstjänster', och endast en anbudsförfrågan av fyra innehöll kriterier för 'post- och telekommunikationstjänster'. För dessa grupper borde bättre kriterier fastställas.

Det är uppenbart att upphandlarna är i behov av utbildning i hur man utarbetar anbudshandlingar och hur man motiverar upphandlingsbeslut med beaktande av miljöaspekter. Anvisningar, modeller och verktyg borde också vidareutvecklas för att underlätta miljömässigt sunda upphandlingsprocesser.

1. Introduction

1.1 High-level commitments to Greener Public Procurement

The importance of Greener Public Purchasing, GPP, is increasing in the context of sustainable development. The United Nations launched in Johannesburg in 2002 a 10-year action programme in which public procurement has an important role in increasing demand for ecologically better products (UN 2002). The OECD gave a recommendation in 2002 to improve the environmental performance of public procurement. In Europe, GPP has been recognised as one of the most important tools of Integrated Product Policy, IPP. The primary aim of IPP is to reduce the environmental impacts of products throughout their life-cycle, harnessing, where possible, a market driven approach within which competitiveness concerns are integrated (EU Commission 2003). Increased demand for greener products by GPP, in competition with the more traditional products, is well suited to the market driven approach of IPP.

In the communication on IPP, the EU Commission encourages Member States to draw up publicly available action plans for greening their public procurement. These should contain an assessment of the present situation and ambitious targets for the situation in three years time. The action plans should also state clearly what measures will be taken to achieve this. They should be drawn up for the first time by the end of 2006 and then revised every three years. (EU Commission 2003)

The Nordic Council of Ministers has stressed the importance of GPP in the strategy for sustainable development and has initiated co-ordination efforts so that public buyers in all the Nordic countries can benefit from each other's experience (NCM 2001).

1.2 Legal status of Greener Public Purchasing

In the EU, the legal status of GPP has been clarified in the new procurement directives, so that they explicitly describe several alternatives how to include environmental aspects in the purchasing process. At the same time, some of the principles that were laid down by the EU Commission in the interpretative document in July 2001 were confirmed. Certain straightforward ways to promote environmental aims cannot be used, but indirect procedures are allowed. Thus, for example, the environmental management system EMAS or ISO 14000 cannot be given as a requirement, but specified environmental management measures can be required for public work and public service contracts, and the tenderer can use EMAS or ISO 14000 as verification. The same principle holds for ecolabels, such as the EU ecolabel Flower: the label cannot be required but the fulfilment of the criteria can be required, and the label can be used as verification.

Compared with environmental management systems and ecolabels, the situation has been less than clear during the past few years with such award criteria that do not provide clear monetary benefit for the purchaser. The EU Commission stated in the interpretative document that such benefit must exist, and stuck to it firmly in the preparation of the

directives until the decision of the EY Court of Justice in the 'Helsinki-bus-case'. The Court ruled that it must be possible to use environmental aspects in the award of the most economically advantageous tender, even if there would not be any clear economical benefit for the purchaser.

It is evident that the legal status of GPP is now rapidly changing in EU countries because national laws are amended to correspond to the EU directives. Although the directives only apply to the larger purchases (i.e. purchases over threshold¹), the amendment may also concern smaller purchases (this applies to Finland for example).

However, as for the results of this study, the present legislation and its interpretation during the past years in each country is a relevant explaining background factor. Therefore, it is reviewed shortly below.

National laws do generally allow many forms of GPP. In some countries, green purchasing policy or green purchases are even obligatory for public organisations. The request for green purchasing policy (which is in law in Denmark and Japan) might have been more effective than the request for green purchases (in Austria and Germany), as it has been easier to guide and supervise (Erdmenger et al. 2001).

Since 1992, Danish public authorities have been obliged to promote the objectives of the new Environmental Protection Act in their procurement. An action plan for a Green Public Procurement Policy was made in 1994. A circular was sent to State institutions in 1995, and a voluntary agreement with the organisations of counties and the municipalities was made in 1998. (Traberg 2002)

In Finland there is no obligation for green purchasing. However, the possibility to use environmental aspects as award criteria has been explicitly expressed in 'Regulation on state purchasing' of 1993. The Waste Act of the same year poses an obligation that authorities must ensure that the products they use are recyclable or made of recycled material.

In Norway, public purchasers must take environmental aspects into account. Article 6 of the Public Procurement Act states that the purchasers "...shall when planning each procurement have regard to the resource implications and environmental consequences of the procurement." However, the law has been in force only since July 2001.

In Sweden there is no legal obligation to GPP.

¹ Threshold above which public supply and service contracts are subject to the Community rules is 236 945 E, except that, a lower threshold of 154 014 E applies to central government and certain central entities. In the case of public works contracts, the threshold is 5 923 624 E.

1.3 Action to promote GPP in the Nordic countries

In Denmark an action plan for GPP was formulated already in 1994, and a lot of material has been produced for public and private purchasers. These include general handbooks and leaflets about GPP, which give background information, explain the aims and benefits of the GPP and the relationship between different environmental aspects and the purchase process. Seminars, conferences and education have been offered. Product-specific guidelines have been made for 47 different product groups, including suggested questions to be used in the tender calls. (Traberg 2002)

In Finland, a few municipalities explored the supply of green products and studied the link between purchasing and environmental loads already at the end of the 1980's. The report 'State material purchasing and environment' drawn up by a working party set up by the Ministry of Environment in 1992 included 53 proposals but resulted in no further action. After this, GPP attracted more interest again in 1998 when the Government program stated that environmental considerations should be considered in public purchasing. Finland produced reports on the state of GPP and the development of an internet-based information-system, www.hymonet.com, began. Hymonet has been in use since the summer of 2001, but it has not attracted many users, probably because of an annual user fee. Hymonet includes product-specific information and guidelines for over 60 different product groups and product-specific environmental questions in attachments that can be used with tender calls. (Nissinen 2001)

The Norwegian Foundation for Sustainable Consumption and Production (GRIP) has promoted green purchasing in Norway since 1995 (Rønneberg & Sætrang 2002). A handbook was published the following year and was updated in 1999. Several product-group-specific guidebooks have been produced. The tools include a program that calculates all the product costs for the purchaser, a tool for means-test at the very beginning of the purchase processes, and an example of purchasing policy. All the material is easily accessible on the Internet. Also, courses on GPP have been offered. In Norway, green purchasing is also promoted by the Green Government Programme (www.gronnstat.no), which has focused on procurement, waste management, energy and transport since 1998.

In Sweden, the development of green purchasing tools was started by local and regional authorities at the beginning of the 1990's. Governmental declaration was given, stating that environmental considerations shall be taken into account in all public procurement activities. Several counties and municipalities launched projects and developed tools for GPP. In 1998, a committee for ecologically sustainable procurement started to promote GPP in Sweden. The main tool was EKV guideline, an internet-based database containing environmental requirements for 75 product groups. It includes a handbook, reports, best practices and product-specific environmental questions that can be used in public purchasing. (Erdmenger et al. 2001, Bergman 2002)

For an overview of the tools presently in use in the Nordic countries, please visit the Web site of the Nordic Council of Ministers at: www.norden.org/miljoe/sk/innkjop.asp

1.4 A lot has been done – how green is public procurement now?

Much has been done to promote GPP in the Nordic countries and in other OECD countries. The countries share common types of policies and programmes. Guidebooks, Internet databases and other tools have been developed. However, GPP is not a new concept. A United Nations conference on environment and development emphasised already in 1992 that public organisations and their purchasing should act as role models to other organisations and consumers. Many organisations began to develop the environmental aspects of their purchases already at the end of the 1980's.

The legal situation in many countries has been positive and encouraging, or even legally binding, towards making ecologically-conscious choices. At the same time, however, the interpretation of the present procurement directives and development of new directives in the EU has been a source of disagreement about the status of GPP.

But how green is public procurement now? How many organisations have policies and action plans for GPP? How often do public organisations use environmental grounds in purchases? Which product groups are purchased with consideration for the ecological aspects, and on which product groups should organisations focus more of their attention? Several studies based on questionnaires have given important information about the situation.

A survey in EU countries

A survey on the state of GPP in Europe was recently commissioned by the EU and conducted by ICLEI (Ochoa & Erdmenger 2003). First, a questionnaire was sent to 6,342 public authorities in the EU Member States. This first survey aimed to find those organisations that were involved in GPP and gather financial information to be compared with national statistics. A second and more detailed questionnaire was sent to those respondents who according to the first survey were applying GPP. The questionnaire comprised of questions to evaluate product-specific environmental criteria in calls for tender and the use of e.g. ecological labels and environmental management systems.

The results of the first questionnaire showed that green criteria were applied by 85% of the respondents. However, the authors suggest that GPP is not this common among the public authorities in Europe. They assume that the purchasers might have overestimated their contribution to green purchasing and that the respondents tended to be the environmentally most conscious authorities. It is worth noticing here that the response rate for the first questionnaire was only 10% (i.e. 611 responses).

In Denmark, Finland and Sweden the response rates were 25 to 29%. Almost all respondents applied environmental criteria to purchases: in Denmark 96% (46 out of 48 respondents), in Finland 100% (21 respondents) and in Sweden 98% (85 out of 87 respondents).

When we look at the responses of those authorities who apply green criteria to most of their purchasers (i.e. to over 50% of purchases), the average figure for Europe is also fairly high at 27%. Here two countries show clearly the highest commitment to green purchasing: Denmark (40%) and Sweden (50%). Austria and Germany have rates close to 30%, Belgium and United Kingdom close to 20%, and France and Spain 15 to 20%. Finland is among the countries with the lowest values in Europe (5%, or 1 out of 21 respondents).

The second survey showed, among other things, what kind of criteria the authorities applied to certain product groups. Out of the 611 authorities that had indicated using environmental criteria only 200 responded, giving the response rate 38% among the authorities that actively used GPP. The number of respondents in Denmark, Finland and Sweden was 12, 10 and 25 respectively.

Paper, computers and vehicles are examples of product groups to which environmental criteria were often applied. There was no single criterion that would be uniformly used in Europe or even in any one country, as the most 'popular' criteria were used by 60% of the public authorities.

Ecolabels were most commonly used in Germany and the Nordic countries. In Germany, 60% of the 'active' authorities used the German label, Blue Angel. In Denmark and Finland around 60% of the 'active' authorities used Nordic Swan, and in Sweden the rate was above 70%. EU's Ecolabel was also used in Finland (20%), Denmark (over 50%) and Sweden (over 30%).

As background information on the use of environmental criteria it is interesting to note that, on average, half of the organisations that actively used GPP had some kind of policy document that formalised the commitment to GPP. Looking at Denmark, Finland and Sweden, the rates were 83%, 30% and 64% respectively.

Denmark

In Denmark, a small survey was conducted among the suppliers of National Procurement Limited in 2001 (Traberg 2002). Around 40% of the suppliers answered that environmental aspects were required *often* or *always* and 20% answered that decisions were *often* or *always* based on environmental aspects.

As background information on the use of environmental criteria, most of the Danish authorities have green procurement policy. In 2000, the rates were 31%, 69% and 52% for municipalities, counties and government institutions, respectively (Traberg 2002).

Finland

In Finland, Lukin (1999) and Reijonen (2000) conducted interviews in 20 to 30 state organisations and municipalities. The results indicated that only a few state organisations and municipalities were committed to GPP and decisions on the strategies of sustainable development, environmental programs and environmental management systems were quite recently made. Typically, the organisations presented environmental protection as a general

principle or considered environmental aspects in some product groups, but only few organisations considered environmental aspects systematically and had tools (e.g. green matrixes) to handle the environmental information and aspects of different products. However, the Nordic Ecolabel was well-known by the purchasers and they often required that the criteria established for the label be met.

Norway

In Norway, telephone interviews were conducted in 2001. The survey covered 151 public authorities, out of which 59% were state organisations, 38% municipalities, and 3% counties. The survey aimed to examine the general situation of GPP in Norway. The study also focused on the role of GRIP, a Norwegian foundation for sustainable consumption and production set up by the Ministry of Environment, in the environmentally conscious purchases of the Norwegian authorities and other professional buyers.

Almost half of the organisations (45%) took environmental aspects into account *always* or *often*.

Looking at those organisations that at least sometimes used environmental criteria (81%), manufacturers and suppliers were most often used as a source of information (61% used this information to establish the criteria). Ecolabels were used by 40% and the material produced by GRIP by 11% of respondents.

Among the criteria that were related to action taken by suppliers, the taking back of packaging material and/or products cast off was most commonly used, by 61% of the organisations that applied at least some criteria. Other common requirements included: Internal control system of the supplier was required by 52% of purchasers, written public environmental policy by 31%, education and service that facilitates the environmentally sound use of the purchased products by 31%, certified environmental management system by 20%, and environmental report by 16% of them.

The criteria most commonly applied to purchased products was 'quality and durability'. It was used by 70% of the organisations that applied at least some criteria. They were followed by chemicals that are dangerous for the health or environment (68%), the costs of product use and waste (65%), and the possibilities to later repair the product (63%). Quite many also used the existence of health and safety bulletin or environmental product declaration of the product (48%), and the ecolabels (45%).

As background information on the use of environmental criteria, 36% of the organisations implemented environmental policy throughout their operations or parts of it. Environmental management system was in use in 24% of the organisations. The procurement policy included environmental aspects in 41% of the organisations. More specifically, 11% had also specified environmental aims, but out of these organisations, only 13% reported on their success.

Sweden

In Sweden, a comprehensive survey was made in 2002 (EuroFutures Ab 2002). An invitation to fill in a questionnaire on the Internet was sent to 276 public authorities, representing half of the total number of public authorities (550). Out of 240 state organisations and state-owned companies in Sweden, 122 were selected for the study, including the largest ones, the organisations that were included in a GPP network, and a sample of the other organisations. Out of a total of 289 municipalities, 133 were selected, covering 88 largest and a sample of the other municipalities. The questionnaire was also sent to all 21 county councils² of Sweden.

The number of fully completed questionnaires was 92, giving a response rate of 33%. Additionally, 64 questionnaires had only been partly filled in, giving 156 as the total number of respondents and a response rate of 58%. As regards the different questions, the number of respondents and response rates varied.

As a general result, two out of three respondents (i.e. around 67%) used environmental criteria in purchases *always* or *often*. More specifically, 40 out of 130 respondents (i.e. 31%) responded that they *always* applied environmental criteria to purchases; 45 (i.e. 35%) responded that they *often* applied environmental criteria to purchases. The ratio of municipalities that used environmental criteria *always* or *often* was as high as 80%.

The product groups to which most of the organisations applied environmental criteria *often*, either as technical specification or award criteria, were: office material, chemical products, furniture, vehicles, office equipment, lamps and light equipment. For example, environmental criteria were *often* applied to office material procurement in 74% of the 23 state organisations and companies, in 72% of the 18 municipalities, and in 100% of the 4 county councils that responded to this question. The figures for office equipment were 64%, 82% and 100% in 28 state organisations and companies, 28 municipalities and 6 county councils, respectively.

At the same time, there were only few product groups (such as pharmaceuticals and ‘other services’) for which the number of organisations that applied environmental criteria *often* was much less than 50%.

Environmental management system was used as award criteria in 30% of the 118 responding organisations.

As background information on the use of environmental criteria, many organisations had some kind of GPP policy: altogether 100 (80%) out of 125 respondents followed environmental policy in their organisations, and this environmental policy included purchases in 70 out of 90 respondents (80%).

However, regarding the management and future planning of GPP in the studied organisations, it is worth noticing that less than 50% used some kind of follow-up and measurement of the application of environmental criteria to purchases.

² county council is a politically chosen organisation that represents a number of municipalities in matters that deal with social matters, public health service and education, to name a few.

Low response rates, possibly biased results

The response rate was low in all the studies described above, except for the telephone interviews in Norway. As already proposed in some studies (EuroFutures Ab 2002, Ochoa & Erdmenger 2003), purchasers who most actively use GPP often also actively respond to questionnaires. Thus the results can be biased, given insight mostly to the practise of 'green' purchasers. Although telephone interviews can reach a good response rate, the information gained is based on the assessment of the purchaser. It is evident that we need a research method that will give more objective results than those provided by questionnaires and telephone interviews.

2. Aim of the study

The aim of the study was to develop a method to measure the environmental soundness of public procurement and to produce information on the kind of environmental criteria that are applied to different product groups. The study also focused on the situation of greener public procurement in Denmark, Finland, Norway and Sweden; more specifically, on that of larger public purchases, which are governed by EU directives.

3. Material, methods and organisation

The material consisted of two samples, including a total of 258 contract notices from the Official Journals in Denmark, Finland, Norway and Sweden. The first sample (i.e. Part I) was collected from the contract notices of week 12 in 2003. However, if the country-specific number of contract notices was less than 30, more contract notices were gathered from the following week in the order they were published. The second sample (Part II) was from week 19 in 2003, and the following week was again included so that the country-specific sample included at least 30 contract notices.

The organisations were first contacted by an email and a letter (see country-specific letters in Appendixes 1a-1d) that was sent at the beginning of the week following the week under study. In the letter, organisations were asked to send copies of the tender documents. After 3 weeks, a reminder was sent to those organisations that had not yet sent in the material. A second reminder was sent 7 weeks after that.

In the first contact letter the purchasers were also asked to send the final award decisions as soon as they were ready. A reminder was sent to the organisations that had not sent the material soon after the given date of decision. A second reminder was sent in December.

The environmental aspects that could be used as criteria in the tender documents were listed and classified before starting the examination of the documents. In addition, based on the environmental aspects found in the tender documents, some new groups of environmental criteria were added in the course of the work. The criteria are described in Appendix 2.

The clarity of the given environmental criteria was also evaluated. The criteria were divided into 'well-specified criteria' and 'not-well-specified criteria'. In order to be classified as 'well-specified-criteria', it had to be clear what kind of information was wanted by the purchasers. For example, the requirement that 'personal computers must fulfil the requirements for energy use defined for the Energy Star label' is a 'well-specified-criteria', but the requirement 'personal computers must save energy' is not. The award criteria 'bonus points are given to cleaning agents that fulfil all the environmental criteria of Nordic Swan ecolabel' is clearly defined, whereas award criteria 'environmental aspects are considered' is not. In addition, 'not-well-specified criteria' includes also those cases that did not make it clear whether the criteria were used as obligatory requirements or award criteria.

The tender documents were classified into product groups based on the CPV numbers given in the contract notices (Appendix 3).

The award decisions were studied by first examining if any environmental aspects were used as a basis for the decision; second, it was examined what kind of detailed

comparisons between the submitted tenders and the technical specifications, selection criteria and award criteria were attached to the decision.

The study process was, for the most part, determined before work began, but some development and modification was needed, because a new method was being developed.

4. Results

4.1 Tender documents

Number of tender documents requested and received

Of the 258 contract notices that were recorded as study material, we received a total of 199 tender documents. The smallest country-specific sample was that of Denmark (38 responses) and largest was that of Sweden (67 responses). The country-specific response rates varied between 67% of Denmark and 84% of Sweden, the total response rate being 77%. (See Table 1).

Table 1. Number of tender documents requested and received

	Denmark	Finland	Norway	Sweden	Total
Documents requested	57	61	60	80	258
Documents received	38	50	44	67	199
Percentage	67 %	82 %	73 %	84 %	77 %

Overview of tender documents with environmental criteria

All in all nearly half (47%) of all the tender documents included environmental aspects (Table 2, Figure 1). In Denmark and Sweden it was more common to use environmental criteria than in Norway and Finland, i.e. the criteria-use-rate¹⁾ was much higher in Denmark and Sweden than in Norway and Finland: Environmental aspects were included in about 60 % of the Danish and Swedish tender documents, 40% of the Norwegian and 30% of the Finnish tender documents. This picture of the state of GPP in the Nordic countries is quite clear, although the two sampling periods Part I and Part II differed from each other quite much for Denmark and Norway.

Table 2. Percentage of tender documents with environmental criteria

	Part I	Part II	Total
Denmark	52 %	71 %	61 %
Finland	28 %	33 %	30 %
Norway	32 %	47 %	39 %
Sweden	59 %	57 %	58 %
Total	45 %	51 %	47 %

¹⁾ criteria-use-rate = the percentage of calls for tenders including environmental criteria

Figure 1. Percentage of tender documents with environmental criteria

Tender documents with well-specified environmental criteria

The environmental aspects were well specified in about a fifth (21 %) of all the calls for tenders (Table 3, Figure 2). For some reason, the percentage was much higher for Part II compared with Part I in every country, and especially in Denmark. All in all, in Part I about 15% and in Part II about 30% of all calls for tenders included well specified environmental aspects.

Looking at the country-specific results, Denmark and Sweden are far ahead Norway and Finland (Table 3, Figure 2). Environmental aspects were well specified in about one third of the Danish and Swedish calls for tenders, which means that the environmental criteria were well defined in about half of the tender documents that included some kind of environmental criteria. For Norwegian and Finnish tender calls the share of well defined criteria was low.

Table 3. Percentage of tender documents with well-specified environmental criteria

	Part I	Part II	Total
Denmark	10 %	59 %	32 %
Finland	0 %	5 %	2 %
Norway	8 %	16 %	11 %
Sweden	34 %	35 %	34 %
Total	16 %	28 %	21 %

Figure 2. Percentage of tender documents with well-specified environmental criteria

Environmental criteria as purchase criteria

The procurers have specified the environmental aspects in the calls for tenders in different ways: qualitative selection criteria, technical specification criteria, award criteria or criteria in contract clauses. In 34% of the calls for tenders environmental aspects were used as award criteria, and in a little over 20% as qualitative selection criteria or technical specification criteria. In only 5% of the calls for tenders environmental aspects were presented as contract clauses.

It must be stressed here that for many tender calls it was unclear what kind of purchase criteria was meant by the purchaser, i.e. if the environmental criteria should be understood as technical specification or award criteria, or if they should be understood as qualitative selection criteria or award criteria. In these cases, if it was not clear that an obligatory demand (i.e. technical specification or qualitative selection criteria) was meant, the criteria were classified as award criteria.

Table 4. The percentage of tender documents including environmental criteria as different purchase criteria

Qualitative selection criteria	23 %
Technical specifications	21 %
Award criteria	34 %
Contract clauses	5 %

Overview of environmental criteria in different product groups

In some product groups it was common to present environmental criteria whereas in some product groups none or only few tender calls included environmental criteria (Table 5, see product groups in Appendix 3). Environmental aspects were included in 86-90% of the calls for tender related to the product classes 'Refuse services', 'Repair, maintenance and installation services' and 'Food products and beverages'. In the product classes 'Various types of pulp, paper and paper products', 'Radio, television and telecommunication equipment and apparatus' and 'Electrical machinery, apparatus, equipment and consumables' 75% of the calls for tenders included environmental aspects.

Of goods, 'Clothing and footwear' as well as 'Machinery, equipment etc' had low criteria-use-rates, below 30%.

The criteria-use-rate was particularly low for many services, being 25% or lower for 'Postal and telecommunications services', 'Computer and related services', 'Architectural and... services' and 'Cleaning services'. And in the four tender calls related to 'Insurance and pension funding services' no environmental criteria were found.

Table 5. Percentage and number (in parentheses) of tender documents with environmental criteria in each product class. Only those product classes are shown in which the number of tender documents was above three (N > 3). Other tender documents are included in the class 'Other'.

	Total	N
Food products and beverages.	86% (6)	7
Clothing and footwear.	25% (1)	4
Various types of pulp, paper and paper products.	75% (3)	4
Machinery, equipment, appliances, apparatus and associated products.	29% (2)	7
Office and computing machinery, equipment and supplies.	45% (5)	11
Electrical machinery, apparatus, equipment and consumables.	75% (3)	4
Radio, television, telecommunication and related equipment and apparatus.	75% (3)	4
Medical and laboratory devices and related medical consumables.	56% (15)	27
Motor vehicles, trailers and vehicle parts.	57% (4)	7
Manufactured goods, furniture, handicrafts and associated consumables.	57% (4)	7
Repair, maintenance and installation services.	86% (6)	7
Passenger land transport services.	47% (7)	15
Postal and telecommunications services.	25% (1)	4
Insurance and pension funding services	0% (0)	4
Computer and related services.	11% (1)	9
Architectural, construction, legal, accounting and business services.	20% (3)	15
Cleaning services.	25% (1)	4
Refuse services.	90% (9)	10
Product class not specified	0% (0)	4
Other	44% (20)	45
Total	47% (94)	199

Environmental qualitative selection criteria in different product groups

In the majority (80%) of the tender documents related to the procurement of refuse services, the environmental aspects were presented as environmental qualitative selection criteria. The environmental aspects were presented as environmental qualitative selection criteria in half of the tender documents for radio, television, telecommunication and related equipment and apparatus, and in nearly half (43%) regarding repair, maintenance and installation services (see Table 6).

Table 6. Percentage of tender documents with environmental qualitative selection criteria by product group. Product classes in which N < 4 are included in ‘Other’.

	Total	N
Food products and beverages.	29% (2)	7
Clothing and footwear.	25% (1)	4
Various types of pulp, paper and paper products.	25% (1)	4
Machinery, equipment, appliances, apparatus and associated products.	14% (1)	7
Office and computing machinery, equipment and supplies.	18% (2)	11
Electrical machinery, apparatus, equipment and consumables.	25% (1)	4
Radio, television, telecommunication and related equipment and apparatus.	50% (2)	4
Medical and laboratory devices and related medical consumables.	22% (6)	27
Motor vehicles, trailers and vehicle parts.	43% (3)	7
Manufactured goods, furniture, handicrafts and associated consumables.	29% (2)	7
Repair, maintenance and installation services.	43% (3)	7
Passenger land transport services.	27% (4)	15
Postal and telecommunications services.	0% (0)	4
Insurance and pension funding services	0% (0)	4
Computer and related services.	11% (1)	9
Architectural, construction, legal, accounting and business services.	7% (1)	15
Cleaning services.	0% (0)	4
Refuse services.	80% (8)	10
Product class not specified	0% (0)	4
Other	16% (7)	45
Total	23% (45)	199

Environmental technical specifications in different product groups

Technical specifications were presented in the majority (70%) of the calls for tenders related to the procurement of refuse services (Table 7). However, in all the other product groups the the criteria-use-rate was rather low or very low, the best being ‘Repair, maintenance and installation services’ (43%) and ‘Office and computing machinery, equipment and supplies’ (36%).

Table 7. Percentage of tender documents with environmental criteria in technical specifications by product group. Product classes in which N < 4 are included in ‘Other’.

	Total	N
Food products and beverages.	14% (1)	7
Clothing and footwear.	0% (0)	4
Various types of pulp, paper and paper products.	25% (1)	4
Machinery, equipment, appliances, apparatus and associated products.	14% (1)	7
Office and computing machinery, equipment and supplies.	36% (4)	11
Electrical machinery, apparatus, equipment and consumables.	0% (0)	4
Radio, television, telecommunication and related equipment and apparatus.	0% (0)	4
Medical and laboratory devices and related medical consumables.	19% (5)	27
Motor vehicles, trailers and vehicle parts.	29% (2)	7
Manufactured goods, furniture, handicrafts and associated consumables.	29% (2)	7
Repair, maintenance and installation services.	43% (3)	7
Passenger land transport services.	27% (4)	15
Postal and telecommunications services.	0% (0)	4
Insurance and pension funding services	0% (0)	4
Computer and related services.	0% (0)	9
Architectural, construction, legal, accounting and business services.	13% (2)	15
Cleaning services.	25% (1)	4
Refuse services.	70% (7)	10
Product class not specified	0% (0)	4
Other	18% (8)	45
Total	21% (41)	199

Environmental award criteria in different product groups

Environmental award criteria were presented in the majority (80%) of the calls for tenders related to the procurement of refuse services (table 8), and it was over 70% also for ‘Various types of pulp, paper and paper products’, ‘Electrical machinery, apparatus, equipment and consumables’, and ‘Food products and beverages’. ‘Passenger land transport services’ included environmental award criteria in 40% of the tender calls. For other services than those related to refuse and transport the criteria-use-rate was low (<30%) or even zero (‘Insurance and pension funding services’ and ‘Cleaning services’).

The criteria-use-rate was also low for such goods as ‘Machinery, equipment, appliances, apparatus and associated products’, ‘Clothing and footwear’, ‘Office and computing machinery, equipment and supplies’, and ‘Manufactured goods, furniture, handicrafts and associated consumables’.

Table 8. Percentage of tender documents with environmental criteria given in the award criteria by product group. Product classes in which N < 4 are included in 'Other'.

	Total	N
Food products and beverages.	71% (5)	7
Clothing and footwear.	25% (1)	4
Various types of pulp, paper and paper products.	75% (3)	4
Machinery, equipment, appliances, apparatus and associated products.	14% (1)	7
Office and computing machinery, equipment and supplies.	27% (3)	11
Electrical machinery, apparatus, equipment and consumables.	75% (3)	4
Radio, television, telecommunication and related equipment and apparatus.	50% (2)	4
Medical and laboratory devices and related medical consumables.	33% (9)	27
Motor vehicles, trailers and vehicle parts.	43% (3)	7
Manufactured goods, furniture, handicrafts and associated consumables.	29% (2)	7
Repair, maintenance and installation services.	29% (2)	7
Passenger land transport services.	40% (6)	15
Postal and telecommunications services.	25% (1)	4
Insurance and pension funding services	0% (0)	4
Computer and related services.	11% (1)	9
Architectural, construction, legal, accounting and business services.	13% (2)	15
Cleaning services.	0% (0)	4
Refuse services.	80% (8)	10
Product class not specified	0% (0)	4
Other	36% (16)	45
Total	34% (68)	199

Environmental contract clauses in different product groups

Environmental aspects were only seldom included in the contract clauses, so that altogether only 10 such contract clauses were found, and only one product class included such criteria in more than one tender call, this product class being the refuse services (Table 9).

Table 9. Percentage of tender documents with environmental criteria given in the contract clauses by product group. Product classes in which N < 4 are included in ‘Other’.

	Total	N
Food products and beverages.	14% (1)	7
Clothing and footwear.	0% (0)	4
Various types of pulp, paper and paper products.	0% (0)	4
Machinery, equipment, appliances, apparatus and associated products.	0% (0)	7
Office and computing machinery, equipment and supplies.	0% (0)	11
Electrical machinery, apparatus, equipment and consumables.	0% (0)	4
Radio, television, telecommunication and related equipment and apparatus.	0% (0)	4
Medical and laboratory devices and related medical consumables.	4% (1)	27
Motor vehicles, trailers and vehicle parts.	0% (0)	7
Manufactured goods, furniture, handicrafts and associated consumables.	0% (0)	7
Repair, maintenance and installation services.	14% (1)	7
Passenger land transport services.	0% (0)	15
Postal and telecommunications services.	0% (0)	4
Insurance and pension funding services	0% (0)	4
Computer and related services.	0% (0)	9
Architectural, construction, legal, accounting and business services.	0% (0)	15
Cleaning services.	0% (0)	4
Refuse services.	30% (3)	10
Product class not specified	0% (0)	4
Other	9% (4)	45
Total	5% (10)	199

Types of environmental selection criteria in different product groups

In the tender documents in which the environmental aspects were described as qualitative selection criteria, the tenderers usually have to implement some kind of environmental management measures. The application or existence of an environmental management system was the most common environmental criteria (Table 10). In addition an environmental plan or environmental policy was often required of the tenderers.

Table 10. Types of environmental selection criteria in different product groups (number of tender documents with criteria). Product classes in which total number of tender documents >3

Product group	Environmental qualitative criteria
Food products and beverages	Environmental management system (2) Environment plan (1)
Clothing and footwear	Environmental management system (1) Environment plan (1)Environment policy (1) Environmental management system (1)
Various types of pulp, paper and paper products	Environmental management system (1) Environment plan (1) Environment policy (1)
Machinery, equipment, appliances, apparatus and associated products	Environmental management system (1)
Office and computing machinery, equipment and supplies	Environmental management system (2) Environment plan (1) Environment policy (1) Subcontractor (1)
Electrical machinery, apparatus, equipment and consumables	Environmental management system (1)
Radio, television, communication, telecommunication and related equipment and apparatus	Environmental management system (1) Environment policy (1)
Medical and laboratory devices, optical and precision devices, watches and clocks, pharmaceuticals and related medical consumables	Environmental management system (4) Environment policy (4)
Motor vehicles, trailers and vehicle parts	Environmental management system (3) Environment plan (1) Environment policy (1) Environmental management system (1) Refuge disposal (1)
Manufactured goods, furniture, handicrafts, special-purpose products and associated consumables	Environment plan (2) Environment policy (1)
Repair, maintenance and installation services	Environmental management system (2)Environment plan (1)Environment policy (1)Refuge disposal (1)
Passenger land transport services	Environmental management system (2)Environment policy (2)
Computer and related services	Environment policy (1)
Architectural, construction, legal, accounting and business services	Environmental management system (1)
Refuse services	Environmental management system (8)Environmental management system (1)

Types of environmental technical specifications in different product groups

For goods, the most used environmental technical specification was the chemical content (in 6 tender calls), i.e. the existence or the concentration of harmful compounds in the goods (Table 11). Requirements were also often set to the packaging materials (5) and their recyclability (5). Some kind of environmental impact assessment was required for goods in 4 tender calls. Criteria based on energy use were used only in 2 tender calls of machines and motor vehicles.

Surprisingly, eco-labelled products were required to be used only in one tender document of goods and one of services.

For services the most common requirements set were also related to the content of harmful compounds (6). In the product groups related to transport and refuse services the criteria connected to harmful emissions were common (i.e. criteria 'Machines', 'Fuel', 'Catalyzer', 'Environmental impact', altogether 12 occurrences).

Table 11. Types of environmental technical specifications in different product groups (number of tender documents with criteria). Product classes in which total number of tender documents >3

Product group	Criteria
Food products and beverages	Chemical content (1) Packaging material (1) Package recycling (1) EIA, Environmental impact assessment (1)
Various types of pulp, paper and paper products	EIA, Environmental impact assessment (1)
Machinery, equipment, appliances, apparatus and associated products	Energy use (1) Package recycling (1) Material recycling (1)
Office and computing machinery, equipment and supplies	Chemical content (3) Environmental impact (1) Packaging material (1) Material recycling (2) EIA, Environmental impact assessment (1)
Medical and laboratory devices, optical and precision devices, watches and clocks, pharmaceuticals and related medical consumables	Environmental impact (1) Guarantee (1) Packaging material (2) Package recycling (1) Fuel (1)Product declaration (1) Environmental knowledge (1) EIA, Environmental impact assessment (1)
Motor vehicles, trailers and vehicle parts	Energy use (1) Environmental impact (1) Machines (1) Eco-labelled products (1)
Manufactured goods, furniture, handicrafts, special-purpose products and associated consumables	Chemical content (2) Guarantee (2) Packaging material (1) Package recycling (2) Product declaration (1)
Repair, maintenance and installation services	Energy use (2) Chemical content (1) Package recycling (2) Environmental plan (1) Eco-labelled products (1) Product declaration (1) Environmental knowledge (1) EIA, Environmental impact assessment (1)
Passenger land transport services	Chemical content (1) Environmental impact (2) Machines (1) Environmental plan (1) Fuel (3) Environmental knowledge (1)
Architectural, construction, legal, accounting and business services	EIA, Environmental impact assessment (1) Other (2)
Cleaning services	Chemical content (1)
Refuse services	Chemical content (3) Material recycling (1) Catalyzer (2) Bio-degradable substances (1) Machines (3)Environmental plan (2) Fuel (1) Product declaration (1) Environmental training (2) Environmental knowledge (2) Environmental plan project specified (1)

Types of environmental award criteria in different product groups

The most common award criteria were of the type ‘environmental aspects will be taken into account’ (occurred in 21 tender documents), representing not-well-specified criteria. Regarding more specific criteria, the most common ones were related to package recycling (8), and other criteria related to packages, the material contents of the products and recycling: recycling of the product (6), recycled material (5), package amount (3). Often the award criteria dealt with eco-labelled products (7), transport (7), fuel, lubricant and noise (7), product declaration (6), and environmental impacts like emissions to air and water (7). Criteria which belong to the qualitative selection criteria occurred as award criteria in many tender calls: environmental management system (6) and environmental policy (3). Eco-driving was used as award criteria in transport services and refuse services (6). The relative importance of chemical content (4) was much lower than in technical specifications. Criteria based on energy use were used only in 3 tender calls of different goods and 2 tender calls of transport services.

Table 12. Types of environmental award criteria in different product groups (number of tender documents with criteria). Product classes in which total number of tender documents >3

Product group	Criteria
Food products and beverages	Package amount (2) Package recycling (3) Chemical content (1) Energy use (1) Recycled material (1) Transport (1) Eco-labelled products (1) Environmental impact (1) Environmental impact in transport (1) Transport distance (1)
Clothing and footwear	Recycled material (1) Product declaration (1) Eco-labelled products (1)
Various types of pulp, paper and paper products	Package recycling (1) Environment policy (1) Environmental management system (1) Eco-labelled products (1) Environmental impact (1) Environmental aspect (1)
Machinery, equipment, appliances, apparatus and associated products	Package amount (1) Product declaration (1)
Office and computing machinery, equipment and supplies	Recycling of the product (1) Package recycling (1) Chemical content (1) Energy use (1) Recycled material (2) Product declaration (1) Material intensity (2) Environmental management system (1) Eco-labelled products (2) Environmental aspect (1)
Electrical machinery, apparatus, equipment and consumables	Chemical content (1) Recycled material (1) Eco-labelled products (1) Environmental aspect (2)

Radio, television, communication, telecommunication and related equipment and apparatus	Eco-labelled products (1) Environmental impact (1)
Medical and laboratory devices, optical and precision devices, watches and clocks, pharmaceuticals and related medical consumables	Recycling of the product (2) Package recycling (1) Chemical content (1) Energy use (1) Product declaration (1) Transport (1) Fuel, lubricant, noise (1) Environmental impact (1) Environmental aspect (4)
Motor vehicles, trailers and vehicle parts	Product declaration (1) Environmental impact (1) Environmental aspect (1)
Manufactured goods, furniture, handicrafts, special-purpose products and associated consumables	Recycling of the product (2) Package recycling (2) Environmental aspect (1)
Repair, maintenance and installation services	Environmental aspect (2)
Passenger land transport services	Recycling of the product (1) Package recycling (1) Energy use (2) Transport (3) Fuel, lubricant, noise (3) Eco-driving (3) Environmental knowledge (1) Environment policy (2) Environmental management system (1) Environmental aspect (3)
Postal and telecommunications services	Environmental aspect (1)
Computer and related services	Environmental aspect (1)
Architectural, construction, legal, accounting and business services	Recycled material (1) Product declaration (1) Environmental management system (1)
Refuse services	Package recycling (1) Recycled material (1) Transport (2) Fuel, lubricant, noise (3) Eco-driving (3) Environmental knowledge (1) Environmental management system (3) Environmental impact (1) Environmental aspect (4)

4.2 Award decisions

Award decisions requested and received

Of the total number of award decisions, we received in all 101 award decisions (51%), made by the procurers based on the tenders received, for the study. We received 19 award decisions from Denmark, 32 from Finland, 10 from Norway and 40 from Sweden (Table 13).

Table 13. Award decisions requested and received

	Denmark	Finland	Norway	Sweden	Total
Decisions requested (tender documents received)	38	50	44	67	199
Decisions received	19	32	10	40	101
Percentage	50 %	64 %	23 %	60 %	51 %

Decisions based partly on environmental criteria

Environmental aspect influenced about a third of the studied procurements. In the following product groups the environmental aspects influenced almost 70% of the award decisions: office and computing machinery, equipment and supplies; repair, maintenance and installation services; and refuse services. In the product group ‘food products and beverages’ environmental aspects had an influence on nearly 60% of the decisions (see Table 14).

Table 14. Award decisions referring to environmental criteria. Decisions by product group. Product classes in which N < 3 are included in ‘Other’.

Product class	Count	Percentage	N
Food products and beverages.	4	57 %	7
Machinery, equipment, appliances, apparatus and associated products.	2	40 %	5
Office and computing machinery, equipment and supplies.	2	67 %	3
Radio, television, communication, telecommunication and related equipment and apparatus.	0	0 %	3
Medical and laboratory devices, optical and precision devices, watches and clocks, pharmaceuticals and related medical consumables.	4	31 %	13
Motor vehicles, trailers and vehicle parts.	2	67 %	3
Repair, maintenance and installation services.	2	67 %	3
Passenger land transport services.	1	14 %	7
Postal and telecommunications services.	0	0 %	3
Insurance and pension funding services, except compulsory social security services and insurance-related services.	0	0 %	3
Computer and related services.	0	0 %	3
Architectural, construction, legal, accounting and business services.	2	25 %	8
Cleaning services.	0	0 %	3
Refuse services.	4	67 %	6
Other	10	32 %	31
Total	33	33 %	101

Evaluation of environmental technical specifications and award criteria in the award decisions

The decisions differed a lot regarding the comparisons that the purchasers had done between the tenders, received from the sellers (Table 15). The most common procedure was to say, that environmental aspects were taken into account in the decision, however not showing any points or corresponding comparison between the tenders. However, there were also decisions in which a combined score was given for the environmental aspects, and in three decisions all the environmental aspects were scored.

Table 15. Which environmental aspects made a difference

	Count	Percentage	Total N
Absolute requirements considered in the decision	12	12 %	101
Environmental issues referred to, but no information as to whether they have influenced the decision	5	5 %	101
It was told that environmental aspects were taken into account in the decision, however not showing scores or other comparison between tenders	17	17 %	101
The decision refers to environmental aspects specified in the tender documents. A combined score is presented for environmental aspects	4	4 %	101
The decision refers to environmental aspects specified in the tender documents. Specified scores are presented for environmental aspects	3	3 %	101

Occurrence of the same environmental criteria in tender documents and award decision

The criteria that were presented in the tender documents were not always found in the award decisions (Table 16). However, half or over half of the different purchase criteria were also mentioned in the decisions. The share was highest for the technical specifications (74%).

Table 16. Occurrence of the same environmental criteria in tender documents and award decision

	Count	Percentage	Total N
Environmental qualitative selection criteria	16	57 %	28
Environmental technical specifications	17	74 %	23
Environmental award criteria	26	60 %	43
Environmental contract clauses	4	50 %	8

5. Discussion and conclusions

5.1 Method

The survey's response rate was relatively good. However, with this method, the response rate could, in principle, have reached 100%: purchasers should have been ready to send the tender documents, as they are obliged to send them to every tenderer who asks for them. In practise, the response rate was lower for tender documents and much lower for award decisions.

In order to get a better response rate, it is important to get the national procurement authorities involved in the study, so that there could possibly be a legal obligation for the purchasers to send the documents. In addition, it may be important to stress in the covering letter that the results will not be used to accuse purchasers for a non-legal purchase, nor will individual purchasing units be identified in connection with the details and examples of the tender documents and decisions. Further, a telephone call might be more effective as a reminder than a letter or an email. However they are more time-consuming which must be taken into account in the study plan.

The number of award decision documents received was rather low. There are several possible reasons for this: the organisations may not have wished to send in the documents; our request may have been misunderstood; or environmental aspects may not have played a significant role in the decision-making.

The method used produced general and specific results at the same time, giving a general picture of the state of GPP in Nordic countries and detailed information of the different kinds of environmental criteria in various product groups. It clearly indicated how often environmental criteria are used in the various countries and in different product groups.

On the other hand the method was quite time consuming. Especially the searching of all the environmental criteria in the tender documents as well as interpretation of the decisions documents were time consuming tasks. In the future applications, in order to diminish the resource need of the study, the scope of the study could be limited to include only certain product classes. It is also possible that, when tender documents are requested from the purchasers, a simple inquiry would clarify whether the call for tenders includes environmental aspects. After, tender documents without environmental aspects could be omitted from the study. However, this procedure includes two problems. Firstly, it would cause extra work to the public purchaser, which could diminish the response rate. Secondly, it is not sure that all the purchasers would recognise all the environmental criteria they have in their documents, e.g. a long guarantee. Thus tender documents that include environmental criteria could be omitted from the study.

5.2 Environmental criteria in tender and award decision documents

The tender documents relatively often included environmental aspects specified in different ways. However, the number of well-specified environmental aspects in the tender documents was rather low. When preparing tender documents, public purchasers seek to take environmental aspects into account.

In many cases the award decisions were not based on the environmental criteria that were presented in the tender documents: almost half of the criteria were not mentioned in the decisions.

The results show that it is challenging for the purchasers to identify significant environmental aspects of the goods and services to be purchased, to formulate criteria for environmental aspects in the tender documents and, finally, to draft the actual tender documents.

It is also challenging to justify the decisions by means of environmental aspects.

Purchasers should be provided with training in the preparation of tender documents and in justifying award decisions from the environmental point of view. Instructions, model examples and tools should also be prepared to facilitate the procurement process.

The use of environmental criteria was common in some product groups, in other words, the criteria-use-rate was high (criteria-use-rate= the percentage of tender documents including environmental criteria). In future, it is important to disseminate of good practices and criteria. Such product groups included e.g. 'food products and beverages', 'various type of pulp and paper products', 'office and computing machinery, equipment...', 'repair, maintenance and installation services', and 'refuse services'. At the same time there may be a lack of suitable criteria for some services, so that no criteria were presented in the four tender documents for 'insurance and pension funding services' and only one tender document out of four had criteria for 'postal and telecommunication services'. Better criteria should be established for these product groups.

It is worth noticing that some product groups had low criteria-use-rates, although sound criteria do exist. A good example is provided by 'cleaning service': criteria have been established which deal with e.g. environmentally harmful chemicals in cleaning products, but only one tender document out of four listed environmental criteria.

Environmental criteria were only seldom included in the contract clauses. This can be connected to the fact, that contract clauses were in general poorly presented in the tender documents.

The situation of greener procurement in the Nordic countries

The results of our study showed that, in Denmark and Sweden, public purchasers seek to consider environmental aspects quite often. Over half of the tender documents included some kind of environmental criteria. However, only half of the criteria were well-specified; therefore, attention needs to be paid on the way relevant product-specific environmental aspects are defined and the criteria formulated.

Environmental aspects were also commonly brought up in Finland and Norway, but obviously there is a lot of work to be done to raise environmental consciousness among the purchasers in these countries. Another area that needs attention is the definition of relevant product-specific environmental aspects and the formulation of the criteria.

Surprisingly, taking into account the possible bias of the questionnaires (ch. 1.4), the results of the criteria-use-rate (i.e. how many of the tender calls included environmental aspects) were at least somewhat in line with the results of several earlier studies, done with questionnaires and telephone interviews. One could wait larger criteria-use-rates in questionnaires than in an average, assuming that the purchasers that are the most active in GPP could also be the most active in responding the questionnaires. The earlier EU-study already indicated that in many purchasers in Denmark (40%) and Sweden (50%) do GPP for most of their purchases, meanwhile in Finland the share was as low as 5%. Our study actually gives higher rates for all these countries, which may indicate that the purchasers give higher importance for environmental aspects in the largest purchasers than in the smaller purchases. This may also reflect the fact that the largest purchases are in general better prepared than the smaller ones. In addition, it is also possible that the purchasers do not always recognize that the criteria they use (e.g. a long guarantee) can be regarded as environmental criteria.

The results of earlier national studies showed that environmental aspects were required *always* or *often* in 40% (Denmark), 45% (Norway) and 67% (Sweden) of the purchases. Again, our results show a higher rate for Denmark. For Norway, our study gives only a slightly lower rate (39%) than given by the national study.

Tools for GPP have been easily available at least in Denmark, Norway and Sweden, but evidently, they have been much more popular among purchasers in Denmark and Sweden than in Norway. In Finland, product-specific guidelines and criteria are described in Hymonet, the online database for environmental-friendly procurement, which has been in use since 2001 but has not enjoyed success probably due to the annual user fee. Thus, lack of information and tools can explain the low rate of well-defined criteria in Finland.

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Appendix 1a

COVERING LETTER, FINLAND

PYYNTÖ SAADA TARJOUSPYYNTÖASIAKIRJOJA

Pohjoismaisen Ministerineuvoston rahoittamassa hankkeessa selvitämme, miten ympäristönäkökohdat otetaan huomioon julkisissa hankinnoissa.

Toivomme yhteistyötä kanssanne ja pyytäisimme Teitä lähettämään tarjouspyyntöasiakirjat koskien suluissa olevaa tarjouspyyntöä () viimeistään 13.6.2003 mennessä alla olevaan osoitteeseen. Olisimme kiitollisia, mikäli samassa yhteydessä ilmoittaisitte, milloin teette varsinaisen hankintapäätöksen. Tulemme pyytämään Teiltä hankintapäätösasiakirjat myöhemmin.

Ympäristönäkökohdat julkisissa hankinnoissa –projekti (Miljöhänsyn i offentliga upphandlingar, MILUPP) on Norjan, Ruotsin ja Suomen välinen yhteistyöhanke. Hankkeessa etsitään hyviä julkisen sektorin tavara- ja palveluhankintojen kilpailuttamiskäytäntöjä. Tavoitteena on selvittää, kuinka usein valtion ja kuntien ostajat ottavat ympäristönäkökohdat huomioon hankintoja tehdessään. Samalla luodaan menetelmä ympäristömyötäisyyden mittaamiseksi. Selvitys koskee kynnysarvon ylittäviä hankintoja.

Efektia Oy, joka on Suomen Kuntaliitto –konserniin kuuluva kehittämis- ja konsultointiyhtiö, toteuttaa tutkimuksen.

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Tarjouspyyntöasiakirjat toimitetaan osoitteeseen:

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Ystävällisin terveisin ja yhteistyöstä kiittäen

Päivi Kippo-Edlund

Projektipäällikkö

Appendix 1 b

COVERING LETTER, SWEDEN

BEGÄRAN OM ANBUDSHANDLINGAR

I samband med ett nordiskt projekt som finansieras av Nordiska Ministerrådet kartlägger vi hur miljökriterier beaktas i samband med offentliga upphandlingar.

Vi hoppas Ni vill vara med och samarbeta genom att skicka oss Era anbudshandlingar (gällande Utvecklingsuppdrag för informationssystem) senast den 07 maj 2003 (adress nedan). Vi vore tacksamma om Ni samtidigt kunde informera oss om när Ni kommer att fatta upphandlingsbeslutet så att vi sedan kan be att få beslutshandlingarna av Er.

Projektet Miljöhänsyn i offentliga upphandlingar (MILUPP) är ett samarbetsprojekt mellan Norge, Sverige, och Finland. I projektet vill vi ta fram bästa praxis för konkurrensutsättning av varu- och serviceupphandlingar inom den offentliga sektorn. Målet är att få en uppfattning om hur ofta det ställs obligatoriska miljökrav och miljörelaterade urvalskriterier i samband med offentliga upphandlingar och att utveckla en metod för mätning av miljövänlighet. Undersökningen utförs av Efektia Ab, som är ett utvecklingsbolag i koncernen Finlands Kommunförbund.

Närmare upplysningar ges av:

Projektforskare Henna Hauta-Heikkilä, Efektia, e-post: henna.hauta-heikkila@efektia.fi, tel. +358 9 771 27 61 (på engelska)

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Isa-Marie Bergman, Naturvårdsverket, Sverige, e-post: Isa-maria.Bergman@naturvardsverket.se

Anbudshandlingarna skickas till:

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Med vänliga hälsningar

Päivi Kippo-Edlund
Projektledare

Appendix 1 c

COVERIG LETTER, NORWAY

ANMODNING OM ANBUDDOKUMENTER I FORBINDELSE MED ET NORDISK PROSJEKT OM MILJØHENSYN I OFFENTLIGE ANSKAFFELSER

I forbindelse med et nordisk prosjekt som finansieres av Nordsk Ministerråd, kartlegger vi nå hvordan miljøkriterier blir tatt hensyn i forbindelse med offentlige anskaffelser. Undersøkelsen retter seg mot de offentlige anskaffelser som omfattes av EUs innkjøpsdirektiver og som publiseres i Official Journal.

I denne forbindelse ønsker vi å få oversendt anbudsdokumentene

(for anskaffelser: «Own_language») innen 18. juni. Det vil være ønskelig om vi samtidig kan få informasjon om når valg av leverandør vil bli besluttet, slik at vi på et senere tidspunkt kan etterspørre hvilke kriterier som ble lagt til grunn for valg av leverandører.

Prosjektet miljøhensyn i offentlig anskaffelser (MILUPP) er et samarbeidprosjekt mellom Norge, Sverige, Danmark og Finland. I prosjektet vil vi finne frem til beste praksis når det gjelder kunngjøring og valgkriterier for kjøp av varer og tjenester til offentlig sektor. Målet er å få en oppfatning av hvor ofte det stilles obligatoriske miljøkrav og miljørelaterte valgkriterier i forbindelse med offentlige anskaffelser og til å utvikle en metode for måling av miljøvennlighet. Undersøkelsen utføres av Efektia Ab, som er et forsknings- og utviklingsselskap i konsernet Finlands Kommuneforbund.

Nærmere opplysninger kan fås fra:

Projektforskare Henna Hauta-Heikkilä, Efektia, e-post: henna.hauta-heikkila@efektia.fi, tel. +358 9 771 27 61 (på engelsk)

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Bente Næss, Miljøverndepartementet, Norge, e-post: Bente.Nass@md.dep.no

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Med vennlig hilsen

Päivi Kippo-Edlund
Prosjektleder

Appendix 1d

COVERING LETTER, DENMARK

ANMODNING OM TILBUDSMATERIALE

I forbindelse med et nordisk projekt, som finansieres af Nordisk Ministerråd, kortlægger vi hvordan der bliver taget hensyn til miljøkriterier, når det gælder offentlige anskaffelser.

Vi beder Dem således sende os deres tilbudsdokument (for tilbud «Own_language») senest den 07 mai 2003 (se adresse forneden). Vi ville være taknemmelige hvis De samtidigt ville informere os om, hvornår beslutningen vil blive taget m.h.t. denne anskaffelse, således at vi kan bede om at få beslutningsdokumentet tilsendt.

Projektet Miljøhensyn i forbindelse med offentlige anskaffelser (MILUPP) er et samarbejdsprojekt mellem Danmark, Norge, Sverige og Finland. Projektet sigter på at finde frem til bedste praksis for konkurrence, når det gælder indkøb af varer og service for den offentlige sektor. Målet er at få en opfattelse af, hvor tit der bliver stillet obligatoriske miljøkrav og miljørelaterede udvalgskriterier i forbindelse med offentlige indkøb og at udvikle en metode for måling af miljøvenlighed. Undersøgelsen vil blive udført af Efektia Ab, som er et udviklingsfirma i koncernen Finlands Kommunförbund.

Nærmere oplysninger kan indhentes hos:

Projektforsker Henna Hauta-Heikkilä, Efektia, e-post: henna.hauta-heikkila@efektia.fi, tel. +358 9 771 27 61 (på engelsk)

Projektleder Päivi Kippo-Edlund, Efektia, e-post: paivi.kippo-edlund@efektia.fi, tel.+358 9 771 26 92 (på svensk og engelsk)

Tilbudsdokumentet sendes til:

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Med venlig hilsen

Päivi Kippo-Edlund
Projektleder

Appendix 2. Types of environmental criteria given in the tender documents

At the beginning of the study, the environmental criteria that could be used for different products and services were listed. In addition, a few other criteria found in the examined tender documents were also added to the list.

Environmental criteria	Description
<i>Criteria for qualitative selection</i>	
not specified	Environmental aspects are taken into account in the qualitative selection, but not specified which aspects.
environmental plan	Environmental plan is required.
environment policy	Environmental policy is required.
environmental management measures	Environmental management measures are required.
requirements for subcontractor	Subcontractors are required environmental management measures.
refuge disposal	Environmentally safe refuge disposal is required.
<i>Environmental technical specifications (obligatory requirements)</i>	
energy use	Requirement is presented for energy use. <i>E.g. the copiers must fulfill the requirements of Energy Star label.</i>
Chemical content	Requirement is presented for chemical content.
environmental impact	Requirement is presented for environmental impact.
Guarantee	Requirement is presented for guarantee.
packaging material	Requirement is presented for packaging material.
Package recycling	Requirement is presented for package recycling.
material recycling	Requirement is presented for material recycling.
Catalyzer	Requirement is presented for catalyzer.
bio-degreable substances	Requirement is presented for bio-degreable substances.
Machines	Requirement is presented for machines.
Environmental plan	Environmental plan is required.
eco-labelled products	Fullfillment of ecolabel criteria (all or part of them) are required.
Fuel	Requirement is presented for fuel.
environmental product declaration	Environmental product declaration is required.
environmental training	Environmental training is required.
environmental knowledge	Sufficient environmental awareness of the employees is required.
EIA	Environmental impact assesment is required.
Development plan	Developement plan for the region is required.

<u>Environmental award criteria</u>	
amount of package	The amount of package is applied as award criteria.
recycling of the product	Recycling of the product is applied as award criteria.
package recycling	Package recycling is applied as award criteria.
chemical content	Chemical content is applied as award criteria.
energy use	Energy use is applied as award criteria.
recycled material	Recycled material is applied as award criteria.
environmental product declaration	Environmental product declaration is applied as award criteria.
material intensity	Material intensity is applied as award criteria.
transport equipment	Transport equipment are applied as award criteria.
fuel, lubricant, noise	Fuel, lubricant, noise or other characteristics of the delivery vans are applied as award criteria.
eco-driving	Eco-driving is applied as award criteria.
environmental knowledge	Environmental awareness of the employees is applied as award criteria.
environment policy	Existence of environment policy is applied as award criteria.
environmental management system	Existence of environmental management system is applied as award criteria.
eco-labelled products	Eco-label is applied as award criteria.
environmental impact	Environmental impact of the product or service is applied as award criteria.
environmental aspect	Environmental aspect of the product or service is applied as award criteria.
environmental impact in transport	Environmental impact of transport is applied as award criteria.
transport distance	Transport distance is applied as award criteria.
<u>Environmental contract clauses</u>	
recycling	Recycling of the product purchased is applied as a contract clause.
non specified environmental concern	Non specified environmental concern is applied as a contract clause.

Appendix 3. Grouping of tender documents.

The tender documents were classified into groups according to the subject of the contract (i.e. the purchased product or service). The CPV numbers given in the contract notices were used as a basis for this classification.

Product groups	CPV numbers	Number of tender documents
Food products and beverages	1500	7
Clothing and footwear	1800	4
Various types of pulp, paper and paper products	2100	4
Machinery, equipment, appliances, apparatus and associated products	2900	7
Office and computing machinery, equipment and supplies	3000, 3025	11
Electrical machinery, apparatus, equipment and consumables	3100	4
Radio, television, telecommunication and related equipment and apparatus	3200	4
Medical and laboratory devices and related medical consumables	3300	27
Motor vehicles, trailers and vehicle parts	3400	7
Manufactured goods, furniture, handicrafts and associated consumables	3600	7
Repair, maintenance and installation services	5000	7
Passenger land transport services	6011	15
Postal and telecommunications services	6400	4
Insurance and pension funding services	6600	4
Computer and related services	7200	9
Architectural, construction, legal, accounting and business services	7420	15
Cleaning services	7470	4
Refuse services	9012	10
Product group not specified		4
Other products		45
Total		199

Appendix 4 Country-specific results, tables 5a-9b

Table 5a. Number of tender documents by countries and product groups. Product classes in which N < 4 are included in 'Other'.

	Denmark	Finland	Norway	Sweden	Total (N)
Food products and beverages	1	5	0	1	7
Clothing and footwear	1	3	0	0	4
Various types of pulp, paper and paper products	1	2	1	0	4
Machinery, equipment, appliances, apparatus and associated products	2	2	1	2	7
Office and computing machinery, equipment and supplies	1	4	3	3	11
Electrical machinery, apparatus, equipment and consumables	1	3	0	0	4
Radio, television, telecommunication and related equipment and apparatus	0	1	0	3	4
Medical and laboratory devices and related medical consumables	6	4	5	12	27
Motor vehicles, trailers and vehicle parts	3	1	2	1	7
Manufactured goods, furniture, handicrafts and associated consumables	0	1	3	3	7
Repair, maintenance and installation services	1	1	3	2	7
Passenger land transport services	7	4	0	4	15
Postal and telecommunications services	2	0	1	1	4
Insurance and pension funding services	0	1	0	3	4
Computer and related services	0	1	4	4	9
Architectural, construction, legal, accounting and business services	2	1	5	7	15
Cleaning services	0	0	3	1	4
Refuse services	4	0	1	5	10
Product class not specified	0	0	0	4	4
Other	6	16	12	11	45
Total	38	50	44	67	199

Table 5b. Percentage of tender documents with environmental criteria by product group. Product classes in which N < 4 are included in ‘Other’.

	Denmark	Finland	Norway	Sweden	Total	N
Food products and beverages	100% (1)	80% (4)		100% (1)	86% (6)	7
Clothing and footwear	100% (1)	0% (0)			25% (1)	4
Various types of pulp, paper and paper products	100% (1)	50% (1)	100% (1)		75% (3)	4
Machinery, equipment, appliances, apparatus and associated products	0% (0)	50% (1)	0% (0)	50% (1)	29% (2)	7
Office and computing machinery, equipment and supplies	100% (1)	0% (0)	67% (2)	67% (2)	45% (5)	11
Electrical machinery, apparatus, equipment and consumables	100% (1)	67% (2)			75% (3)	4
Radio, television, telecommunication and related equipment and apparatus		0% (0)		100% (3)	75% (3)	4
Medical and laboratory devices and related medical consumables	33% (2)	25% (1)	80% (4)	67% (8)	56% (15)	27
Motor vehicles, trailers and vehicle parts	100% (3)	100% (1)	0% (0)	0% (0)	57% (4)	7
Manufactured goods, furniture, handicrafts and associated consumables		0% (0)	33% (1)	100% (3)	57% (4)	7
Repair, maintenance and installation services	100% (1)	0% (0)	100% (3)	100% (2)	86% (6)	7
Passenger land transport services	71% (5)	0% (0)		50% (2)	47% (7)	15
Postal and telecommunications services	50% (1)		0% (0)	0% (0)	25% (1)	4
Insurance and pension funding services		0% (0)		0% (0)	0% (0)	4
Computer and related services.		0% (0)	0% (0)	25% (1)	11% (1)	9
Architectural, construction, legal, accounting and business services.	50% (1)	100% (1)	0% (0)	14% (1)	20% (3)	15
Cleaning services			0% (0)	100% (1)	25% (1)	4
Refuse services	75% (3)		100% (1)	100% (5)	90% (9)	10
Product group not specified				0% (0)	0% (0)	4
Other	33% (2)	25% (4)	42% (5)	82% (9)	44% (20)	45
Total	61% (23)	30% (15)	39% (17)	58% (39)	47% (94)	199

Table 6b. Percentage of tender documents with environmental qualitative selection criteria by product group. Product classes in which N < 4 are included in ‘Other’.

	Denmark	Finland	Norway	Sweden	Total	N
Food products and beverages	100% (1)	20% (1)		0% (0)	29% (2)	7
Clothing and footwear	100% (1)	0% (0)			25% (1)	4
Various types of pulp, paper and paper products	0% (0)	0% (0)	100% (1)		25% (1)	4
Machinery, equipment, appliances, apparatus and associated products	0% (0)	0% (0)	0% (0)	50% (1)	14% (1)	7
Office and computing machinery, equipment and supplies	0% (0)	0% (0)	33% (1)	33% (1)	18% (2)	11
Electrical machinery, apparatus, equipment and consumables	100% (1)	0% (0)			25% (1)	4
Radio, television, telecommunication and related equipment and apparatus		0% (0)		67% (2)	50% (2)	4
Medical and laboratory devices and related medical consumables	17% (1)	0% (0)	0% (0)	42% (5)	22% (6)	27
Motor vehicles, trailers and vehicle parts	100% (3)	0% (0)	0% (0)	0% (0)	43% (3)	7
Manufactured goods, furniture, handicrafts and associated consumables		0% (0)	33% (1)	33% (1)	29% (2)	7
Repair, maintenance and installation services	0% (0)	0% (0)	67% (2)	50% (1)	43% (3)	7
Passenger land transport services	57% (4)	0% (0)		0% (0)	27% (4)	15
Postal and telecommunications services	0% (0)		0% (0)	0% (0)	0% (0)	4
Insurance and pension funding services		0% (0)		0% (0)	0% (0)	4
Computer and related services		0% (0)	0% (0)	25% (1)	11% (1)	9
Architectural, construction, legal, accounting and business services	0% (0)	0% (0)	0% (0)	14% (1)	7% (1)	15
Cleaning services			0% (0)	0% (0)	0% (0)	4
Refuse services	50% (2)		100% (1)	100% (5)	80% (8)	10
Product group not specified				0% (0)	0% (0)	4
Others	0% (0)	0% (0)	8% (1)	55% (6)	16% (7)	45
Total	34% (13)	2% (1)	16% (7)	36% (24)	23% (45)	199

Table 7b. Percentage of tender documents with environmental criteria in technical specifications by product group. Product classes in which N < 4 are included in ‘Other’.

	Denmark	Finland	Norway	Sweden	Total	N
Food products and beverages	0% (0)	0% (0)		100% (1)	14% (1)	7
Clothing and footwear	0% (0)	0% (0)			0% (0)	4
Various types of pulp, paper and paper products	0% (0)	0% (0)	100% (1)		25% (1)	4
Machinery, equipment, appliances, apparatus and associated products	0% (0)	50% (1)	0% (0)	0% (0)	14% (1)	7
Office and computing machinery, equipment and supplies	0% (0)	0% (0)	67% (2)	67% (2)	36% (4)	11
Electrical machinery, apparatus, equipment and consumables	0% (0)	0% (0)			0% (0)	4
Radio, television, telecommunication and related equipment and apparatus.		0% (0)		0% (0)	0% (0)	4
Medical and laboratory devices and related medical consumables	0% (0)	0% (0)	20% (1)	33% (4)	19% (5)	27
Motor vehicles, trailers and vehicle parts	67% (2)	0% (0)	0% (0)	0% (0)	29% (2)	7
Manufactured goods, furniture, handicrafts and associated consumables		0% (0)	0% (0)	67% (2)	29% (2)	7
Repair, maintenance and installation services	0% (0)	0% (0)	33% (1)	100% (2)	43% (3)	7
Passenger land transport services	29% (2)	0% (0)		50% (2)	27% (4)	15
Postal and telecommunications services	0% (0)		0% (0)	0% (0)	0% (0)	4
Insurance and pension funding services		0% (0)		0% (0)	0% (0)	4
Computer and related services		0% (0)	0% (0)	0% (0)	0% (0)	9
Architectural, construction, legal, accounting and business services	0% (0)	100% (1)	0% (0)	14% (1)	13% (2)	15
Cleaning services			0% (0)	100% (1)	25% (1)	4
Refuse services	50% (2)		0% (0)	100% (5)	70% (7)	10
Product group not specified				0% (0)	0% (0)	4
Others	0% (0)	6% (1)	8% (1)	55% (6)	18% (8)	45
Total	16% (6)	6% (3)	14% (6)	39% (26)	21% (41)	199

Table 8b. Percentage of tender documents with environmental criteria given in the award criteria by product group. Product classes in which N < 4 are included in ‘Other’.

	Denmark	Finland	Norway	Sweden	Total	N
Food products and beverages	100% (1)	80% (4)		0% (0)	71% (5)	7
Clothing and footwear	100% (1)	0% (0)			25% (1)	4
Various types of pulp, paper and paper products	100% (1)	50% (1)	100% (1)		75% (3)	4
Machinery, equipment, appliances, apparatus and associated products	0% (0)	0% (0)	0% (0)	50% (1)	14% (1)	7
Office and computing machinery, equipment and supplies	100% (1)	0% (0)	33% (1)	33% (1)	27% (3)	11
Electrical machinery, apparatus, equipment and consumables	100% (1)	67% (2)			75% (3)	4
Radio, television, telecommunication and related equipment and apparatus		0% (0)		67% (2)	50% (2)	4
Medical and laboratory devices and related medical consumables	33% (2)	25% (1)	60% (3)	25% (3)	33% (9)	27
Motor vehicles, trailers and vehicle parts	67% (2)	100% (1)	0% (0)	0% (0)	43% (3)	7
Manufactured goods, furniture, handicrafts and associated consumables		0% (0)	0% (0)	67% (2)	29% (2)	7
Repair, maintenance and installation services	100% (1)	0% (0)	33% (1)	0% (0)	29% (2)	7
Passenger land transport services.	71% (5)	0% (0)		25% (1)	40% (6)	15
Postal and telecommunications services	50% (1)		0% (0)	0% (0)	25% (1)	4
Insurance and pension funding services		0% (0)		0% (0)	0% (0)	4
Computer and related services		0% (0)	0% (0)	25% (1)	11% (1)	9
Architectural, construction, legal, accounting and business services	50% (1)	0% (0)	0% (0)	14% (1)	13% (2)	15
Cleaning services			0% (0)	0% (0)	0% (0)	4
Refuse services	75% (3)		0% (0)	100% (5)	80% (8)	10
Product group not specified				0% (0)	0% (0)	4
Others	33% (2)	19% (3)	33% (4)	64% (7)	36% (16)	45
Total	58% (22)	24% (12)	23% (10)	36% (24)	34% (68)	199

Table 9b. Percentage of tender documents with environmental criteria given in the contract clauses by product group. Product classes in which N < 4 are included in ‘Other’.

	Denmark	Finland	Norway	Sweden	Total	N
Food products and beverages	0% (0)	0% (0)		100% (1)	14% (1)	7
Clothing and footwear	0% (0)	0% (0)			0% (0)	4
Various types of pulp, paper and paper products	0% (0)	0% (0)	0% (0)		0% (0)	4
Machinery, equipment, appliances, apparatus and associated products	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	7
Office and computing machinery, equipment and supplies	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	11
Electrical machinery, apparatus, equipment and consumables	0% (0)	0% (0)			0% (0)	4
Radio, television, telecommunication and related equipment and apparatus		0% (0)		0% (0)	0% (0)	4
Medical and laboratory devices and related medical consumables	0% (0)	0% (0)	0% (0)	8% (1)	4% (1)	27
Motor vehicles, trailers and vehicle parts	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	7
Manufactured goods, furniture, handicrafts and associated consumables		0% (0)	0% (0)	0% (0)	0% (0)	7
Repair, maintenance and installation services	0% (0)	0% (0)	33% (1)	0% (0)	14% (1)	7
Passenger land transport services	0% (0)	0% (0)		0% (0)	0% (0)	15
Postal and telecommunications services	0% (0)		0% (0)	0% (0)	0% (0)	4
Insurance and pension funding services		0% (0)		0% (0)	0% (0)	4
Computer and related services		0% (0)	0% (0)	0% (0)	0% (0)	9
Architectural, construction, legal, accounting and business services	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	15
Cleaning services			0% (0)	0% (0)	0% (0)	4
Refuse services	0% (0)		0% (0)	60% (3)	30% (3)	10
Product group not specified				0% (0)	0% (0)	4
Others	0% (0)	0% (0)	8% (1)	27% (3)	9% (4)	45
Total	0% (0)	0% (0)	5% (2)	12% (8)	5% (10)	199