

Environmental management in 9 Swedish real estate companies – learning to use ISO 14001

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1. INTRODUCTION

In order to reach society's environmental objectives (Regeringen 2001) for this century, considerably reducing the environmental impact from the building sector plays an important role. In 1996, Svane conducted a study about environmental practice in 12 housing companies (Svane, 1998). Since then, a new device for handling environmental issues in companies has been introduced, the Environmental Management System (EMS). In 1997, the implementation of an EMS according to ISO 14001 in six member organisations was studied by the Swedish Association of Municipal Housing Companies (SABO, 1998:A). Since then, how has the environmental practice described by Svane (Svane, 1998) been integrated in the EMS?

The EcoEffect tool has been developed at the Royal Institute of Technology (Glaumann, 1999), as a means to calculate environmental effects caused by a real estate. One area for implementation of the tool initially stated was in internal environmental management processes of real estate companies. For this purpose, a study of environmental management in nine Swedish real estate companies has been carried out. The environmental practice has been evaluated using the structure in ISO 14001 as a conceptual model (SIS, 1996). Interviews and, to some extent, review of documents has been carried out and in this paper some preliminary findings will be presented. The emphasis lies on the ISO 14001 concepts of identifying environmental aspects, setting objectives/targets and follow up of environmental results.

2. THE STUDY

What approaches do real estate managers in Sweden apply today to deal with environmental issues? What factors are of importance to handle the issues eco-efficiently, i.e. maximise value output with minimised environmental impact? Can the EcoEffect tool contribute to improve this process? These questions formed the basis of the study. The included companies were primarily chosen because they were known to be among the most progressive concerning environmental practice in the sector. This was a precondition for getting interesting answers concerning eco-efficiency. Four of the companies are municipal housing companies, two are private companies listed on the stock market that manage premises both for housing and commercial activities. One company manages mainly premises for commercial activities and is state-owned. The municipal companies are tied to a certain municipality whilst the others are active mainly in the big city areas of Sweden. The remaining two companies are a municipal administration managing the municipality's real estates and an international company that is specialised on real estate management working for real estate owners. The companies vary in size with the biggest letting nearly twelve times the area space let by the smallest company. Three companies were certified according to the standard ISO 14001.

Primarily the environmental managers of the companies were interviewed in an open ended way, thus being able to get hold of the interviewees comprehension of aspects and still keep the interview to some predestined themes (Lantz, 1993, Kvale, 1997). In some cases, technical and operative staff has been interviewed in order to widen the view on the issues. As a complement to the interviews, internal documents concerning environmental management were reviewed. To get a structure of the study, ISO 14001 has been used as a template.

To this stage only a few dimensions of the interview material have been analysed, giving the themes for this paper. There are a lot of more dimensions that can be discussed using the material. This will be further outlined in a coming report.

3. RESULTS

3.1 Environmental management and environmental practice today

Figure 1 shows a history of four of the investigated companies environmental management practice. These four are well representing the variety of chosen strategies that has been observed in the study. The companies that have a history of environmental practice show a similar pattern. The work often started around 1995 with an environmental practice driven in projects (point 1 in the figure), mainly dealing with the issues coming up on the desk for the day. A main ingredient in these initiatives seem to have been the general rising interest for environmental issues in Sweden, driven mainly by the municipalities in terms of Agenda 21. Normally a person in the company who was concerned with the issues and had the authority to act was involved in initiating these activities.

An obvious overall conclusion is that systematic handling of environmental issues did not begin until this procedure was outlined in ISO 14001 in 1996 (SIS, 1996). The environmental practice has then gradually been incorporated in a structure that is recognised in ISO 14001. The coming sections are more in detail commenting the companies processes concerning controlling in relation to environmental objectives.

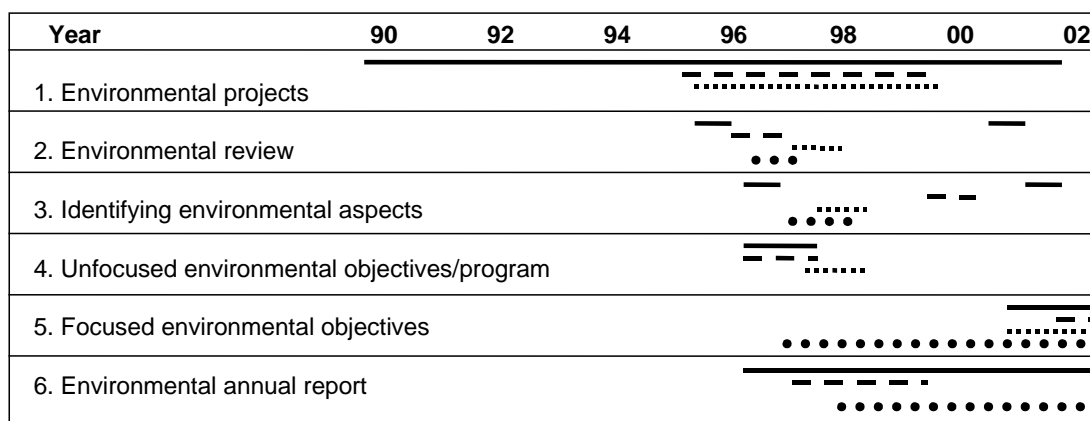


Figure 1 Characteristics of environmental management in four of the studied companies, 1= ——— 2= - - - 3= 4= ●●●●

3.1.1 Identifying and assessing environmental aspects. All interviewed companies have identified significant environmental aspects according to ISO 14001 and this activity is, as shown in figure 1 (point 2 and 3), commonly carried out soon after the environmental review. Table 1 shows the diversity of significant aspects in the investigated companies. Energy use

and built-in substances are examples of aspects identified as significant by many of the companies. More than half of the aspects is, however, identified only by one company. All companies use a method involving setting scores, relating the aspects to various environmental effects, e.g. emissions to air and waste production. In all cases, the person who carries out the assessment sets the scores subjectively. To a limited extent quantitative values on the aspects, such as amount of used energy, are considered in the assessment but the aspects are more seldom related to real environmental effects in a systematic way. Other driving forces, such as saving money or stakeholder demands can also play a significant role. In seven of the nine companies, the assessment methods were developed by a consultant and the environmental managers were therefore not very familiar with the method of assessment:

“I have not familiarised myself with this method because I considered it too confusing. At first, I read it, but I decided to make a new one, one of my own.. “

One interesting remark is that the majority of the interviewed managers were bringing up indoor environment as an important issue. Still, only one of the companies defines this as a significant environmental aspect. The same company identifies CO₂-emissions as an aspect, which involves energy use both for heating and transports. Earlier this company assessed the aspects in a similar way as the rest of the companies do today, i.e. as energy use. This can be seen as a development of the assessment. No significant differences between the companies are revealed in assessing environmental aspects, apart from the private companies extended focus on built-in environmental problems, like PCB. A reason for this can be that it is seen as a strategic issue within their business concepts, including developing the properties.

Table 1 Significant environmental aspects and areas for environmental objectives according to document review. Each letter signifies a company in the study. Only documents from five companies were available.

Environmental aspect	Companies that identifies this aspect as significant.	Companies that have an environmental objective concerning this aspect.
Built in hazardous materials and substances	A, B, C, D, E	A, C, D, E,
Use of materials	A, C, D, E	A, B, D, E
Use of energy for heating	B, C, D, E	B, C, D, E
Use of electricity	B, C, D, E	B, C, E
Waste production – from construction	A, C, E	A, B, D, E
Waste production – from customers	B, D, E	D, E
Transports in service	B, D, E	B, D, E
Hazardous waste	A, D	
CO ₂ - emissions to air	A	A
Indoor environment	A	A
Environmental information to customers	A	A, C, D, E
Use of chemicals	B	B
Transports to and from work	B	
Outdoor environment	B	
Purchase of services	D	D
Use of energy air conditioning	E	E
Clients with environmentally risky activities	E	E
Use of water	E	C

3.1.2 Setting environmental objectives and targets.

Figure 1 (point 4 and 5) shows that a typical procedure in the companies which had an environmental practice for some years, is that the work considering targets and measures has become more structured and focused:

” if you take a look in an old environmental programme, one has not really understood what objectives really are... ...I mean, the environmental programme consisted of 28 pages”

The overall impression according to table 1 is that objectives are formulated for significant environmental aspects. However, this is not always the case. It might seem surprising, why carry out the assessment and then not integrating it in the system? One reason seems to be that one wants to follow the structure of ISO 14001, but has not yet found the appropriate way to implement it in the organisation. The assessment of environmental aspects is, for instance, viewed as too theoretical by many of the interviewed. Another reason is that routines are introduced as a way of managing significant aspects instead of relating the aspects to certain objectives. An interesting remark is that four out of nine companies have an objective concerning informing customers. Many interviewees state that they consider environmental information to tenants an important issue for being successful in the environmental practice.

There are a wide variety of formulations of objectives within the companies. Even with some years of ISO 14001, measurable targets are not a rule. Nevertheless, there are some companies that are strict in using measurable objectives and targets. The opinion that it is difficult to measure environmental performance is, however, widespread. Some prefer thus more qualitative targets that resemble a checklist of activities that can be ticked off rather than targets one can struggle towards.

3.1.3 Follow-up of environmental performance. Figure 1 (point 6) shows that making annual environmental reports is not frequently carried out. Last year, only one of the companies in the study made a separate environmental report for external distribution. Three years ago, this was done by at least three of the studied companies. Today, the environmental report is to a greater extent integrated in the annual report of the company, bringing up more or less the same issues but on fewer pages. The EMS is in the majority of the companies integrated in the rest of the business programme when it comes to follow-up. Thus, the common pattern is that operative staff is more involved in measures follow-up, executives in target achievement and the environmental manager in environmental performance follow-up.

Follow-up of environmental performance indicators is not frequently carried out except for in energy saving, such as kWh/m². This indicator gives us only the quantitative aspect of energy use. Indicators showing the effects on the environment (i.e. also incorporating the qualitative aspect) have, according to what I have seen in the interviewed companies, only been used in two cases. One of the companies has just introduced an objective concerning reduction of CO₂-emissions. This is interesting but an exception in the study. Despite the fact that some of the municipal companies participated in a project a couple of years ago, the purpose of which was to develop a set of environmental performance indicators for the sector (SABO, 1998:B), they are not using the proposed ones. The interest for these issues is generally bigger among the interviewed managers who are in the top of the organisational hierarchy.

According to the interviewees, the reason why follow-up of environmental performance is not more developed is that data is scarce. In some cases, new routines have been introduced, for instance, to get hold of fuel consumption for transports, but in a majority of the companies the methods for data compilation are weakly developed. Still, one of the interviewees mentions that they do produce a large amount of data when this is asked for, in their case by the stock market (the Folksam index, 2002). This implies that the resources that have to be spent on finding data are raised only if there are strong incentives.

3.2 Environmental management in a business context

To be able to implement an EMS successfully in a company it is necessary to look upon it in a business context. Driving forces, obstacles and important factors for success are issues that thereby should be taken into account.

Apart from the overall concern for the environment in society, which seems to have been the sparkle for igniting the interviewed companies environmental practice, no external driving forces are experienced strong today. Nevertheless, for the companies listed on the stock market something that seem to be dawning is the interest of shareholders. Tenants could be a group that one would expect to pose demands on the real estate manager. The only demands that are mentioned, however, are wishes to get recycling systems for waste handling. If demand is weak, why then choose to introduce an EMS? All interviewees stress that they find the EMS to be a natural development for a more focused environmental practice. A way of working that sometimes also reinforces management processes in general in the company. But, the lack of driving forces is probably the reason why there are only a handful companies in this sector that have chosen to certify themselves according to ISO 14001.

The external demands from tenants and shareholders mentioned above can be examples of two different ingredients that the EMS must deal with to be efficient. When it comes to practical demands from tenants, today's trend of customer focus can probably be positive. The trend includes using well-educated staff employed directly by the company. This may strengthen the company's possibilities of reducing environmental impact caused by the users demands and behaviour through competent employees keen on informing tenants. On the other hand to meet external demands about environmental performance, calls for methods for compiling and assessing data about the company's environmental performance.

From the point of view of the environmental manager, organisational matters are stressed as important for the EMS to be efficient. Especially three aspects are mentioned; 1) the willingness of executives, 2) budget and authority of the environmental manager and 3) existing communication patterns in the organisation that support the EMS, especially concerning routines and integrating the environmental programme in the rest of the business programme. If this is not the case, the operative environmental practice is complicated and the status of the environmental issues runs the risk of becoming debilitated. The most dominant obstacle for successful environmental practice in the company mentioned by the interviewed managers is the increasingly strained organisations:

“Thus, the most difficult part is the hard work to get the environmental message spread in the organisation. That everyone just feels “no, no, not any more, we cannot cope with any more”

Other obstacles mentioned are when environmental measures or targets conflict with profit or quality of indoor environment. However, the results indicate that employees, on all levels, who have a basic competence and are well informed on environmental issues, do not experience these conflicts as strong. Related to this, lack of knowledge about environmental issues is a difficulty stressed by at least half of the interviewees. How to act, to know what decision is the best in environmental terms and to be updated on laws and regulations, is considered as difficult.

4. DISCUSSION

The results indicate that we may consider the introduction of the EMS as a process. If, for instance, an environmental review is made as a starting point for a company's environmental

practice, a lot of urging problems or aspects to deal with will be revealed. An EMS according to the ISO 14001-standard focusing on a few objectives can then be experienced as a blunt tool in such an early phase of the process. When the organisation later starts to define continuous improvement (SIS, 1996), measurable and focused objectives are advancing. If so, this will lead to a need for performance indicators as a means of follow-up and comparison that can be communicated both internally and externally. If the incentives exist, gathering data needed for follow-up does not seem to be a big problem. But, executives' environmental commitment resulting in resources for the environmental manager is a main issue if the company is going to reach this phase of the EMS process. This leads us to one of the initial questions of the study. The study was carried out to answer if and in such a case how the EcoEffect tool might be used in an EMS in a real estate company. The results suggests that it is very important how and by whom it is used. The companies in the study are still in a beginner's phase concerning EMS, when a tool like EcoEffect hardly is demanded for. Further in the EMS process there are some areas where the tool, if developed, might be an aid. It may concern assessing environmental aspects, relating environmental targets to company activities, give proposals of environmental objectives and follow up environmental performance. To increase the knowledge about the environmental impact of the company's activities is essential for the environmental practice to be successful. EcoEffect may also have a pedagogic value in this process. These are issues that will be dealt with further in this research project.

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