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Keynote Speech

Environmental Accounting for Corporate Management and Environmental Conservation

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Under the theme of "Cutting Edge of Environmental Accounting for Corporate Management and Environmental Conservation -Environmental Accounting in Japanese Corporate Management and Potentialities of Material Flow Cost Accounting-" this international symposium on environmental accounting will focus on two subjects : one is the actual status of and further issues for Japanese environmental accounting, and the other is material flow cost accounting, which is one of the new major tools for environmental management accounting. Based on these subjects, I will talk about the meaning of environmental accounting in present society and its potentialities, as well as the contents and purpose of today's symposium.

I am very pleased that so many participants have come to the Osaka International Convention Center all the way from Tokyo, Nagoya and many other parts of Japan. I believe the large attendance indicates increasing awareness of the urgency and importance of the theme of this symposium.

To begin with, I would like to briefly explain the environmental accounting practices in Japan and describe what environmental accounting is, although many of you may already know it well.

Environmental Accounting Mechanism

It was a long time ago that the concept of environmental accounting was developed in this country. The study meeting held by the Environment Agency (present Ministry of the Environment) in 1997 was probably the first governmental initiative on environmental accounting. Since then nearly six years have elapsed, many companies have already introduced environmental accounting practices and will further develop and promote the tool.

At this time, however, we need to think anew about what the important functions of environmental accounting are, how it differs from other methods or tools for environmental conservation, and what the distinctive characteristics of environmental accounting are and how we should integrate it into environmental conservation.

I consider that one of the most important functions of environmental accounting to be the integration of environmental conservation and economic activities. If we are to pursue sustainable development while maintaining the current economic system, harmony between the environment and economic activities will be absolutely essential. Such assertions have been made repeatedly on every possible occasion. Even so, we have been significantly slower in developing tools for the integration of environmental and economic activities than in producing tools exclusively for economic development or environmental conservation.

The environment and economy cannot be integrated in essence, without establishing the tools forintegration in companies, which play a central part in the development of the current economic system. In that sense, environmental accounting is one of the tools that integrate environmental and economic activities, and it can be applied to companies, local governments and other organizations. The functions of environmental accounting can be roughly divided into two categories : external environmental accounting, which is designed to disclose information, and internal environmental accounting, which is managed within companies.

In Japan, many initiatives on environmental accounting have mainly been implemented by government agencies. The Ministry of the Environment (MOE) issued Guidelines on Environmental Accounting in 2000 and its revised version in 2002. The MOE's comprehensive guidelines emphasize external disclosure, but at the same time reflect the trend toward internal management. The Ministry of Economy, Trade and Industry (METI) has continued research on internal management-oriented environmental management accounting, and issued the Environmental Management Workbook in 2002. The MOE focuses on external disclosure and also deals with internal management, whereas the METI emphasizes internal management. Overall, the governmental initiatives support the general trend of environmental accounting.

Now, I would like to talk about how environmental accounting is positioned in corporate management. Please take a look at Chart 1. Environmental management tools are categorized into two major types: those applied to companies or production sites and those used for products. The EPE, or Environmental Performance Evaluation, and LCA, or Life Cycle Assessment, are designed to evaluate environmental performance or product-related environmental load. In short, they are tools for recognizing, measuring and evaluating environmental information. The next step would be to reduce the environmental load. The tools for this purpose include EMS, or Environmental Management System, at the company level and DfE, or Design for Environment, at the product level. If a company successfully reduces the environmental load using these methods, the information will be disclosed in the form of an Environmental Report. As for products, environmental labels will be attached to the products as a means of external disclosure. Thus, the environmental management tools are interlinked in a comprehensive manner.

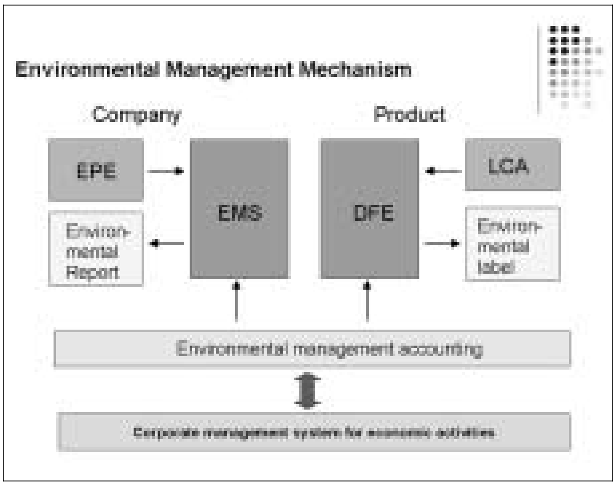

Chart 1

As you can see, a whole system of environmental conservation tools has been established, although the individual tools leave much to be improved. Many of the tools I have explained are standardized in the ISO 14000 series or specified by guidelines, as you know.

Prior to a company introducing this complete set of environmental conservation tools, however, the question lies in the fact that there is no link connecting this system with the corporate management system for economic activities. Therefore, it is not clear for companies how large an effect the introduction of the ISO 14001 system has in terms of corporate management, or whether it is financially viable to introduce DfE and LCA to manufacture products that will lead to a reduced impact on the environment. That is why there have been debates over the effectiveness of LCA.

It is necessary to connect the environmental conservation system and the corporate management system for economic activities. Environmental accounting (including environmental management accounting) precisely serves this purpose. I believe that environmental accounting should function as a link between the two systems. In that sense, environmental accounting is distinguished from ordinary environmental conservation tools, let alone the corporate management system for economic activities.

Another important point is that an environment-conscious corporate management cannot be achieved by companies alone. Companies will promote such management, if their environmental conservation activities lead to cost reductions or are certain to produce a profit. However, as is often the case, environmental conservation activities result in a cost increase.

Unless there is a market mechanism that supports companies willing to pursue environment-conscious corporate management in place, it is difficult for a company to commit to carry out such management, or at least in a sustained manner. In manufacturing products, the use of non-hazardous substances in place of hazardous ones will increase costs, since non-hazardous substances are priced higher due to their lack of demand. Now, as more and more companies begin to use the material, the cost will eventually be lowered and the products will become profitable. However, companies with short-sighted business philosophies cannot wait that long. Without support from relevant markets, companies, as profit-oriented organizations, cannot easily put such management into practice, even if they are encouraged to do so through slogan campaigns.

Therefore, the markets for goods and services, the labor market, and the financial market should support companies that are addressing environmental issues. For that purpose, companies need to disclose information to these markets, and the stakeholders should make decisions through the markets. In that process, external environmental reporting will play a very important role. These relations are shown in Chart 2.

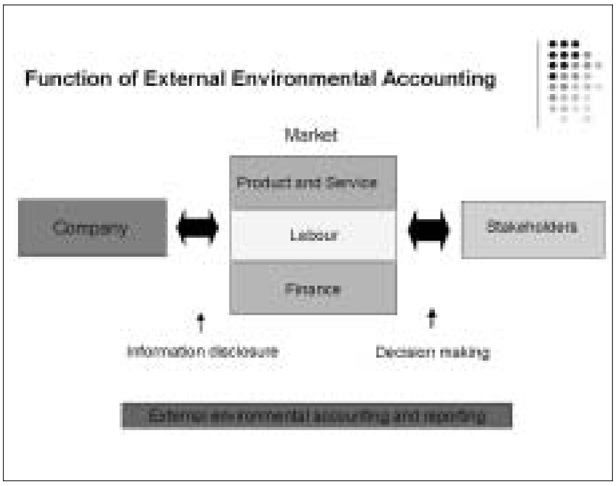

Chart 2

You may think that one element is missing in this chart: where are the citizens or society? Society is outside this chart. Market activities carried out by companies inevitably impose an external burden, or an impact on the environment. To avoid such social loss, the burden should be internalized through the markets. In other words, the external environmental burdens should be absorbed in the market mechanism. To this end, we need to screen environment-conscious companies through the markets to support them. Environmental accounting and reporting are important tools for that purpose.

Actual Status of Japanese Environmental Accounting

Now, I would like to talk about environmental accounting practices in Japan and the relevant issues that companies are currently facing. Although Mr. Miyoshi from the Ministry of the Environment reported earlier that 600 companies have published environmental reports and 500 companies have disclosed environmental accounting information, our survey showed slightly lower figures in both areas. The MOE conducted a questionnaire survey to obtain the data, while we collected and analyzed the environmental reports actually published. In addition, the MOE covered a larger number of subjects by sending questionnaires to all listed companies. That explains the differences.

According to our survey, of the 1,430 listed companies on the first section of the Tokyo Stock Exchange, approximately 20% of them published environmental reports in both 2000 and 2001. If the trend continues, the target of 50% for 2010 will be achieved. Although the rate of companies that disclose environmental accounting information is low overall, the ratio of companies disclosing environmental accounting information to the companies that publish environmental reports is very high. Approximately 80 % of the 318 companies disclose environmental accounting information. Accordingly, if 50% of the listed companies come to publish environmental reports, the rate of companies that disclose environmental accounting information will also reach nearly 50%.

Currently, companies are not required by law to disclose environmental accounting information in their environmental reports. The guidelines issued by the MOE are intended merely for voluntary efforts, that is, companies do not have to comply with them. Our survey revealed, however, that a large number of companies comply with the MOE guidelines and this number is a sharp rise from figures for fiscal 2000 and 2001.

We surveyed companies that introduced an environmental accounting system to find out what benefits have been brought about by environmental accounting and what issues they are currently facing. The survey was conducted by the IGES Kansai Research Center about a year ago in October 2001 by sending questionnaires to 216 companies that we recognize as a company disclosing environmental accounting information. We received valid answers from 159 companies. It is unusual that more than 70 % of the target companies returned their questionnaires and our figures suggests that the companies are not only cooperative, but also very much interested in the issue.

According to the findings, environmental accounting has two functions: external reporting and internal management. When asked which of them they thought was more important, the largest number of the respondents chose the neutral answer "Same," while more than 40% responded "External reporting much more important" or "External reporting more important," with approximately 20% thinking that internal management was more important. The results show that Japanese companies currently tend to think external reporting is more important.

When asked what benefits were brought about by the introduction of an environmental accounting system, the largest number of the respondents cited "Understanding how much environmental cost was incurred." This is a natural result, given that the primary objective of the environmental accounting guidelines is to assess environmental cost. The second largest number of respondents, or 56%, chose "Improvement of corporate image from disclosure." Since the MOE guidelines set forth external disclosure as one of the objectives of environmental accounting, the fact that the majority of the companies surveyed recognized the benefits of environmental accounting in this regard indicates a certain measure of success.

Meanwhile, only 35.8% cited "Useful for internal environmental management." Our survey revealed that there were some issues to be addressed or room for improvement in terms of internal management.

To clarify why companies did not think environmental accounting was useful for internal environmental management, we asked them what sort of environmental accounting system they employed for internal management. Of them, 42.1% replied that they employed the "Same as environmental accounting for external disclosure," and 28.9% used "Modified environmental accounting for external disclosure." In short, approximately 70% of the companies apply an environmental accounting system for external disclosure to internal management. On the other hand, only 5.7 % responded that they use "Some different sort of environmental accounting from that of external disclosure." There seems to be a problem in this regard.

We can probably take two approaches toward solving this problem. Firstly, we may need more thoroughgoing guidance or instruction to let companies know to what extent and how an environmental accounting system based on the MOE guidelines can be useful for internal management. The MOE is currently conducting study sessions on environmental accounting. Secondly, it is also necessary to simultaneously develop a new environmental accounting tool while using existing ones. Instead of a single tool for environmental accounting, we need to develop various tools for use for different purposes.

Summing up what I have explained so far, I would like to cite the characteristics of Japanese corporate environmental accounting. It is heavily oriented toward external environmental accounting, under the strong influence of the MOE guidelines, and underdeveloped for the function of internal management. Based on these characteristics, we can identify two issues to be addressed. One is how we should refine ongoing external environmental accounting. As far as I know, there is no other country in the world where companies disclose environmental information, particularly on costs, in their environmental reports in such a systematic and comprehensive manner as in Japan. We need to develop this tool, the details of which will be given by Mr. Sawami from the Ministry of the Environment. The other task is the development of environmental management accounting tools so that environmental accounting will become useful for internal management. Eventually it will be necessary to integrate external environmental accounting and internal environmental management accounting.

Improvement of the MOE guidelines is one of the topics for discussion this morning. Mr. Sawami will be giving a presentation on the efforts of the Ministry of the Environment and we will later discuss the issue. Since the Japanese Institute of Certified Public Accountants also puts great effort into the promotion of disclosure of environmental accounting information, Eriko Nashioka, Research Fellow of the IGES Kansai Research Center, will talk about environmental accounting as an expert in accounting. By successfully addressing these two issues, I believe, we will be able to create movement toward the development of a standard model for international communication. This is considered to be a rather mid- to long-term task.

Further Issues for Environmental Management Accounting

As for environmental management accounting tools, I think, we need to take different approaches. In the afternoon, we will discuss environmental management accounting, focusing on material flow cost accounting as one of such tools.

Environmental management accounting tools can be roughly divided into two types. The first one can be described as "Environmental + Management Accounting." Management accounting has been introduced in companies long before the establishment of environmental accounting. This type of environmental management accounting was developed by modifying conventional management accounting to cope with environmental issues. The second type can be described as "Environmental (Management) Accounting." It includes conventional management accounting in its own database. These are two types of environmental management accounting.

To be more specific, "Environmental + Management Accounting" covers environmental investment appraisal, environmental quality costing, environmental target costing, and environmental corporate performance evaluation. We do not have enough time today to explain each of these items however, they are described in detail in the Environmental Management Workbook published by the Ministry of Economy, Trade and Industry. If you are interested, please pick up a copy of that book for further details.

In the afternoon, rather than dealing with environmentally modified management accounting, we would like to discuss environmental accounting that includes management accounting, or Environment (Management) Accounting. Although it is a new tool, the introduction of this type of environmental accounting will enable a form of management that includes all conventional systems.

One example of such accounting tools is material flow cost accounting, one of the main topics for today's symposium. In the second session, Professor Nakajima and Dr. Wagner, who are leading experts on this field in Japan and Germany, respectively, will explain material flow cost accounting in detail, and we will have discussions following the presentations on findings from the trial introductions in Nippon Paint Co., Ltd. and Shionogi & Co., Ltd. in a collaborative project with IGES Kansai Research Center.

In the United States, researchers led by Dr. Pojasek, have developed a method called Process Mapping, in which the production process is broken up to determine the direction of improvement by focusing on material flow, instead of cost accounting. This method was developed through pollution prevention activities carried out with the assistance of the U.S. Environmental Protection Agency (EPA). Judging from what we discussed yesterday, beyond pollution prevention, this method pursues the improvement of the entire process, and can be regarded as an environmental accounting tool in a broad sense that includes management. We will discuss these two topics in the afternoon.

As I mentioned earlier, we will discuss environmental accounting from two perspectives today. In the morning, presentations will be given on the efforts by the Ministry of the Environment and the Japanese Institute of Certified Public Accountants, and we will discuss the function of external disclosure of environmental accounting. In the afternoon, the discussion will focus on material flow cost accounting with the main objective of exploring potentialities of environmental management accounting.

If we can successfully propose a new tool which integrates these two functions as an outcome of today's symposium, this will have been a very productive and proactive symposium. At this stage, however, it is more likely that the participants will end up presenting the forefront of their respective initiatives and discussing possible interrelations. It is likely that the levels of development of these tools and the status of their introduction in companies will also have relevance.

In recent years, environmental accounting has been attracting increasing attention in Asia. Among other things, material flow cost accounting and pollution prevention methods can be transferred and applied to Asian countries. I would like to add that introduction into small- and medium-sized enterprises will also be a new task.

Although we only have a limited time, I hope we will discuss as many issues as possible today to contribute to the future development of environmental accounting. I would like to conclude my speech by reiterating my appreciation for your participation. Thank you for your kind attention.