

# ENVIRONMENTAL ACCOUNTING IN JAPAN – RECENT EVIDENCE

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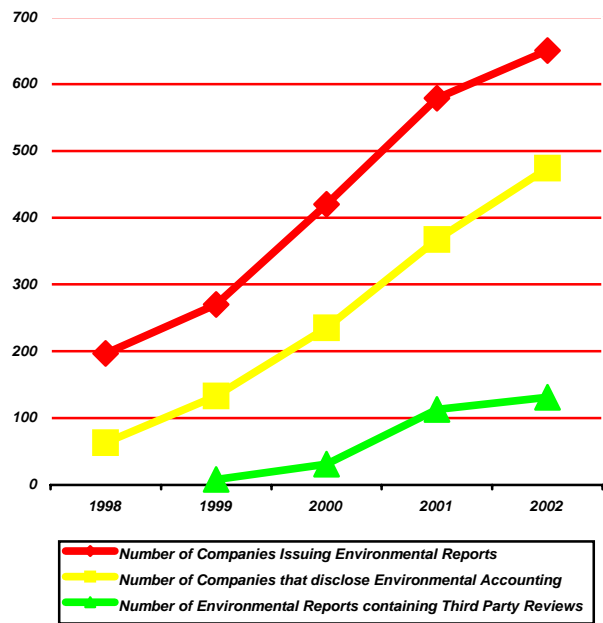
## 1. Introduction

This paper presents an overview of environmental accounting practices in Japan, a country where specific guidance has been provided by the government. It follows the framework outlined in the paper suggested by Burritt, Hahn and Schaltegger (2002). The following are addressed in turn: trends in environmental reporting and environmental accounting disclosure in Japan, factors leading to the upward trend and future challenges for environmental management accounting.

## 2. Trends in Environmental Reporting and Environmental Accounting Disclosure

Since 1998, there has been a rapid increase in the number of companies publishing environmental reports in Japan. According to the Japanese Ministry of Environment (MOE 2003a) 650 listed and unlisted companies published environmental reports in 2002. Moreover, 251 additional companies signalled their intention to publish environmental reports in 2002, raising expectations that the number of Japanese corporate environmental reports will rise to about 1,000 per annum in near future (Figure 1).

Also, a growing number of companies have introduced monetary environmental accounting information in their environmental reports. In fiscal year 2002, 474 companies disclosed environmental accounting information (Figure 1). An increasing trend is clearly observable. It is reported that 573 companies, including those that do not disclose the information generated by such a system, have introduced monetary environmental accounting (MOE 2003a).



**Figure 1: Trends in Japanese Environmental Reporting and Monetary Environmental Accounting Disclosure.**

Source: adapted from: MOE (2003a).

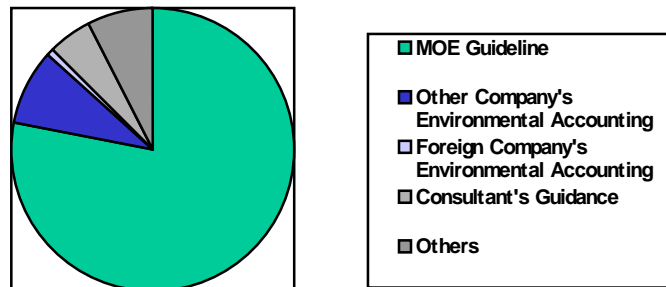
### 3. Factors Contributing to the Upward Trends

The upward trends in environmental reporting and environmental accounting seem likely to continue in Japan for several reasons.

The first and main driver of environmental reporting and environmental accounting disclosures is *government initiatives*. With growing concern about the need for corporate environmental reporting, the Japanese Ministry of Environment has published *Environmental Reporting Guidelines: Guidance for Publishing Environmental Reporting: Fiscal year 2000 version* (MOE 2001). These guidelines outline the principles of reporting, the structure and the anticipated contents of environmental reports. The guidelines act as an important motivator for many companies that publish environmental reports. In September 2002, the MOE released an Environmental Report Database (see <http://www.kankyohokoku.jp/> (only in Japanese)) which makes it possible to find out whether companies disclose the specific items recommended under the MOE Environmental Reporting Guidelines, as well as environmental performance data for each company. Japanese concern for the

environment is also supported by publication of the *The Basic Plan for the Promotion a Recycling-Oriented Society* (MOE 2003b), which aims to achieve environmental report publication by 50% of the listed companies and 30% of the non-listed companies with more than 500 employees by 2010. In response to this Basic Plan, the MOE has published the exposure draft of a new *Environmental Report Preparation Standard* (MOE 2003c) and *Environmental Reporting Guideline* (MOE 2003d) in December 2003.

The MOE also publishes Environmental Accounting Guidelines that are periodically revised. In May 2000, MOE released the *Developing Environmental Accounting Systems— year 2000 report*, which was a revised version of the 1999 *Draft Guidelines—Disclosing Environmental Accounting Information*. Later, as a result of the rapid progress of practice, MOE again revised its guidelines and published *Environmental Accounting Guidelines—2002 version* and the *Environmental Accounting Guidebook* (MOE 2002a) which includes questions and answers and various case studies to help companies understand the guidelines - see <http://www.env.go.jp/en/ssee/index.html>.



**Figure 2: Companies use of guidelines when they establish their environmental accounting system.** Source: Nashioka (2003).

The MOE Environmental Accounting Guidelines provide information about the system of environmental accounting, the components that are included in environmental accounting (environmental conservation costs expressed in monetary terms, environmental conservation benefits in physical terms and economic benefits expressed in monetary terms), how to measure these environmental costs and benefits and, finally, the disclosure format.

The *influence of the MOE guidelines* has been examined recently by Nashioka (2003). Of the companies that disclose environmental accounting, 78% mostly use the MOE guidelines when they establish their environmental accounting system (see Figure 2). Guidelines from other Japanese companies and from overseas companies are also used.

Figure 2 shows that, even though the MOE guidelines are not mandatory, they have a large influence on corporate environmental accounting practice in Japan. Paku (2003) has examined the link between corporate monetary environmental accounting disclosure based on the MOE guidelines and corporate capital costs. His research concludes that monetary environmental accounting information disclosure is correlated with lower corporate capital costs. Base on this result, if it becomes widely accepted, it might lead us to expect further increases in corporate environmental accounting disclosure.

Second, increasing numbers of companies have acquired ISO14001 *certification of their environmental management systems* and this also is related to corporate environmental disclosure. In Japan, at 31 August 2003, 12,725 companies were certified as ISO14001 compliant, which is the largest number for any country in the

world. The trend remains upwards. Kokubu and Nashioka (2003) recently conducted research that establishes the connection between ISO14001 certification and the introduction of environmental accounting. After certification, more ISO14001 companies disclose their environmental activities and performance through their environmental reports than non certified companies (see Figure 3).

Figure 3 illustrates that the proportion of companies introducing environmental accounting by those having acquired ISO14001 certification is 63.1%, while the proportion that introduce environmental accounting by those that have not acquired ISO14001 certification is only 11.1%. This correlation between the introduction of corporate environmental accounting and ISO14001 certification indicates another potential driver of further adoption of monetary environmental accounting as certification numbers continue to increase.

	Introduction of environmental accounting	Non-introduction of environmental accounting
Acquisition of ISO14001 certification	63.1%	36.9%
Non-acquisition of ISO14001 certification	11.1%	88.9%

**Figure 3: Relationship between ISO14001 certification and the introduction of environmental accounting in Japan.** Source: Kokubu and Nashioka (2003).

Third, the *credibility of environmental information being reported* is increasing through higher numbers of third party

reviews being undertaken. This is likely to increase demand for environmental information, once its credibility becomes more widely recognized. In 2002, of the 650 companies that published separate environmental reports, 131 companies (20.2%) include third party reviews (see also Figure 1). The figure has increased rapidly from a low base in 1999. Moreover, 191 companies (29.2% of the sample) indicated that they plan to include such reviews in the future (MOE 2003a). Note, however, that there is considerable variety in the type of institutions that review environmental reports. It includes: accounting firms, academics, environmental consultants and non government organizations. Such variety may reduce the value of the review statements, in the absence of general agreement about review processes, or the intent of the reviews. To counter this problem the MOE has published the exposure draft of *Environmental Report Review Standard*, (MOE 2003e) in December 2003, which addresses the qualifications of the reviewer, the review processes, procedures and the form of assessment report. The Japanese Institute of Certified Public Accountants (JICPA) is expected to release guidelines for environmental report third party reviews in the same month.

Fourth, *environmental reporting award systems* contribute to the increase in corporate environmental reporting. In Japan, there are two main environmental reporting award systems: one is the “Environmental Report Award” hosted by Global Environmental Forum and sponsored by the MOE. A second is the “Green Reporting Award” joint-hosted by the Green Reporting Forum and Toyo-Keizai Inc. These award systems were established to promote environmental information disclosure and environmental communication and to

promote corporate voluntary environmental protection activities.

Fifth, the *growth of eco-funds and socially responsible investments* encourages corporate environmental information disclosure. In Japan, since the first eco-fund was established in August 1999, there are now eleven funds at nine financial institutions which managed a total of approximately AU\$1 billion, in February 2003. As each eco-fund uses corporate environmental reporting and environmental accounting data for the evaluation of corporate environmental performance, environmental information disclosure is necessary for companies that wish to be included in eco-fund portfolios as well as traditional fund portfolios. Through these eco-funds and socially responsible investments, financial businesses value corporate environmental protection activities that serve as an incentive to promote further corporate environmental activities and their disclosure (MOE 2002b).

Sixth, in Japan, *ratings agencies* encourage disclosure of environmental accounting information by companies wishing to improve or maintain their ratings. There are several environmental rating mechanisms and agencies, for example, “Environmental Management Rating” by the Sustainable Management Forum, “Environmental Management Ranking” and “Environment Brand Ranking” by Nikkei, and, “Corporate Environment Report Ranking” by Deloitte Touche Tohmatsu. Ishikawa and Mukoyama (2003) have examined the effects of environmental rating information on the value of corporate share prices in Japan. This research demonstrates that environmental rating information has been incorporated into the value of company share prices since the end of 1999. As environmental reporting and environmental

accounting disclosure form part of the environmental ratings, it would appear that these research results add another reason to expect further increases in corporate environmental reporting.

Finally, another reason for the publication of separate environmental reports comes from the increased pressure for corporate social responsibility. In the past few years, many environmental reports have expanded their contents to include additional information about the social activities of companies. These practices have been influenced by the *Global Reporting Initiative (GRI) Sustainability Reporting Guidelines*. In 2002, of the 650 companies that published environmental reports, 187 (28.8%) of companies included both social and economic information in their environmental reports. Moreover 297(45.7%) of companies signalled their intention to include social and economic information in future environmental reports (MOE 2003a). In December 2002, the Ministry of Economy, Trade and Industry (METI) established a Corporate Social Responsibility (CSR) Standard Committee. It is expected that this move by METI will add support for corporate triple bottom line reporting. The current situation in Japan is that environmental reporting has taken off in a dramatic way. Also, the first steps towards sustainability reporting are emerging, based on the GRI guidelines.

These findings and tendencies (see Figure 4) are likely to provide further impetus to environmental reporting and environmental accounting information disclosure.

In parallel with the spread of environmental accounting disclosures in environmental reports, there is growing interest by management in making good use of environmental accounting information to

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| <ol style="list-style-type: none"><li>1. Government initiatives-MOE Guidelines</li><li>2. Increase in ISO14001 certification</li><li>3. Higher numbers of third party reviews</li><li>4. Environmental reporting award systems</li><li>5. The growth of eco-funds and socially responsible investments</li><li>6. Environmental ratings</li><li>7. The pressure for corporate social responsibility</li></ol> |
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**Figure 4: Factors encouraging the upward trend of environmental reporting and environmental accounting disclosure in Japan**

#### **4. Future challenge – Progress Towards Environmental Management Accounting (EMA)**

achieve both a reduction in environmental impacts and increased income – the classic ‘win-win’ situation. This type of environmental accounting, as a business management tool, is called environmental management accounting (EMA). Saio, Kokubu, Nashioka and Imai (2002) show that although there is a strong need for environmental accounting in support of management decision making, there is a considerable gap between “actual benefits” and “expected benefits” from a practical point of view.

Responding to corporate needs for EMA, in 1999, the METI launched a project to develop EMA tools suitable for Japanese companies, including a range of practical case illustrations. This project was completed in 2001 and METI published the “*Environmental Management Accounting Tools Workbook*” (METI 2002). In this

project, six EMA tools were developed: environmental capital investment appraisal, environmental cost planning, environmental cost matrix, material flow cost accounting, environmental corporate performance evaluation and life cycle costing. This METI project is playing an important role in the promotion of EMA in Japan. Kokubu and Nashioka (2003) examined the effectiveness of each EMA tool developed by the METI project. However, they also found that the number of companies making use of these tools is not high at this point. One reason might be the current lack of familiarity with EMA. In Japan, environmental accounting for external disclosure based on the MOE guidelines for environmental reports is well established. On the other hand, EMA practice is nascent. The need now is to overcome the expectation gap through guidance for and promotion of the practical uses of EMA.

## References

- Burritt, R.L., Hahn, T. and Schaltegger, S. (2002) Towards a Comprehensive Framework for Environmental Management Accounting – Links Between Business Actors and EMA Tools’, *Australian Accounting Review*, Vol.12, No. 2, July 2002, pp.39-50.
- Ishikawa, H. and Mukoyama, A. (2003) “Environmental Information and Corporate Evaluation” *Kaikei*, No.163. Vol.1. January 2003, pp.56-71. (in Japanese)
- Kokubu, K. and Nashioka, E. (2003) “Environmental Accounting Practice and Challenge of Japanese Companies” Presentation Paper of *Japan Accounting Association Annual Meeting* in 2003. (in Japanese).
- METI (2002) *Environmental Management Accounting Tools Workbook* Ministry of Economy, Trade and Industry, Japan accessed at [http://www.meti.go.jp/policy/eco\\_buss/ess/](http://www.meti.go.jp/policy/eco_buss/ess/) (in Japanese) on 1.Dec.03.
- MOE (2001) *Environmental Reporting Guidelines. Guidance for Publishing Environmental Reporting (Fiscal Year 2000 Version)* Ministry of Environment, Japan accessed at <http://www.env.go.jp/en/rep/eco/erg2000.pdf> on 1.Dec.03.
- MOE (2002a) *Environmental Accounting Guideline (2002 Version)* Ministry of Environment, Japan accessed at <http://www.env.go.jp/en/ssee/eag02.pdf> on 1.Dec.03.
- MOE (2002b) *Research Report on Environment-conscious Behaviors in Financial Business*, Ministry of Environment, Japan (in Japanese).
- MOE (2003a) *A Survey of Environmentally Corporate Behavior*, Ministry of Environment, Japan (in Japanese).
- MOE (2003b) *The Basic Plan for the Promotion a Recycling-Oriented Society*, Ministry of Environment, Japan (in Japanese).
- MOE (2003c) *Environmental Report Preparation Standard (Exposure Draft)*, Ministry of Environment, Japan (in Japanese).
- MOE (2003d) *Environmental Reporting Guideline (Exposure Draft)*, Ministry of Environment, Japan (in Japanese).
- MOE (2003e) *Environmental Report Review Standard (Exposure Draft)*, Ministry of Environment, Japan (in Japanese).
- Nashioka, E. (2003) ‘Current Status and Issues of Environmental Accounting Disclosure of Japanese Corporation’, in Kokubu, K. and Eliko N. eds. *Environmental Accounting In The Process of Updating*, pp.175-196. (in Japanese)
- Paku, O. (2003) “Examination of Capital Cost Reduction effect by Environmental Accounting Information Disclosure”

Presentation Paper of *Japan Accounting Association Annual Meeting* in 2003. (in Japanese).

Saio, K., Kokubu, K., Nashioka, E. and Imai, S. (2002) "Current status and Issues of Environmental Accounting Practices"

*IGES Discussion Paper* 2001-No. 2. (in Japanese).

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## WHERE ARE AUSTRALIAN FEDERAL PARTY VIEWS ON SOCIETY AND THE ENVIRONMENT HEADING?

Australia has, this month, recorded a population of 20 million human beings. It remains a country with an exceedingly low population density. Australia is one of the driest continents in the world. Three levels of government – federal, State and Territory, and local, look after its political interests. While local government has considerable responsibility for society and the environment (eg policing, development approvals, licensing of business activities such as pollution permits, etc.), the federal government sets the national agenda.

In November 2003 a new Leader was chosen for the federal Opposition Labor party - the Honourable Mark Latham. The Liberal Coalition has been in government since 1996, headed by the Honourable John Howard. The next federal election is expected in 2004. The Australian Democrats represents a third force in federal politics. Others include the 'One Nation' party and a small group of independent members of Parliament.

Opinions expressed below reflect some of the recent, diverse views about the environment and society that are likely to be

played out over the next few years in Australia at the federal level.

First, a comment on the current federal Liberal Coalition policies is expressed by Susan Brown, a former conservation council co-ordinator and environment adviser to Australian Democrats leaders Cheryl Kernot and Meg Lees – both of who have since left the party.

Second, is an edited extract from an insightful speech by Clive Hamilton to the National Left ALP/Trade Unions Conference at the Humanities research Centre, ANU, Canberra, 11 May 2002.

Third, comes a solid reply to Hamilton's challenge by the, now, new leader of the Labor opposition, Mark Latham.

This is followed by a plea for control of media concentration made last month in Parliament by Kelvin Thompson - as reported in the daily Hansard. He feels that the media are too powerful and ignore environmental issues to follow their own agenda.