

A Framework for

Public Environmental Reporting

An Australian Approach



Natural
Heritage
Trust

*Helping Communities
Helping Australia*

MARCH 2000



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Foreword

Improving environmental performance makes good business sense for any organisation. Using raw materials more efficiently, saving energy, reducing wastes and cutting compliance costs all help to improve the bottom line.

As well as the challenge of reducing environmental costs, business is facing new market pressures to improve environmental performance. These pressures have a hard financial edge that are forcing environmental issues into business strategies. The pressures include growing consumer demand for environmentally preferred products and services, the need to comply with the standards of business clients and meeting the information needs of the financial services sector in assessing environmental risk and performance.

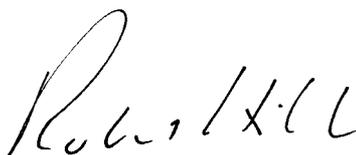
Releasing a public environmental report is part of how an organisation can meet the new environmental expectations of the market. A good environmental report conveys an organisation's commitment to the environment and the efforts being taken to manage environmental responsibilities.

Other stakeholders such as governments, the local community and employees are also placing increasing demands on organisations to be more transparent and accountable for their environmental performance. In this sense public environmental reporting is an increasingly important tool for organisations to gain a 'licence to operate' from the wider community.

With the release of this *Australian Framework* I hope that Environment Australia will contribute at a national level to a growing acceptance of public environmental reporting and an increase in the number of high quality reports.

Widespread voluntary public environmental reporting will contribute to improved environmental and economic outcomes by adding to the impetus for organisations to continually seek out and implement eco-efficiency gains. I hope that within Australia both private and public sector organisations will see it as in their best interests to start, or continue, reporting on their environmental performance.

I commend this *Australian Framework for Public Environmental Reporting* to you.



SENATOR ROBERT HILL
Minister for the Environment and Heritage



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– Project Manager
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In developing the Framework the consultancy team acknowledges the use of a number of key resources, in particular:

- CERES Global Reporting Initiative, *Sustainability Reporting Guidelines Exposure Draft for Public Comment and Pilot Testing*, 1999
- UNEP/SustainAbility Benchmarking Program, *Engaging Stakeholders* Volumes 1 & 2, 1996
- NSW Environmental Protection Agency, *Corporate Reporting – Why & How*, 1997
- Deloitte Touche Tohmatsu International, International Institute for Sustainable Development and SustainAbility Ltd, *Coming Clean: Corporate Environmental Reporting Opening Up for Sustainable Development*, 1993
- Environmental Protection Agency, Queensland, *Guideline on Corporate Environmental Reporting* (Unpublished)
- AS/NZS ISO 14001-1996 'Environmental Management Systems – specification with guidance for use'

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About the Reporting Framework

What is Public Environmental Reporting?

Public environmental reporting is the communication of environmental performance information by an organisation to its stakeholders. Increasingly, Australian organisations are choosing to publish such reports, some in response to mandatory requirements, others in accordance with emerging business and signatory requirements or changing stakeholder expectations.

These changes form part of a paradigm shift towards corporate transparency and public accountability.

Why this Framework?

This *Framework for Public Environmental Reporting* was developed following extensive workshop consultation with interested parties in the private and public sectors throughout Australia. It has been developed to further facilitate and encourage voluntary public environmental reporting in Australia, by providing simple and effective guidance at a national level.

Globally, environmental reports are becoming increasingly important as a tool in communicating with and engaging stakeholders. This is partly due to a growing realisation that significant environmental, educational, communication, public relations and commercial benefits can be gained by producing environmental reports. The number of global and Australian organisations producing reports has increased exponentially in the past few years.

As a result of this growing interest a number of international non-government organisations, led by the Coalition for Environmentally Responsible Economies (CERES) and the United Nations Environment Program (UNEP), have developed the Global Reporting Initiative (GRI) to provide a guideline for public reporting. The GRI is constantly being reviewed to accommodate the increasing trend of organisations wishing to report on their environmental as well as social performance.

This *Framework* has been developed in partnership with CERES and the GRI program to suit Australian organisations and local requirements. Therefore, meeting the requirements of this framework in producing a Public Environmental Report (PER) will also ensure that an organisation follows global best

practice in environmental reporting. It has also been designed so that smaller organisations can choose those elements of the *Framework* which are relevant to their operations for the purpose of public environmental reporting.

Objectives of the Australian Framework for Public Environmental Reporting:

- to provide flexible and broad guidance at a national level on voluntary public environmental reporting
- to facilitate voluntary environmental reporting within private and public sectors
- to provide simple and effective guidance on how to report and what to report
- to facilitate reporting to stakeholders with reliable information relevant to their needs and interests
- to facilitate transparency, credibility and more consistency in reporting
- to be compatible with other related national and international guidelines such as GRI
- to be a continuously evolving document that is periodically reviewed and updated

Who does this Framework apply to?

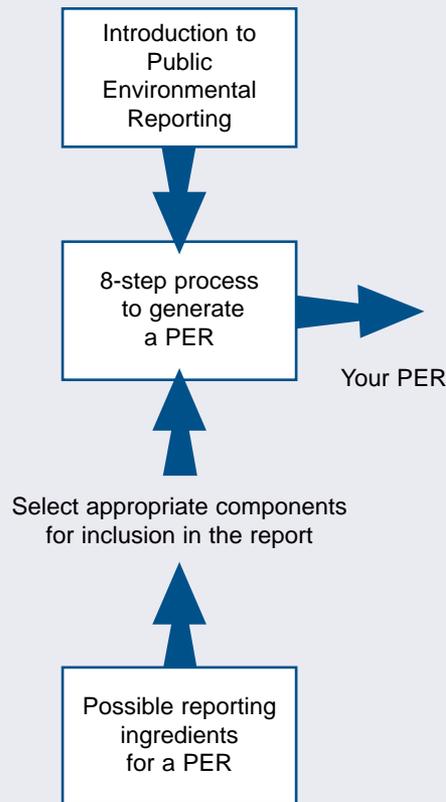
This *Framework* is aimed at assisting both private and public sector organisations of any size and type that choose to prepare an environmental report. It is also intended to assist and provide broad guidance on public environmental reporting for those organisations that have specific mandatory or signatory reporting requirements.

Organisations vary both in size and in the nature of their operational impacts. Therefore, their needs and requirements for public environmental reporting will also vary. This *Framework* provides tools for organisations to assess their needs for reporting, and to consider and select an appropriate level of reporting. For example, organisations may choose to prepare large reports or small brochures, depending on the size and nature of their operations and stakeholder requirements.

How to Use the Reporting Framework

This *Framework* is comprised of four key sections.

- **An Introduction to Public Environmental Reporting** provides a brief introduction to public environmental reporting, its history and its drivers, and discusses the benefits of reporting.
- **How to Prepare a PER** provides a broad framework for developing a report. It introduces an **eight-step** process that an organisation can follow to produce a PER. This **eight-step** process is covered under three phases: **PLAN**; **MEASURE**; and **REPORT AND REVIEW**. Organisations that already have environmental management programs in place may be able to 'skip' several of the intermediate steps.
- **Possible Reporting Ingredients for a PER** provides examples of environmental performance indicators as well as other best practice components of an environmental report. These examples are given to guide organisations in selecting appropriate performance indicators for reporting as they address each of the eight steps in preparing their report.
- **Further Reading** provides additional references, organisations, contact points and web sites for further information on PER.



Continuing Evolution of the Reporting Framework

In recognition of the evolving nature of public environmental reporting it is intended that this *Framework* be periodically reviewed over time for continuous improvement. It has therefore been designed with the flexibility to accommodate changes arising in environmental and social reporting, both in Australia and internationally. It is also designed to include a feedback mechanism that allows and encourages users to suggest ways of improving its usefulness. A feedback form is provided at page 45. Organisations are also encouraged to indicate, within their PER, their use of this *Framework* in its development.

1.1 The Concept of Public Environmental Reporting

The concept of public environmental reporting originated from the 1992 United Nations Conference on Environment and Development (UNCED), commonly known as the Rio Earth Summit. The Earth Summit was the first major international discussion of sustainable development as a serious global issue. Agenda 21, the 'action agenda' which emerged from the Earth Summit, identified 'community right-to-know' as a matter for consideration in developing environmental policy. It recommended that organisations be transparent in their operations and report annually on their environmental performance.

An organisation is essentially a function of its stakeholder groups, including its employees, shareholders, the public, regulators, contractors/suppliers, customers and other interested external parties, who have varying objectives and expectations that need to be satisfied. The measurement and reporting of environmental performance is becoming increasingly important in order to satisfy the expectations of such stakeholder groups.

Public environmental reporting may be defined as: **Public disclosure of information about an organisation's environmental performance, including its impacts on the environment, its performance in managing those impacts and its contribution to ecologically sustainable development.**

In brief, public environmental reporting is the communication of environmental performance information by an organisation to its stakeholders. The two primary forms of public environmental reporting are mandatory and voluntary. However, environmental disclosures may also come from a third party and be involuntary. Following are some examples of the various types of environmental disclosure.

Forms of Environmental Disclosure

Involuntary

- Media exposures
- EPA notices
- Green group activism
- Court investigations

Mandatory

Regulatory:

- Corporations Law, S299(1)(f)
- National Pollutant Inventory
- Emission licences

Signatory:

- Minerals Council Code of Environmental Management
- ESAA Code of Environmental Practice
- The Greenhouse Challenge

Voluntary

Confidential:

- Disclosure required by banks, joint venture partners, insurers and customers

Non-confidential:

- **Public environmental reports**
- Press releases and media briefings
- Open-house days
- Employee newsletters

This *Framework* is about voluntary environmental disclosure, and in particular reporting via periodic environmental reports. Environmental reports can vary in size and content. The report does not exclude, but strengthens other forms of communication on environmental performance. Public environmental reporting is increasingly becoming the 'jewel in the crown' of an organisation's environmental communication strategy or environmental management strategy. It is also the most versatile of environmental communication programs, as it is a technical document designed to address the needs of a wide spectrum of stakeholder groups.

1.2 Why Report?

Internationally, organisations are finding a number of reasons, or drivers, to produce PERs. The primary reasons for voluntary reporting are:

- **Transparency:** Growing numbers of stakeholders want to integrate environmental and social information in their decision making processes. With the increased information flow within a 'CNN world' that increases the visibility of an organisation's activities, organisations are themselves voluntarily choosing to be more transparent. *'One clear example is Shell, which has moved from a 'Trust Me' culture (where companies rely on society's broad acceptance that they act in good faith), through a 'Tell Me' culture (where society wants to be told what is going on) to a 'Show Me' culture (in which companies have to demonstrate their serious intent to change for the better)'* (Engaging Stakeholders, 1999).
- **Accountability:** Organisations are increasingly becoming accountable for their actions. The economic value of some organisations is larger than some of the world's smaller countries. Adverse criticism on environmental and social performance can put at risk the significant economic value of good corporate reputation and a well-regarded brand.
- **Multi-way Stakeholder Dialogue:** Increasingly, non-traditional stakeholders such as non-government organisations, the media, suppliers/partners, employees, consumers and shareholders are demanding information on environmental and social performance. Organisations are finding that satisfaction and retainment of both traditional and non-traditional stakeholders depends on their willingness to openly communicate.

These pressures have seen a steady increase in the number of organisations producing a PER. The World Resources Institute (WRI) suggests an increasing likelihood that organisations will need to report not only on their financial performance but also on the environmental and social implications of their operations. WRI acknowledges that this may seem visionary, but that the changes in financial reporting over the last century indicate that disclosure may be the

only way organisations can remain sustainable (World Resources Institute, 1998).

The synergies between economic and environmental performance are increasingly being recognised. One example is a new market measure, the Dow Jones Sustainability Global Group Index, which is a listing and indexing of 200 of the most 'sustainable' companies from the original Dow Jones Global Index. This is an example of a driver in a new paradigm shift where environmental management, performance evaluation and reporting are creating a range of market opportunities.

Smaller organisations are also increasingly finding that issues of transparency, accountability, and stakeholder dialogue are important in every day business. In some cases, significant market opportunities exist (as outlined in Section 1.4) for smaller organisations that choose 'green marketing' through environmental reporting to distinguish their product/service range.

1.3 The Australian Context

In Australia, the reasons for reporting discussed above are reflected in a number of regulatory, economic and community pressures. In response to these pressures, there is an increasing Australian trend for organisations to publicly disclose information relating to environmental performance. Public environmental reporting in Australia started in the early 1990s with the mining and utility industry sectors leading the way. In more recent times, several more specific drivers can be identified that are leading to the growth in the number of PERs published. These drivers can be classified into two dominant categories: mandatory/signatory and voluntary/market-driven. Some of these drivers are listed below:

Mandatory/Signatory

- The National Pollutant Inventory requires facilities to report against a list of agreed chemical pollutants emitted to the air, land or water. These reports are made available to the public.
- Section 299(1)(f) of the Corporations Law (mandatory reporting requirement within Annual Directors' Reports for public companies as well as private companies satisfying two of the following three tests: gross revenue in excess of \$10 million, gross assets more than \$5 million or having in excess of 50 employees).
- The Greenhouse Challenge (reporting requirements on greenhouse gas emissions for signatories to the Greenhouse Challenge Program).
- The Australian Minerals Council Code of Environmental Management.
- Electricity Suppliers Association of Australia (ESAA) Code of Environmental Practice.
- The Environment Protection and Biodiversity Conservation Act requires Commonwealth Government agencies to report annually on Ecologically Sustainable Development outcomes.
- State of the Environment Reporting requirements for Local Government Authorities in NSW arising from the Local Government Act of NSW (mandatory).

Voluntary/Market Driven

- Plastics and Chemicals Industries Association *Community Right To Know* program.
- Interim Report of the Inquiry into Environmental Accounting and Reporting by the Public Accounts and Estimates Committee of the Victorian Parliament which recommends greater level of disclosure by both private and public sector organisations (emerging).
- Environmentally screened funds such as the Westpac Eco-Share Fund, which considers the top 160 companies in Australia (market driver).
- Accredited Licences in some Australian States such as Victoria and Western Australia (incentive-based).

All of these mechanisms reflect the growing pressure on organisations to report on their environmental performance through tools such as public environmental reporting.

1.4 Benefits of Reporting

In addition to satisfying the stakeholders' right to know, there are significant additional benefits that may result from focussed voluntary public environmental reporting. A considerable amount of research has been undertaken on the benefits and costs of environmental reporting. One survey of 47 reporting companies, for example, found that most felt that they had gained improved stakeholder relations and improvements in management strategies (Bennett, M & James, P, 1999). Some of the common benefits are:

- Creation of market opportunities;
- Indirect improvements in internal environmental performance;
- Increased confidence of investors, insurers and financial institutions;
- Improvement of relationships with local communities, regulators, and non-government organisations;
- Greater control of environmental disclosure; and
- Increased staff commitment.

Creation of market opportunities

- Some organisations are quick to realise that environmental performance measurement and reporting is linked closely to business performance.
- Focussed environmental reporting raises the profile of an organisation, thus gaining the recognition of existing and potential customers.
- Consumers may choose to purchase products from 'environmentally friendly' organisations as a result of the knowledge and assurance gained from publicly available environmental performance information.
- Some organisations are demanding that their suppliers and contractors be environmentally sound, through the use of preferential purchasing and the use of more environmentally sound products and/or services. Thus an environmental report may help secure market opportunities.
- Investors are increasingly choosing to invest in 'clean and green organisations' and may appreciate the availability of public environmental performance information.

Indirect improvements in internal environmental performance

- An environmental report that details resource use, waste discharges and impacts of the organisation's operations can highlight inefficiencies in production processes.
- Commitment to public environmental reporting will result in increasing internal awareness and focus on improving environmental performance. Instinctively organisations are reluctant to report 'bad news'. Therefore, they will tend to focus on meeting targets and objectives to which they have publicly committed, and on reducing environmental incidents.

Increased confidence of investors, insurers and financial institutions

- Environmental liabilities and risks are increasingly becoming the focus of lending institutions, investors and insurers. It is good business to ensure that these stakeholder groups are kept well informed of the organisation's environmental performance.
- The current trend to move towards personal choice in superannuation funds in Australia will increasingly see fund managers provide environmentally screened choices in funds for green consumers. Such fund managers will rely on publicly available environmental information for organisations.

Improved relationships with local communities, regulators and non-government organisations

- Local communities will be more tolerant and even supportive of organisations that openly communicate with their stakeholders. Transparency and documentation of social and environmental accountability are important to gain confidence of local communities.
- Those organisations which need to report on emissions under the NPI program have the opportunity to link an Internet voluntary environmental report to their NPI data on the national registry. Local communities and interested parties can then access wider environmental performance information on the organisation rather than emissions estimates alone.
- There is an increasing trend in Australia for regulators to adopt more flexible regulatory regimes with organisations that can demonstrate responsibility for and transparency in environmental management.
- Honest and verified public environmental reporting will serve to improve relationships with regulators and non-government organisations. Such organisations may take the positive aspects of environmental performance into account when considering whether to target less well performing areas, particularly if there is evidence of a commitment to continual improvement.

Greater control of environmental disclosure

- Reporting allows organisations to present information on their environmental performance in their own way, avoiding involuntary disclosure by other parties including media, non-government organisations and interested groups. This control can enable organisations to ensure that the public is also aware of the measures being taken to improve performance.

Increased staff commitment

- Public environmental reporting can raise the environmental awareness and commitment of an organisation's employees and management. Environmental performance may be related to the personal health of employees, the surrounding environment where they reside or simply raise their level of confidence in the organisation by creating a sense of pride. Staff commitment is critical in collecting data and communicating the information publicly.

This Section is about how to use the *Framework*, and leads report preparers through a number of key steps for generating a PER.

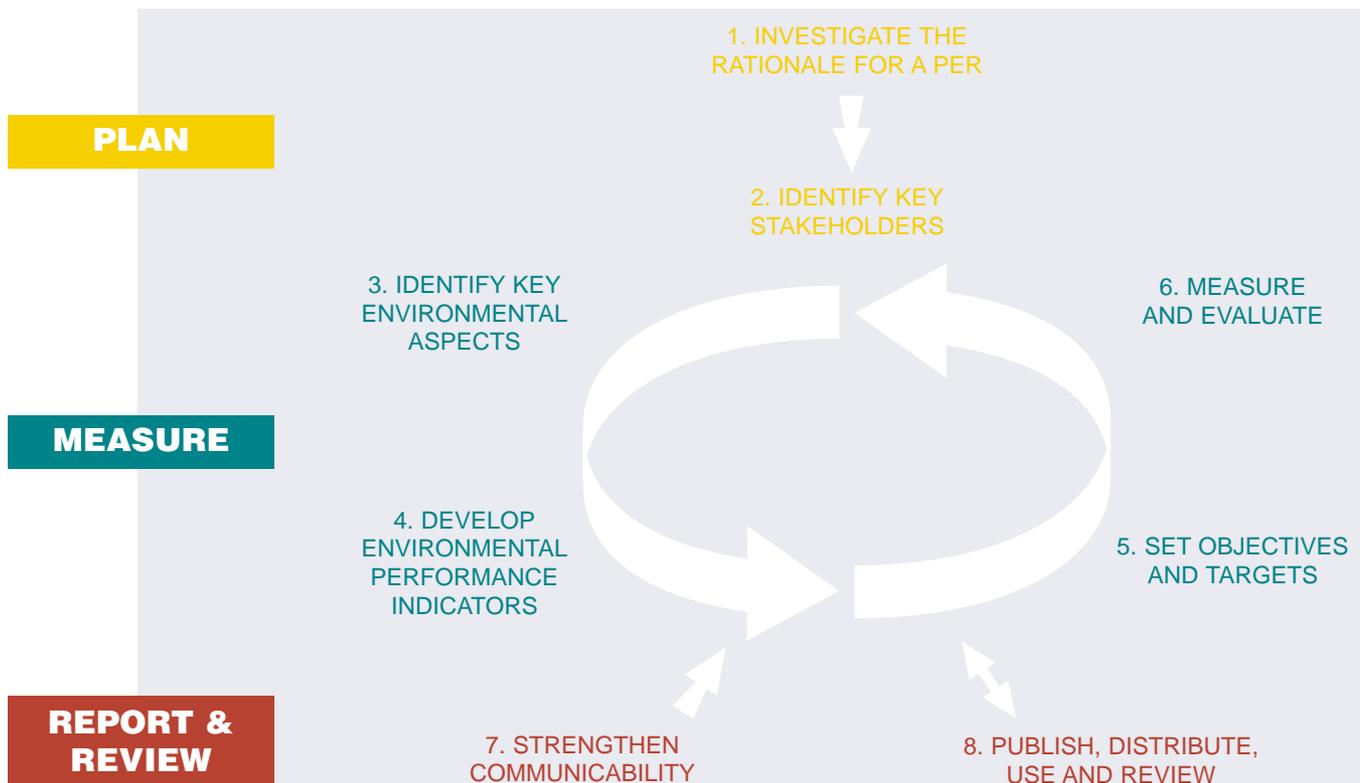
All organisations have environmental impacts, regardless of whether they are public, private, industrial, commercial, large or small. However, their levels of impacts vary. A range of differences also exist in their corporate requirements, the needs of their stakeholders and in their mandatory and signatory environmental obligations. Therefore, it is likely that the size and content of a PER will vary, sometimes significantly, from organisation to organisation.

For this reason, this Section focuses on the process of generating a PER, rather than prescribing a list of standard reporting elements for inclusion. Section 3 complements this by providing a number of examples and case studies of common reporting elements that may be used in developing a PER or in generating an organisation's own reporting format. The process of getting to that point, and proceeding to publicly report the results, is illustrated in this Section through an eight-step mechanism.

These reporting steps are broad and generic, and therefore applicable to all organisations regardless of sector or size. The eight steps are grouped under three key phases – **Plan**, **Measure** and **Report & Review**.

A diagrammatic representation of the *Framework's* three phase/eight step program is presented below. The first and the last phases are integral to public environmental reporting and should be considered by all organisations choosing to report. However, organisations with an Environmental Management System (EMS) and/or those that have identified and measured the environmental impacts of their operations may be in a position to skip some or all of the second 'measure' phase (steps 3 to 6). Despite this, it is suggested that organisations carefully consider each of the steps to ensure that the processes recommended to produce a PER are taken into account. Further, organisations that are currently reporting could use the *Framework* to improve the standard and quality of reporting. Detailed information and flowcharts for easy implementation are provided in the pages that follow.

Three phase / Eight-step process to preparation of a PER



Eight-Step process to preparing your PER

Investigate Rationale for a PER

- Identify potential benefits and pitfalls in producing a PER
- Identify the scope and coverage of the PER
- Assess costs and benefits and attain top management commitment for producing a PER

Identify Key Stakeholders

Identify key stakeholders and their needs in a PER both at this initial stage by consultation and at the review stage through feedback mechanisms

Identify Key Environmental Aspects and Impacts

Identify key environmental issues and resulting significant environmental aspects for reporting purposes

Develop Environmental Performance Indicators

Identify and prioritise relevant environmental (operational and management) performance indicators and environmental condition indicators for reporting purposes

Set Objectives and Targets

Set appropriate environmental performance objectives and targets including time lines aimed at meeting established commitments for environmental performance

Measure and Evaluate

Develop a framework for measurement including data collection, collation and evaluation

Strengthen Effectiveness of Communication

In reporting ensure honesty, clarity, neutrality, credibility, continuity, validity, understandability, relevance, completeness and comparability. Independent verification may also provide additional external assurance to readers

Publish, Distribute, Use and Review

- Choose reporting format(s) and period that suits your organisational and stakeholder requirements
- Distribute and use the report appropriately
- Include a feedback mechanism and contact details for feedback, queries and further information
- Review feedback, environmental aspects, environmental indicators, stakeholder needs and objectives and targets

Step 1

PLAN

Step 2

Step 3

MEASURE

Step 4

Step 5

Step 6

Step 7

REPORT & REVIEW

Step 8

Question the Need

Why report?

- Is there an identified or perceived stakeholder need?
- Is your organisation signatory to an industry code that specifies public disclosure of environmental information?
- Is there a mandatory reporting need?
- Are there potential current or future benefits such as improving public profile, creating market opportunities, strengthening your negotiating powers with stakeholders, raising internal awareness?

Consider the Costs and Benefits

Possible benefits

- Improve stakeholder relations
- Creation of market opportunities
- Greater control of environmental disclosure
- Satisfying a mandatory or signatory reporting need
- Gain confidence of investors, insurers and financial institutions
- Trigger internal improvements in environmental performance
- External recognition/awards

Possible barriers

- Cost and resource constraints
- Additional resources required initially to develop a framework for measurement and reporting
- The need to report openly once committed
- Management and public affairs/legal affairs approval

Develop a Case for Management

Present a case to management and internal stakeholders

- Identify the coverage of the PER including sites, business operations/units and processes, and consider industry sector examples
- Identify clearly the possible benefits and current or expected mandatory or signatory reporting requirements or industry trends
- Identify and quantify the potential costs including additional resources required
- Make a formal presentation where opportunities exist for management queries to be answered
- Preferably present options and stages for reporting that graduate the initial costs and resources required to establish the reporting process
- Larger organisations may choose to develop an environmental reporting policy for sign-off by management

Attain Top Management Commitment to Report Publicly

The first step in generating a PER involves understanding the rationale for public reporting internally within the organisation. A sound appreciation of the needs, costs, and benefits of reporting will assist in deciding whether to report, and at what level.

Question the Need

It is important to identify the need for public disclosure of environmental performance information. In doing so, the report preparer needs to consider values such as transparency, accountability and multi-way stakeholder dialogue (see Section 1), as well as current Australian and global drivers for PER (see Section 1). This will enable the organisation to gain an appreciation of its position in the context of the environment, and to identify any voluntary, market-driven or mandatory/signatory needs that may exist for reporting.

It is also important to take into account public environmental reporting practices within the organisation's industry sector, and to understand the various levels of reporting available, as well as the reasons why similar organisations may or may not be reporting.

Stakeholder needs form the cornerstone for dissemination of environmental performance information. Therefore, existing and perceived stakeholder requirements should be considered. This is further addressed in Step 2 and Section 3.4.

Consider Costs and Benefits

As discussed above, the increasing trend for organisations to be more transparent with their environmental performance suggests that a range of benefits for reporting exist. These may include, but are not limited to, improving stakeholder relationships; creation of market opportunities; gaining investor or insurer confidence; triggering internal awareness, efficiency improvements and associated cost savings; and external recognition and awards (see Section 1.4). However, potential costs of reporting also need to be considered to ensure that the process does not fail due to resource limitations. Such costs may include resources and costs relating to data collection and the report preparation exercise. Other barriers may include gaining approval from management/ Board, public affairs or legal personnel.

Examination of environmental reports from similar organisations or industry sectors can assist in assessing the costs and benefits involved. Liaison with industry sector peers is also recommended.

Develop a Case for Management

An objective case should be prepared for consideration by top management on the need to report and the level of reporting. Increasingly, top management is calling for value shifts within the organisation, such as transparency, to ensure long-term sustainability. The 'new CEO' is generally acutely aware of stakeholder needs, a 'competition' rather than a 'compliance' focussed market place and an inclusive approach to corporate governance. Other internal stakeholders may also need consulting. Issues to consider in preparing a case for management include:

- benefits and costs of reporting publicly;
- possible reporting format, coverage and period (see Step 8);
- examples within the industry sector where public reporting exists;
- current or expected mandatory or signatory reporting requirements or industry trends;
- various options and stages for reporting and reporting formats that may reduce the initial cost/resource burden; and
- a draft of an environmental reporting policy for agreement and sign off by management to elicit commitment.

Identify

Potential stakeholders may include:

- Employees, including management
- Shareholders
- Potential investors
- Customers
- Suppliers and contractors
- Lenders, insurers and owners
- Local and regional community
- Media
- Industry associations
- Academic and research institutions
- General public
- Environmental groups
- Non-government organisations
- Consumer interest groups
- Competitors and joint ventures
- Local, State and Federal Government
- Regulatory authorities
- Professional or business associations

Consult

Tools that may be used to seek the views of stakeholders include:

- Surveys and questionnaires
- Meetings and workshops
- Market research
- Direct liaison
- Keep open communication channels
- Feedback mechanisms in reporting

Address

Measures to engage stakeholders in your PER:

- Choose reporting format(s) and period that suits your stakeholder requirements
- Consult with stakeholders throughout the remaining six steps in preparing your PER
- Keep your target audience in mind when preparing the report and address their needs
- Incorporate details of stakeholder engagement in your PER
- Include relevant contact details and feedback mechanisms in your PER

Identifying the audience and consulting with a wide range of stakeholder groups is crucial to reporting success. This may, in some instances, need to be performed as part of, or prior to, Step 1. The PER needs to be developed to meet the organisation's stakeholder requirements and to satisfy their needs.

A number of key issues need to be taken into consideration when engaging stakeholders.

- Broaden the level of inclusivity – in stakeholder consultation the danger exists of only including 'major' stakeholders. However, non-traditional stakeholders, who have usually been marginalised, are increasingly demanding to have a say in decision-making processes.
- Involve stakeholders throughout the report preparation process – all eight steps need some degree of input from stakeholders to ensure that their requirements are being met. Deciding on the inclusion of certain reporting ingredients may involve trade-offs between different stakeholder group interests. More frequent stakeholder consultation can help the decision of what trade-offs to make.
- Measure the quality of stakeholder engagement – the level and participatory success of stakeholder dialogue needs to be measured with the objective of continuous improvement (ways in which this information can be included in the report are outlined in Section 3.4).

Identify

A key issue is to decide on the target audience for a PER – stakeholders (such as shareholders, customers, regulators, non-government organisations, local communities or potential clients) may differ depending on the nature of the organisation. The level of reporting, and the reporting format chosen, primarily depend on the target audience. As discussed above, the stakeholders engaged need to include both traditional and non-traditional stakeholder groups that may be interested in the organisation's environmental performance and vision.

Consult

Different stakeholder groups are likely to have differing views and needs. It is usually considered good practice to consult key stakeholders before and after developing the PER. It is even better practice to engage stakeholders throughout the report preparation process and between reporting cycles. This enables a more thorough understanding of stakeholder needs and any trade-offs which may be required. A range of tools can be used to engage stakeholders in preparing a PER. Some best practice measures are listed in the summary chart.

Address

This step involves addressing the stakeholder needs that have been identified. Issues of most interest may include emissions data, waste management, legislative compliance and penalties, environmental liabilities, rehabilitation, amenity and risk. These may vary significantly from organisation to organisation and from one stakeholder group to another.

Choosing a reporting format and period that most suits stakeholder groups will assist in focussed reporting (see Step 8). In addition, inclusion of relevant contact details for stakeholder queries, as well as feedback mechanisms such as feedback forms, is important in eliciting suggestions for continuously improving future reports.

Initial Review

Establish your organisation's position in relation to the environment covering:

- Environmental legislative and regulatory requirements
- Identification of significant environmental aspects (see below)
- Assessment of existing environmental management practices and procedures
- Evaluation of feedback from the investigation of previous incidents/issues
- Consideration of stakeholder requirements

Identify Aspects and Impacts

In identifying significant environmental aspects and impacts, consider:

- Non-product outputs (waste and emissions to environment)
- Impacts on air, water and land
- Social impacts
- Use of raw materials and natural resources
- Environmental amenity issues
- The organisation's control and influence over the aspect
- Legal requirements and other codes and guidelines
- Normal and abnormal operating conditions
- Your business risk/due diligence
- Environmental policy and corporate requirements
- Stakeholder requirements
- Some of the environmental reporting commitments outlined below for organisations that have an EMS

Prioritise

Prioritise environmental aspects and impacts

Take into consideration the following in prioritising aspects and impacts:

- The scale of the impact
- Its severity
- The probability of its occurrence
- The duration of the impact

Where your organisation has an EMS, take into account the following

Review EMS

In reviewing significant environmental aspects for the purpose of reporting, also consider:

- Your key stakeholder requirements
- Feedback received on previous reports
- Mandatory/signatory or voluntary public environmental reporting commitments
- Corporate environmental reporting commitments
- Your business risk/due diligence

Once the need for a PER and the level of reporting has been established (Step 1), and stakeholder requirements have been identified and considered (Step 2), the focus should shift to measurement of environmental performance. Measurement, where possible quantitative, of the performance of the organisation (both beneficial and adverse) in relation to environmental issues will provide the essential building blocks for the PER. The initial step in this 'measurement' phase is to identify the organisation's key environmental aspects and impacts.

Identifying and prioritising key environmental aspects and impacts is a key process associated with implementing an Environmental Management System (EMS) for an organisation. Therefore, while organisations with an EMS may be able to simply review their existing key environmental aspects in view of reporting requirements, others may need to follow certain established processes (as summarised below) for identifying key environmental aspects for their organisation. The key environmental aspects identified in developing an EMS are usually the same as those aspects for reporting purposes. However, additional issues such as stakeholder views and reporting requirements of the organisation need to be considered in developing or identifying key environmental aspects for reporting (GreenWare, 1999).

Initial Review

Establishment of an organisation's position in relation to the environment requires reviewing its range of activities, its level of interaction with the environment and potential impacts, and developing an understanding of how the key issues could be addressed.

Identify Aspects and Impacts

The organisation needs to identify the environmental aspects of its activities, products or services (over which it can be expected to have an influence) in order to determine areas where environmental impacts are most significant.

Environmental aspects are determined by taking into account the inputs and outputs associated with current and, where relevant, past activities, products and services. The cause and effect relationship between environmental aspects and impacts means that once aspects have been determined, the impacts that result from these aspects can be assessed.

In the identification of significant environmental aspects, an organisation should consider, where relevant, key issues such as:

- emissions to air
- releases to water
- waste management
- contamination of land (soil and associated ground and surface waters)
- use of raw materials and natural resources
- other local environmental and community issues

These elements need to be considered under normal operating conditions, shut-down and start-up conditions, as well as under reasonably foreseeable emergency situations.

An environmental aspect is defined as an element of an organisation's activities, products or services that can interact with the environment resulting in an environmental impact, whether adverse or beneficial. (AS/NZS ISO 14001-1996 'Environmental Management Systems – specification with guidance for use')

Prioritise

Once all environmental aspects and their associated impacts have been identified, the environmental and business significance of each of the impacts should be evaluated in order to determine the organisation's priorities for reporting on them.

Section 3 provides further information on key environmental impacts, and includes several examples. It also provides common environmental indicators used for each of the environmental impacts and can be used as a reference guide in carrying out this step.

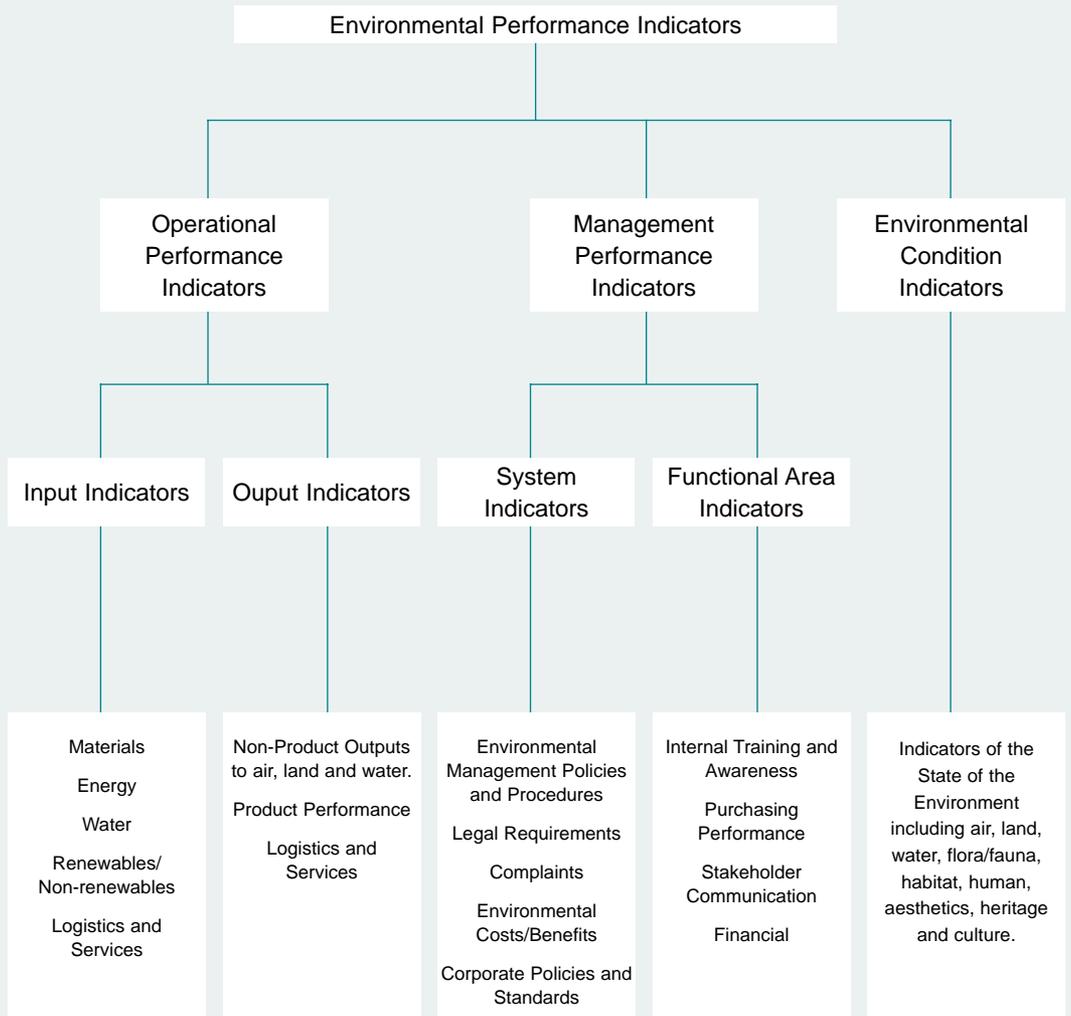
Select Environmental Indicators

Factors that influence the selection of environmental performance indicators

- Your environmental policy and corporate requirements
- Your stakeholder requirements
- Your business risks including significant environmental aspects
- Your environmental compliance requirements and due diligence measures
- Your current and past environmental performance
- Recognised codes, standards and best management practices
- Your management reviews and audit results
- Industry sector requirements and agreements
- The level of interaction between your operations and the surrounding environment

Those key factors of most significance to your operations should be selected, prioritised and used as Selection Criteria for choosing your Environmental Performance Indicators.

Group and Rationalise Indicators



Once the environmental aspects and impacts of the organisation are identified, environmental indicators that best describe the performance the environmental aspects and impacts need to be developed. The use of indicators is a key to the success of an environmental performance monitoring and reporting program. A large array of best practice environmental indicators commonly used in environmental reporting is presented in Section 3.

Select Environmental Indicators

Environmental indicators reduce extensive data sets, relating to the performance of environmental aspects over time, into understandable trends and summaries. Where practicable, they also provide a basis to make comparisons between measurement periods and sites/operations, as well as between organisations.

A broad range of common environmental indicators, described in Section 3, should be used as a reference in generating an organisation's own indicators. Factors that should be considered in selecting indicators are outlined in the summary chart. AS/NZS ISO 14031.4 'Environmental Management – Environmental Performance Evaluation Guideline' is a further source of extensive information on environmental indicators.

Organisations may also wish to seek external assistance to develop appropriate environmental indicators. It is good practice to refer to environmental reports from the same industry sector when developing an organisation's environmental indicators.

Data on environmental indicators form a core component of an environmental report and facilitate the following:

- delineation of environmental performance trends in a time series analysis;
- detection of potential for improvement as well as identification of market opportunities and potential cost savings;
- the potential to derive and pursue environmental goals (See Section 3.6);
- provision of data for raising internal awareness and motivation; and
- implementation of an EMS.

Group and Rationalise Indicators

Environmental indicators can be classified into the following three key groups:

Operational Performance Indicators (OPIs) provide information on environmental performance of an organisation's operations.

Management Performance Indicators (MPIs) provide information on an organisation's capabilities and efforts in managing issues that have an influence in environmental performance.

Environmental Condition Indicators (ECIs) describe the quality of the surrounding environment including air, land, water, flora/fauna/habitat, human and aesthetic environment, and heritage/culture. However, these indicators are usually only considered if it is deemed that the organisation significantly interacts with, and/or contributes to, the state of the surrounding environment.

It is important to classify the indicators into these three groups in order to streamline the environmental performance evaluation process. This also assists the organisation to gain an appreciation of the 'measurement' task at hand, to allocate responsibilities, and, in some instances, to develop or purchase data management tools.

Reporting may occur in **absolute** (eg. total energy used) and **relative** (eg. energy used per unit of product) terms. It is usually best practice to report in both absolute and relative terms. An absolute measure is a measurement such as the quantity of an emission (eg. kg of CO₂ emissions), whereas a relative measure is a specific expression that provides information about an organisation's environmental performance relative to its production (eg. kg of CO₂ per unit of output).

Set Objectives and Targets

Possible factors to consider in setting your objectives and targets

- Environmental policy and corporate requirements
- Stakeholder, financial, operational and business requirements
- Business risks including significant environmental aspects
- Environmental compliance requirements and due diligence measures
- Current and past environmental performance
- Use of best available technology where economically viable, cost effective and judged appropriate
- Financial issues
- Recognised codes, standards and best management practices
- Management review and audit results
- Industry sector requirements and agreements
- Commitment to pollution prevention

Those key factors of most significance to your operations should be identified and prioritised and used as Selection Criteria for developing your objectives and targets, and setting time lines where possible.

Set Time Lines

Time lines

Setting suitable time lines for the objectives and targets assists both in triggering internal improvements and in external recognition of commitment to continuous improvement

Track Progress

Best practice measures in environmental performance evaluation

The following best practice environmental reporting measures should be considered in tracking progress

- Review objectives and targets for each reporting period with the aim of continuous improvement
- Report within the PER on progress against established targets and time lines, and provide a summary on progress achieved
- Consider changes to environmental aspects

This step involves setting goals within the PER for environmental outcomes. Setting objectives, targets and time lines is considered best practice in public reporting as the organisation publicly declares its commitment to meeting its environmental goals. Setting objectives and targets within a PER achieves the following:

- Declares environmental commitment publicly
- Increases credibility of the PER
- Demonstrates to stakeholders the seriousness of the organisation's efforts
- Triggers internal efficiencies to meet the publicly declared goals
- Triggers competitiveness within industries in the same sector
- Allows performance to be easily monitored and compared

A range of issues needs to be considered in setting objectives and targets within a PER. These are detailed in the summary chart. Where there is no data available, this step may be carried out after Step 6, once data trends are identified. Where an organisation has an EMS, these processes may have already been undertaken. Such organisations need only to review these commitments in the context of public reporting and proceed to the next step.

Set Objectives and Targets

Objectives should be specific and targets should be measurable wherever practicable. It is important that targets are consistent with the environmental policy and reflect the established objectives. The report should also document the review of environmental performance targets in each reporting period relative to any changes in environmental objectives.

An objective can be defined as an environmental goal that an organisation sets itself to achieve and should be quantified where practicable (eg. reduce energy consumption where feasible) (AS/NZS ISO 14001-1996 'Environmental Management Systems – specification with guidance for use').

Development of an EMS under ISO 14001 requires that an organisation establishes and maintains documented environmental objectives and targets for each relevant function and level within the organisation.

Addressing functions and levels within an organisation is not crucial for reporting purposes. Review of the organisation's environmental objectives in each reporting period relative to any changes to environmental aspects is important. It is good practice to document this review within the PER.

A target can be defined as a detailed performance requirement, quantified where practicable, applicable to the organisation or parts thereof, that needs to be set and met in order to achieve objectives (ISO 14001:1996). It is important for targets to be Specific, Measurable, Attainable, Relevant and Trackable (SMART targets – UNEP, 1996) eg. reduce energy consumption by 10% by the next reporting period.

Set Time Lines

Setting and meeting time lines for identified targets shows genuine commitment to environmental management and reporting. It will significantly increase the credibility of the PER and ensure stakeholder groups are satisfied. While meeting time lines is a trigger for achieving internal improvements, it can also generate competition within similar organisations looking to benchmark against best practice.

Progress should be reported whether or not time lines were met. Readers consider a report that provides both good and bad news a credible and honest account of the organisation's progress.

Track Progress

Best practice reporting involves reviewing the objectives, targets and time lines set with the aim of continuous improvement. It also involves reporting on such reviews and their suitability, adequacy and effectiveness. Changes to organisational structure, products and/or services provided, policy, EMS, regulatory requirements, stakeholder requirements, industry sector requirements, technological options, financial considerations and business risk are factors that need to be considered in such a review.

AS/NZS ISO 14001-1996 '*Environmental management systems—Specification with guidance for use*' is a source of further information on setting objectives and targets.

Collecting

In collecting data give consideration to:

- Data reliability
- Quality control and assurance
- Data availability
- Scientific and statistical validity
- Monitoring periods
- Data identification, storage, retrieval and disposition procedures
- Aligning monitoring and reporting periods, where required

Data



Collating

Data may be collected from:

- Monitoring/measuring records
- Regulatory reports
- Inventory/production records
- Financial and accounting records
- Purchasing records
- Environmental audit reports
- Local and state of the environment reports
- Government and research agencies
- Suppliers and subcontractors
- Industry associations

Information



Analysing

In analysing and converting data give consideration to:

- All relevant and reliable data to avoid bias
- Data validity and traceability
- Adequacy and completeness
- Data aggregation and transcription processes
- Objectives and targets
- Data produced by others in the industry sector
- Data trends

Results



Communicating

In communicating the results give consideration to:

- Stakeholder requirements
- Trends in performance
- Legislative and regulatory compliance
- Absolute and relative indicators
- Data quality
- Case studies
- Data comparability, continuity and completeness
- Assumptions and metrics used
- Objectives and targets
- Qualitative characteristics in reporting (see Step 7)

The process of collecting, collating, analysing and reporting data is perhaps the most elaborate step in public environmental reporting. Data needs to be collected over a specified time period to be meaningful. However, it should be recognised that the first PER produced by an organisation may not have adequate data to illustrate trends due to the limited period of data collection.

Where an organisation has an EMS, data collection and analysis may have already been undertaken. Such organisations need only to review the last phase of this step (communicating the results) and proceed to the next step. Section 3 can be used as a reference guide to communicating data sets so that they are meaningful to readers. It is also suggested that report preparers review PERs from their own industry sectors to gain an appreciation of how others are communicating their environmental performance information.

Collecting

An appropriate mechanism needs to be developed for monitoring and data collection of the environmental aspects and performance indicators identified. A range of issues, such as aligning monitoring periods to the reporting period, quality control and data reliability, need to be considered. It is good practice to collect data on an annual basis even if reporting is not annual. On the other hand, data may be collected in a finite period for reporting as a case study.

Collating

Through this step, data is effectively organised into appropriate and meaningful information for a PER. Data may already exist for some indicators, in which case data aggregation and transcription processes should be developed to meet the reporting requirements set by the objectives. Data collation may occur from a range of sources as illustrated in the summary chart.

Analysing

Collected data needs to be analysed in order to communicate results in a meaningful fashion within the PER. Analysis will assist in detecting trends, benchmarking and reporting on compliance or best practice in environmental management. Usually, expert data analysts are responsible for this function, as proper data interpretation is crucial to the outcomes reported. It may also be good practice for the draft report to be reviewed by those personnel responsible for data collation and analysis to ensure interpretation within the report is accurate.

Communicating

The results from this data measurement and evaluation step need to be communicated effectively by giving consideration to stakeholder requirements, environmental performance trends, comparability and continuity of results presented as well as the objectives and targets set in the previous reporting period. Attention also needs to be given to ensuring the qualitative value of the report (see Step 7).

Additional information on measurement and evaluation can be found within AS/NZS ISO 14031(Int):1998 '*Environmental Management – Environmental Performance Evaluation – Guideline*'.

Step 7

Strengthen Effectiveness of Communication

Relevance

To be useful the information must be relevant to the decision-making needs of stakeholder user groups

Reliability

Information is reliable when free from bias and material error

Comprehensibility

It is important to present information in a manner that is readable and understandable to the primary user groups

Neutrality

Reporting needs to be neutral to ensure the PER does not influence a decision or judgement by selective presentation of information

Completeness

Completeness in coverage reduces the risk of bias. Completeness also relates to the boundary of the reporting entity, which should be defined in the PER. It is also good practice to define the organisation's position in relation to the environment as well as its key environmental aspects

Comparability

Consistency in measurement of data and presentation of information is needed to ensure comparability internally, between sites and within the sector

Timeliness

The report should reflect recent performance, be clear about the reporting period covered and the reason for choosing the reporting period and/or frequency of reporting

Credibility & Verification

Credibility arises from honest reporting, but can be further enhanced by involving external stakeholders in the report review process, and/or seeking independent verification/review by qualified external parties. Further information on verification is provided in Section 3.8.

A PER is a communication tool as much as it is a report on the environmental performance of an organisation. In financial as well as environmental reporting, qualitative characteristics are the attributes that make published information useful. The communication value of the report should be given adequate consideration as the relevance of the information presented has a strong bearing on its usefulness to the reader. Some of these qualitative characteristics are also integral to the verifiability of the report and can be used by verification bodies to form an opinion on the content of the report. These qualitative characteristics and their applicability to reporting are detailed in the summary chart.

Previous steps such as investigating the rationale for a PER and identifying and consulting stakeholder groups are integral to the process of producing a high quality report that communicates its messages effectively. Other useful mechanisms to improve the communication value of the report include:

- **Target the messages:** Regardless of the target audience, the message should be clear and effectively communicated. While it is important not to let the medium of communication obscure the messages, it is useful to use graphics and good report design principles to keep the readers interested. In some cases, particularly where different stakeholder groups have distinct different needs, it may be useful to produce different report formats to achieve the desired outcomes. For example, an organisation that needs to produce a voluminous environmental report for particular stakeholder groups that demand significant information may also wish to produce a condensed summary report for wider distribution.
- **Quantify:** Effective communication of progress is not possible without quantification. As discussed under Step 5, quantified targets with time lines will further assist in sending clear messages about the organisation's level of commitment.
- **Ask for feedback:** It is good practice to encourage feedback. As current industry trends suggest that very few readers provide feedback, the provision of toll-free numbers, postage-paid feedback forms and e-mail addresses may all be useful mechanisms to encourage responses. Some organisations have run competitions, and others have attached the report to pay slips of employees to encourage its use and feedback.

- **Be innovative:** While for some organisations it may be satisfactory to produce similar reports regularly, many of the better reporters try to be more innovative with their messages using graphics and different reporting media to keep readers interested. One approach is for the report to tell a story and for the story to continue from one year to another.
- **Benchmark/welcome criticism:** Organisations such as SustainAbility Ltd, Snowy Mountains Engineering Corporation and World Wide Fund for Nature have undertaken benchmarking programs of environmental reports. Participation in such external benchmarking programs, as well as benchmarking against a set of accepted criteria internally, can enable the continuous improvement of reports. Critical feedback should be treated as an opportunity to improve, which can be further addressed during stakeholder consultation processes.
- **Edit/Review:** External reviews and editing of draft reports provide opportunities to improve the readability and flow of the report.
- **Verify:** Inclusion of a Statement of Verification improves the credibility of the report by providing assurance on the reliability of the data presented and statements made. Further information on verification is presented in Section 3.8.
- **Inspire:** The report should start with an initial statement from top management that is visionary and inspires readers to discover more about the organisation's performance. The UNEP reporting ingredients suggest strategic direction, inspiration, shortcomings and personal objectives as best practice elements in a corporate statement.

Plan**In choosing a reporting period**

Give consideration to:

- Your stakeholder requirements
- Financial reporting cycle
- Monitoring periods
- Any existing mandatory reporting requirements
- Resources required

In choosing a reporting format

Give consideration to:

- Your stakeholder requirements
- Various reporting formats such as incorporation within the annual report, stand-alone hard copy, CD-ROM, electronic (by e-mail), newsletters, Internet, video and multi-media. Internet is a powerful and widely accessible reporting media
- Summary report versions for wider distribution and keeping printing costs down

Publish**When publishing your PER**

Give consideration to:

- How your stakeholders will receive the publication
- Deadlines given to internal and external support personnel
- Management sign-off
- Number of copies
- Verification schedule (where the report is verified)
- Keeping operational personnel involved throughout the publishing process

Distribute**In distributing and using your PER**

Give consideration to:

- How your stakeholders will receive the publication
- Making reference to the PER in other reports by the organisation
- Releasing the report internally
- Ensure that staff who interact with external stakeholders are aware of the PER
- Making stakeholders aware (eg. through displays, presentations, web-site)
- Actively use the report in public relations, strengthening community relations, raising internal awareness, creating market opportunities, meeting mandatory and signatory reporting requirements and submitting for external awards

Review**Obtaining feedback and reviewing**

Give consideration to:

- Cost-free and easy feedback possibilities
- Nominating appropriate contacts and contact details within the PER
- Evaluating, responding to and using feedback received
- Changing environmental performance indicators (OPIs, MPIs, ECIs), objectives, targets, and stakeholder needs for next reporting cycle

A range of logistical issues need to be considered in this final step of preparing a PER. These include, but are not limited to, choosing reporting periods and formats, publishing and distributing the PER and facilitating feedback and review. It is important to note that some organisations may choose to undertake the 'planning' stage of this step earlier in the process to gain an appreciation of the final product.

Plan

The report format and reporting period need to be confirmed in this step. Consideration needs to be given to issues such as stakeholder needs, existing reporting formats and reporting cycles, as well as available resources. A range of reporting formats can be used for environmental reporting, the most popular forms being paper-based and Internet reports.

Attention should also be given to possible synergies in reporting, for example, producing one report that satisfies voluntary/signatory environmental reporting needs as well as reporting requirements for the Australian Greenhouse Office's Greenhouse Challenge Program (see Section 3.5.2).

Publish

In publishing the PER, consideration needs to be given to timing, particularly if a deadline has to be met. Printing, internal clearance and verification (if undertaken) are all activities that can take longer than expected.

Distribute

Once the report is published, it is important to ensure that the stakeholder groups, identified in Step 2, either receive or are made aware of the report. Consideration needs to be given to how this will be best achieved. It is also equally important to ensure that internal awareness of the report is raised, and that it is promoted by staff involved in external relations. It is also good practice to request feedback from recipients of the report regarding their preferred format for receiving the next report. Options such as CD-ROM and e-mail may reduce printing costs significantly.

Review

In order to ensure adequate feedback, consideration needs to be given to provision of easy feedback mechanisms. It is good practice to provide a toll-free telephone number and/or postage-free envelope with the feedback form as well as e-mail, phone and fax details for returning feedback.

The review step for the next reporting cycle needs to consider not only the feedback received but also any changes in organisational structure, environmental aspects, environmental indicators, objectives and targets that will be needed to accommodate stakeholder requirements.

3.1 Introduction

This chapter provides a range of examples of the components/elements that can be included in a PER.

For each component there are a large number of possible 'key' and 'other' indicators, and it would be difficult for most organisations to report on all of them. The indicators chosen will depend on the nature and size of the organisation and the interests of the key stakeholders. Sections 3.2 to 3.6 provide a brief description of the five major report components/elements, listed below, and a few examples of possible indicators.

- Organisational context
- Management performance, policies and systems
- Stakeholder engagement
- Environmental performance
- Product or service performance

Examples of good reporting practice have also been included for some reporting components to assist in providing ideas for the preparation of reports. Additional information can be sourced from ISO 14031, the *Global Reporting Initiative (GRI)* and the *World Business Council for Sustainable Development's (WBCSD) Eco-efficiency Indicators and Reporting* (See Section 4).

In addition to describing the five major components of a PER, this chapter also discusses how to determine an appropriate format (Section 3.7), external verification of reports (Section 3.8) and future reporting trends (Section 3.9). While not covering major reporting components, these sections cover important additional elements and issues for consideration in determining the content and presentation of current and future reports.

3.2 Organisational Context

Components such as a management statement, profile of the reporting organisation, the scope of the report and environmental policy are critical elements for inclusion within a public environmental report.

3.2.1 Top management commitment

A strong statement of commitment from the Chief Executive Officer and/or the Board indicates to stakeholders the importance placed on environmental considerations. Openness, including recognition of the difficulties of achieving objectives, can be more effective than rhetorical statements. This may inspire the readers to explore the report in further detail. Top management commitment can also be shown through evidence that environmental issues are discussed at Board meetings.

3.2.2 Organisation's profile

It is good practice to include a brief profile of the organisation's activities, services and operations. This information could include (as appropriate) the name and legal structure of the organisation, stock exchange listings, the size of the organisation, the number of locations and employees, the sites at which the organisation operates, the major business or services provided and the economic contribution of the organisation (for example to local employment). The profile should also provide a measure of the culture of the organisation. It may also be appropriate to include major operational, structural or ownership changes that have occurred during the reporting period that affect the organisation's environmental performance - for example, commissioning of new plants or equipment.

3.2.3 The larger environment

In reporting an organisation's environmental performance, it is good practice to place it in the wider context, taking into account local, state, national and global issues that are relevant to the organisation. It may be appropriate to identify the organisation's key stakeholders (see Step 2), environmental aspects and its position in relation to the environment (see Step 3).

3.2.4 Latest environmental policy

It is good practice to include a current and concise version of the organisation's environmental policy (where one is available) in the report, to reinforce commitment and provide a framework for making improvements and measuring performance against policy objectives. The environmental policy should be given prominence within the report to demonstrate the company's commitment.

3.2.5 Management policies and systems

An outline of the organisation's environmental policies, programs and procedures that affect its environmental performance will set the tone and strategic direction of the PER (see Section 3.3).

3.2.6 Report scope

An outline of the scope of the report is helpful to provide the audience a context for understanding and evaluating information in subsequent sections. Possible ingredients may include the following:

- Coverage of report (eg. countries, products/services, divisions/facilities/joint ventures/subsidiaries). If coverage of the organisation is not complete, the report should give reasons why, and also provide an indication of the projected time-line for complete coverage.
- Reporting period (eg. fiscal/calendar year) for information provided.
- Date of most recent report, reporting history and frequency.

- Limitations regarding data, data collection processes and reporting conditions.
- Public accessibility of information or reports about environmental performance.
- Target audience groups for the report.
- Graphical and other illustrations to enhance the readability of the report.
- External verification of data reported within the report, data collection, transcription and aggregation processes and report coverage of organisation's environmental aspects and impacts. Stakeholder representation in external verification process and/or outcomes.
- A summary of goals and targets developed.

For organisations preparing PERs, a commitment to continually improve both performance and reports is important. The following is an example of how one company plans to continually improve its reports over time. It is good practice to include information on future reporting directions for the benefit of readers. Setting milestones to achieve best practice in reporting can further strengthen the organisation's external credibility and its commitment.

	1997/1998	1998/1999	1999/2000	2000/2001	2001-2003
FRAMEWORK					
Environmental	<p>EMS development and certification for Stanwell Power Station</p> <p>Develop action plans to improve key environmental issues</p> <p>Assess value of environmental management</p>	<p>EMS development for hydro-electric stations and Mackay Gas Turbine</p> <p>Develop action plans to reduce the impact of suppliers and customers</p> <p>Develop environmental objectives, targets and Key Performance Indicators integrated with improved efficiencies</p> <p>Adopt Sustainable Technology</p>	<p>EMS development for hydro-electric stations and Mackay Gas Turbine</p> <p>Define sustainability for SCL and future operations</p> <p>Review impact of major suppliers and contractors on SCL operations</p> <p>Adopt Sustainable Technology</p>	<p>Identify environmental indicators of sustainability</p> <p>Develop sustainability principles for SCL and future operations</p> <p>Adopt Sustainable Technology</p>	<p>Report on progress towards sustainability</p> <p>Report on continual improvement for sustainability processes and achievements</p>
Social	<p>Expand systems for employee and local community consultation and response</p>	<p>Develop an integrated health and safety policy</p> <p>Increase stakeholder dialogue and address concerns</p>	<p>Identify and address internal and broader local community issues, eg. jobs, industry, health</p> <p>Further increase stakeholder dialogue</p>	<p>Identify and address SCL's impact on the wider community</p> <p>Identify social indicators for sustainability</p>	<p>Report on full social implications of operations</p>
Financial	<p>Not covered in the 1997/98 Environmental Performance Report</p>	<p>Not covered in the 1998/99 EHS Performance Report</p>	<p>Review most appropriate reporting options</p> <p>Investigate financial indicators for environment, health and safety</p>	<p>Further develop reporting options</p>	<p>Work towards use of environmental, social and financial performance indicators</p> <p>Implement outcome of review</p>
VERIFICATION	<p>Not completed for the 1997/98 Environmental Performance Report</p>	<p>Review baseline data and data sources, include verification statement in the 1998/99 EHS Performance Report</p>	<p>Expand verification to cover increased disclosure</p>	<p>Complete detailed verification of environmental accounts and data</p>	<p>Provide detailed verification of all data and indicators</p>
STAKEHOLDERS	<p>Employees, Local Community, SCL Decision Makers, Environmental NGOs, Shareholders, Greenhouse Challenge Office</p>	<p>Build on 1997/98 focus, with greater emphasis on SCL decision makers, the ESAA, and the Wet Tropics Management Authority (WTMA)</p>	<p>As for prior years with increased focus on suppliers, consumers, contractors and national community</p>	<p>As for prior years with increased focus on SCL's industrial partners, industrial ecology and site sharing operations</p>	<p>National, regional and local stakeholders</p>

An example of organisational environmental reporting direction (Stanwell Corporation Limited, 1998/99).

3.3 Management Performance, Policies and Systems

This report component contains indicators of the reporting organisation's performance regarding compliance issues, and adherence to internal policies and standards. Information on an organisation's environmental policy, environmental management system(s) and structure should also be included here.

3.3.1 Management systems and programs

The report could outline environmental systems, programs and initiatives. If the organisation has an EMS, then a brief description should be included. The EMS may be a certified system (for example, ISO 14001), adherence to a voluntary industry code of practice, or an informal system or program developed by the organisation. The aim is to outline to stakeholders how the organisation deals with environmental issues. The following information could be included:

- performance against internal policies, standards and voluntary initiatives;
- environmental audit programs;
- environmental risk management strategies;
- implementation of cleaner production techniques or technologies;
- environmental training and awareness programs;
- how the organisation takes environmental factors into account in its research and development;
- relevant accident and emergency response programs or plans;
- complaint handling procedures; and
- policies relating to the green credentials of suppliers or contractors.

Possible quantitative information to include in this part of the report includes:

- the results of environmental audits;
- the number of staff with environmental responsibilities and accountabilities;
- the costs of environmental research and development projects;

- cleaner production technology programs and results;
- the percentage of employees receiving environmental training; and
- data that demonstrates the effectiveness of environmental training programs.

Graphical illustration of management systems may be more appealing to readers.

3.3.2 Compliance requirements

Compliance issues are fundamental for inclusion within a public report, particularly in demonstrating openness. Issues for consideration may include the following:

- Magnitude and nature of penalties for non-compliance with national, state and local regulations as well as any applicable international declarations, conventions, and treaties, associated with environmental regulatory requirements (eg. air quality, water quality);
- Percentage compliance with licence conditions;
- Response of management to improve performance on compliance matters including number of resolved and unresolved corrective actions; and
- Environmental liabilities under applicable laws and regulations including liabilities arising from contaminated land and water.

3.3.3 External recognition and activities

Environmental achievements and awards received in the reporting period can add credibility to some of the organisation's claims as well as assist in encouraging employee commitment and stakeholder support.

3.3.4 Suppliers

Some organisations may participate in supply chain initiatives, where suppliers are encouraged to exercise environmental awareness. Such achievement through purchasing policies and supply chain initiatives should be included in the PER.

3.3.5 Financial information

Stakeholders such as investors, insurers and employees have a clear interest in financial aspects such as risks, liabilities, competitiveness and future profitability of the organisation. Providing information on the following financial issues can be considered for inclusion within the report.

Environmental expenditure

Information on environmental expenditure can provide an indication of the organisation's commitment to environmental protection. It can also lead to potential cost savings through the implementation of cleaner production. Environmental expenditure may include:

- costs of waste disposal; and
- costs and savings associated with cleaner production measures (eg through re-use and recycling).

Environmental fees

If the organisation is required to pay environmental licence fees, taxes or charges as a condition for operations, then the fee details could be included within the report.

Donations and grants

The organisation may wish to include information about donations to non-profit environmental activities such as funding for academic research or community activities such as tree planting.

Environmental liabilities

An estimate of environmental liabilities may be of interest to many stakeholders, particularly investors, insurers and employees. A list of known liabilities associated with the sites, processes and products, as well as an indication of contingent liabilities that might arise under non-routine circumstances, should be included.

Benefits and opportunities

Although the measures introduced to improve the environmental performance often cost money, they also provide financial benefits in the longer term. Consequently, a discussion of the benefits and opportunities arising from environmental protection could provide a useful mechanism for promoting environmental protection to internal stakeholders. This may include savings resulting from investments made in environmental fields such as waste reduction and energy efficiency.

3.4 Stakeholder Engagement

This report component contains information on the process and methods by which both internal and external stakeholders are engaged.

3.4.1 Your organisation's communication with its stakeholders

It may be useful to include information about how (in addition to producing a PER) the organisation communicates with its stakeholders regarding its environmental management.

Possible information to report may include the following:

- Basis for defining, profiling, and selecting major stakeholders (eg. employees, investors, suppliers, customers, local authorities, public interest groups, non-governmental organisations);
- Methods of consultation with each stakeholder group (eg. surveys, focus groups, community panels, written communications), number of such consultations by type, information on feedback processes and opportunities for dialogue, and communication of environmental information with customers and shareholders;
- Type of information generated by such consultations;
- Complaint handling procedures, program efficiency and number and percentage of complaints addressed;
- Continuous improvement programs, including mechanisms for internal and external stakeholder contribution and feedback, summary of environmental improvements originated by stakeholder participation;
- Measurement of stakeholder attitude to organisation's environmental issues;
- Use of environmental information such as performance benchmarks and indicators;
- Plans for strengthening stakeholder engagement;
- Internal and external award schemes; and
- Details on educational programs aimed at increasing environmental awareness within community/learning institutions.

3.5 Environmental Performance

Environmental performance is measured by indicators of the reporting organisation's operational environmental performance, covering both the use of environmental resources or inputs, and the production of non-product outputs.

3.5.1 Input indicators

Energy consumption

Energy use has environmental implications through air pollution, climate change and depletion of non-renewable resources. Different energy sources have different environmental impacts and thus energy consumption by input type may be useful in reporting, depending on the type of the organisation (for example, electricity, gas, solar, wind or cogeneration). Monitoring and measuring energy use is useful in assisting with identifying areas for improvement in energy efficiency, and in demonstrating potential cost savings through the implementation of energy saving programs.

It may also be useful to discuss any energy improvement programs and energy efficiency measures implemented. Possible information to report on energy consumption includes:

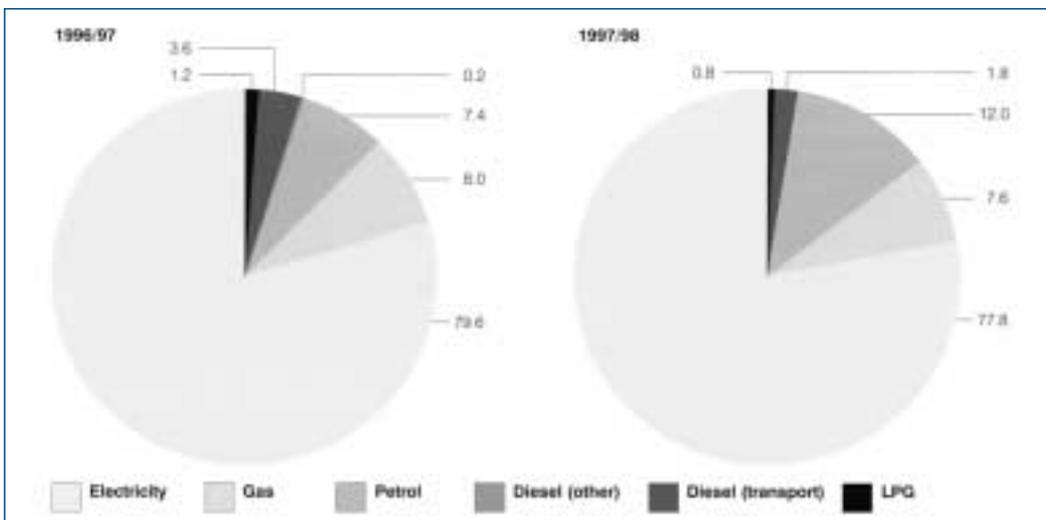
- quantity of electricity consumed per year and per unit output;
- quantity of natural gas consumed per year and per unit output;

- total fuel use (vehicle fuel and non-vehicle fuel and per unit of output);
- energy consumed in tonnes of coal equivalent;
- proportion of energy use sourced from renewable sources or through co-generation;
- proportion of equipment (including office equipment and lights) containing power saving devices;
- energy and cost savings through efficiency measures; and
- promotion of alternative energy sources or transport modes.

The transport of raw materials, goods and employees has a significant impact on energy consumption, particularly for service sector organisations. Data on employees' journeys to work could be included, particularly in metropolitan regions, where commuter journeys in private vehicles contribute significantly to environmental problems.

Possible quantitative information to report may include:

- fuel consumed by type per year, per head, or per unit output;
- vehicle kilometres travelled, total per head, or per unit output;
- vehicle kilometres and fuel consumption by journey type (eg product distribution, travel between work locations or employee journeys to and from work);
- vehicle fuel efficiency; and
- percentage of staff regularly travelling to work by public transport or car-pooling.



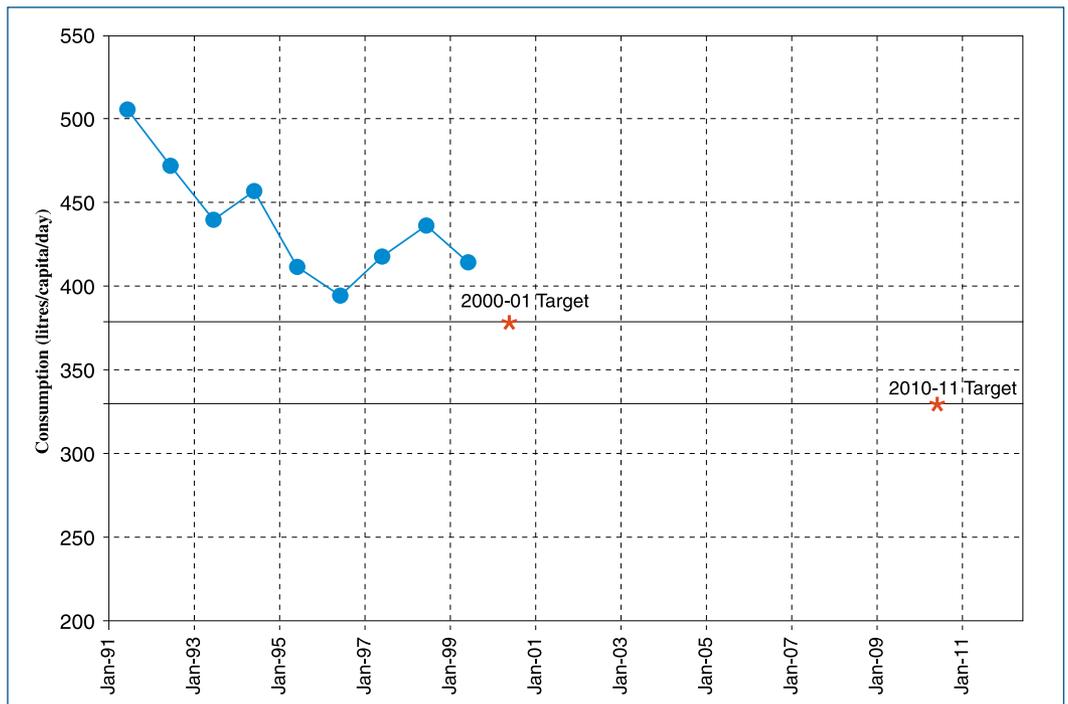
An example of reporting energy consumption (*The Body Shop, 1998*).

Water consumption

Water consumption is a core element of resource usage, as the supply of water in sufficient quantity and adequate quality becomes a major concern. Consumption of water for products and services may be included in reports, along with the type of water used (for example, bore, dam, tap, rain, sea or recycled). Examples of improvement programs, such as the introduction of water efficiency measures, water metering, recycling and re-use, may also be included.

Possible quantitative information to report includes:

- total water consumption per annum and per unit output;
- water consumed by various uses such as processing, cooling and sanitation;
- total and percentage saved through efficiency measures; and
- total and percentage of water recycled or re-used.

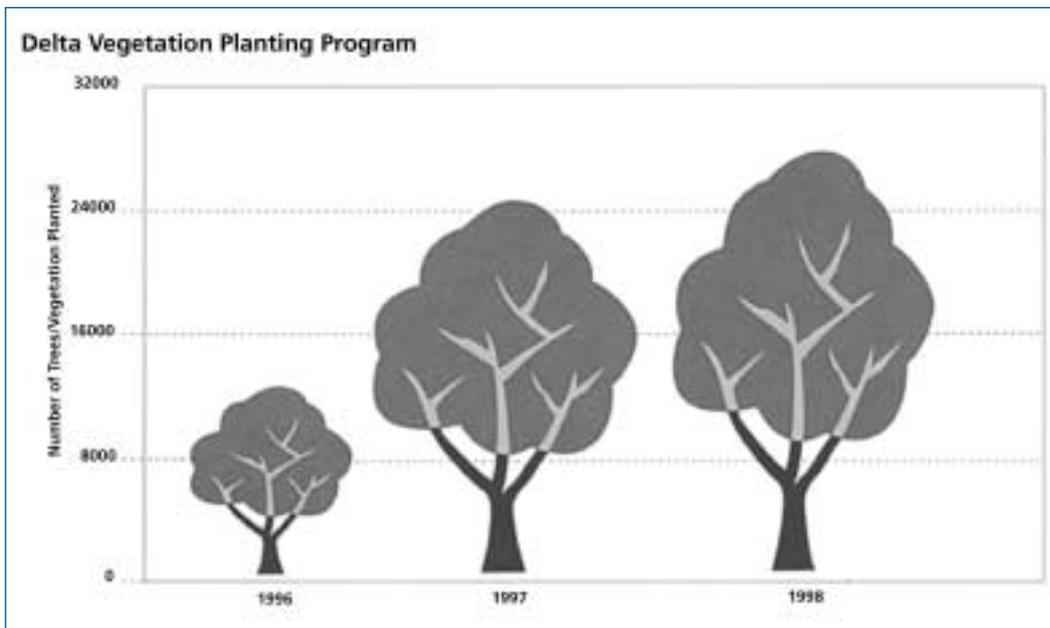


An example of reporting water consumption for Sydney residents within the Sydney Water Corporation's Annual Environment and Public Health Report, 1999 (SWC, 1999).

Land use and biodiversity

Some organisations occupy land with remnant native vegetation (and hence potential for high biodiversity) or use buffer zones to mitigate noise and odour effects. Where land is disturbed, the level and extent of disturbance and subsequent rehabilitation may be reported. Other issues such as soil erosion, dry land salinity, land used as carbon sinks (eg. plantations sequestering carbon resulting in carbon credits) and habitat impacts may also be reported depending on the type of organisation and industry sector. Possible information for reporting includes:

- area of land disturbed;
- area and percentage of land rehabilitated;
- area of land used as buffer zones;
- area of land subjected to dry land salinity;
- area of land with significant erosion of topsoil;
- level of habitat impacts and restoration as a result of organisation's operations; and
- area, number and species of vegetation planted in rehabilitation programs.



An example of revegetation/vegetation programs (Delta Electricity, 1999)

Materials and other resources used

In addition to energy, water and land, other materials used in processing may be included where considered relevant to environmental management. Some organisations will naturally have concerns about commercial confidentiality in reporting all resource uses. In these cases, consideration of what issues are of most interest to stakeholders may assist in deciding which resources to report on. Materials of interest are generally those that are 'environmentally sensitive' because they are scarce, hazardous, toxic or associated with significant potential environmental impacts.

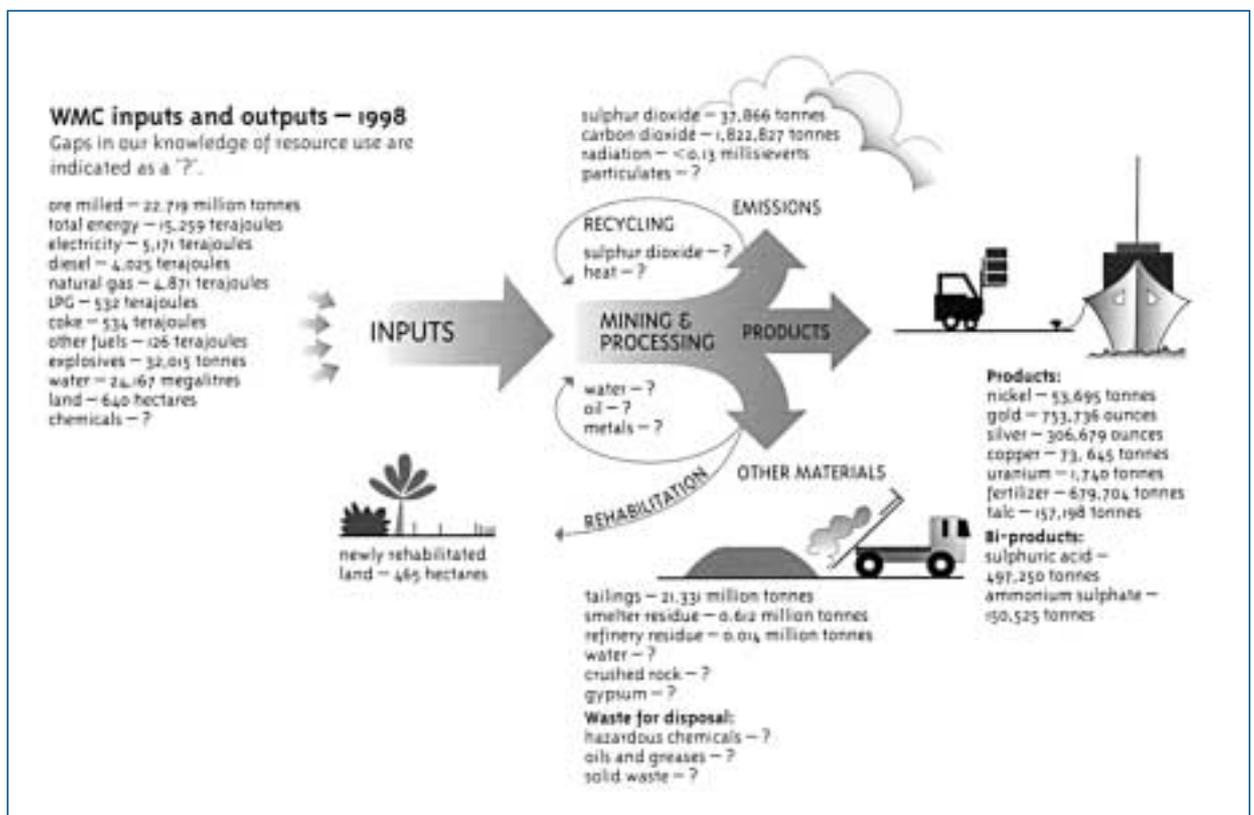
The source for inputs is also relevant. The report may indicate the major sources of environmentally sensitive raw materials, and whether or not the organisation has applied environmental criteria in selecting the suppliers. For example, consumers may be interested in the source of forest products. It may thus be appropriate to indicate whether the forest product inputs come from sustainably managed plantations or old growth forests, and whether they are grown locally or imported.

Possible quantitative information to report may include:

- quantity of each type of renewable and non-renewable resource used per year and per unit output;
- quantity of toxic or hazardous substances consumed per year and per unit output;
- percentage of inputs saved through efficiency measures; and
- quantity of inputs from each supply source.

The consumption of office supplies can contribute a significant proportion of an organisation's environmental impact, particularly in a service-orientated industry which produces little or no product-based outputs. The use of paper, photocopier and printer toner cartridges, for example, has an environmental impact through the consumption of renewable and non-renewable resources, and also through the impacts of their manufacture and disposal.

Implementation of environmental improvement measures could include switching to renewable and less resource-intensive alternatives, recycling materials, using recycled products, re-useable products (such as refillable toner cartridges), electronic mail, and photocopiers and printers capable of printing on both sides of a page.



An example of reporting materials used (WMC, 1998).

3.5.2 Non-product output indicators

Non-product outputs include emissions to land, air and water that are not considered products or by-products. Product outputs are discussed in Section 3.6.

Emissions to air

Emissions that can affect local air quality, or contribute to regional or global problems include:

- volatile organic compounds (VOCs) such as the solvents used in printing, cleaning and painting processes;
- ozone depleting substances (CFCs, HCFCs, PFCs) released from fridges, freezers, air-conditioning systems and foam manufacturing;
- ozone (O₃);
- sulphur dioxide (SO₂);
- nitrogen oxides (NO_x);
- air toxicants such as benzene;
- fine particulate emissions (pm10, pm2.5); and
- greenhouse gas emissions in terms of carbon dioxide equivalent (discussed below).

Possible information to report may include:

- quantity of key emissions, per year and per unit output and by type;
- number of days the facility exceeds emissions goals per year; and
- objectives, programs and targets regarding routine air emissions and progress results.

Transport is a major source of air pollution, particularly for service and transport-oriented organisations. Major pollutants include greenhouse gases, VOCs, NO_x, CO, SO₂, lead and particulates.

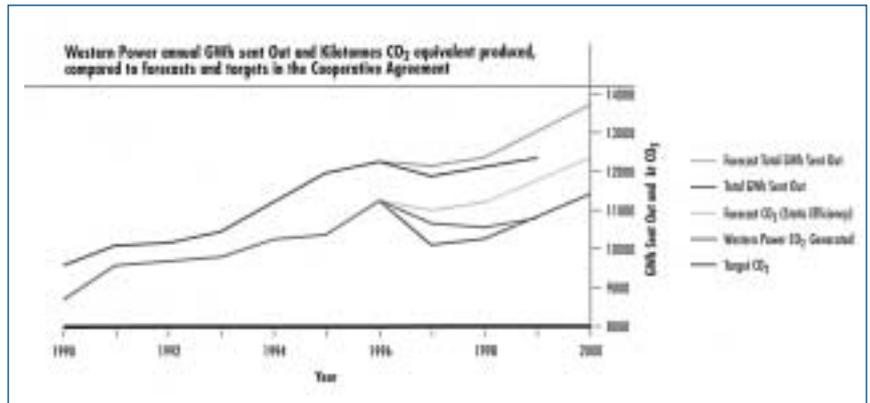
Greenhouse gas production

Greenhouse gas production is a ubiquitous aspect of economic activity (particularly through the consumption of fossil fuels) and so may merit a separate discussion depending on the type and size of the organisation. Participation in energy efficiency programs such as the Greenhouse Challenge Program (GCP), Energy Smart Buildings Program and the Energy Star Program could be mentioned.

Some reports combine annual environmental and greenhouse reporting (requirement under the GCP) within one report.

Possible information to report may include:

- quantity of greenhouse gas emissions (eg CO₂, CH₄, N₂O), in terms of their CO₂ equivalent (Global Warming Potential) per year and by unit output;
- estimated total contribution to production of greenhouse gases through the consumption of electricity sourced from fossil fuels;
- participation in programs such as the Greenhouse Challenge Program, including commitment to improvement; and
- objectives, programs and targets for reducing greenhouse gas emissions and progress toward results.



An example of reporting greenhouse gas production (Western Power, 1999).

Wastewater emissions

The report could include all significant wastewater emissions including discharges to sewer, waterways, groundwater and deep injection wells. Discussion of the impacts of such emissions on the natural environment may also be useful.

Possible quantitative information to report may include:

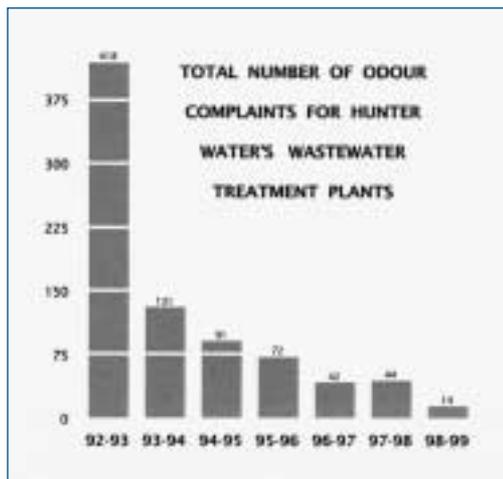
- volume and type of wastewater discharges. Parameters may include nutrients, heavy metals, temperature, salinity, biological oxygen demand and chemical oxygen demand;
- objectives, programs and targets regarding routine wastewater discharges and progress results; and
- data on the known or potential impacts of the emissions on receiving waters.

Noise, odour and other emissions

Noise, odour and other emissions (such as radiation, dust, light, vibration) from operations may impair local amenity or affect public health. Such issues may be included in the report where considered relevant. Reference to the level of community complaints and actions of the organisation taken to resolve problems may also need to be mentioned.

Possible quantitative information to report may include:

- emission levels at site boundary and at sensitive receptors;
- average and hourly pattern of emission levels at key monitoring sites;
- number of complaints, complaint handling procedures and processing efficiencies; and
- objectives, programs and targets regarding such emissions and progress results.



An example of reporting odour emissions (Hunter Water Corporation, 1999)

Solid waste generation and disposal

Waste reduction can be achieved by moving up the 'waste management hierarchy' from disposal to recycling to re-use and, ultimately, to avoidance. The organisation's progress in waste reduction can be reported along this step-wise process. It is useful to highlight the costs involved in waste disposal and the costs and benefits of avoidance, re-use and recycling (see Section 3.9.3 on environmental accounting). It may be appropriate to present the data by type of waste.

Possible quantitative information to report may include:

- quantity of waste generated, per annum and per unit output;
- percentage disposed to landfill or incineration, percentage diverted (recycled, re-used or reprocessed) and percentage avoided; and
- objectives, programs and targets regarding solid waste generation and reduction, and progress results.

Hazardous waste generation, treatment and disposal

The report may also include the type and amount of hazardous waste produced, the disposal methods, and the hazards associated with these wastes and selected disposal methods. It is also appropriate to discuss steps taken to reduce hazardous waste generation.

Possible quantitative information to report may include:

- type and quantity of hazardous waste generated per year and per unit output;
- volume of hazardous waste stored on- and off-site;
- treatment costs;
- disposal costs; and
- objectives, programs and targets regarding hazardous waste generation and reduction, and progress results.

Site contamination

The report may also mention any site contamination and its movement on- or off-site, as well as actions taken to manage and/or remediate such contamination. It is also appropriate to discuss steps taken to prevent further or future site contamination.

Possible quantitative information to report may include:

- numbers and location of contaminated sites and the type and extent of contamination at each site;
- costs and methods of managing and/or remediating site contamination;
- human health or ecological risk of the contaminated sites;
- liability costs (potential and/or actual) for site contamination; and
- programs to prevent further or future site contamination.

3.6 Product or Service Performance

Product or service performance is a measure of the reporting organisation's product/service performance in environmental terms. This section is relevant mostly to manufacturers and service related organisations, and those organisations with an advanced level of environmental awareness and management.

3.6.1 Product/service stewardship

There is a growing awareness of the importance of product/service stewardship, with organisations taking some responsibility for the environmental impacts arising over the life cycle of their goods and services.

Possible quantitative information to report may include:

- major environmental impacts associated with the life cycle of products and services, with quantitative estimates of such impacts; and
- programs or procedures to prevent or minimise potentially adverse impacts of products and services, including product stewardship initiatives.

3.6.2 Product design

A discussion of design improvements initiated by the organisation to improve the environmental performance of its products may be of interest to its stakeholders.

Possible information for reporting purposes includes:

- procedures to assist product and service designers to create products or services with reduced adverse life cycle impact; and
- the environmental attributes and improved performance of the products such as improved energy efficiency, use of recycled materials and improved recyclability.

3.6.3 Packaging

Since it uses resources and results in 'waste', packaging has a bearing on the environmental impacts of an organisation's products.

Possible quantitative information to report may include:

- quantity of packaging by type (glass, carton, aluminium, steel, recyclable and non-recyclable plastics or wood) used per year or per unit output;
- cost of packaging as a percentage of the product;
- percentage of secondary materials used in packaging;
- percentage of packaging materials recycled and/or re-used; and
- membership of the National Packaging Covenant and resulting improvements.

3.7 Possible Format of a PER

Public Environmental Reports may range from a stand-alone report to a few pages in an annual report. The size and content will depend on the size of the company, stakeholder requirements, target audience and the nature of the business. Small companies may produce a few pages as a stand-alone report and larger organisations a comprehensive report covering a range of sites and stakeholder issues. Irrespective of the format, a good balance between sound science and effective communication is required (see Step 7, Chapter 2).

As outlined in Sections 3.1 to 3.6, the major components of a PER typically include organisational context, management performance, policies and systems, stakeholder engagement, environmental performance and product or service performance. In addition, a PER can go on to include issues such as social reporting and environmental accounting (see Section 3.9). The format for a PER should reflect the components addressed and the presentation should comprise a mixture of text and graphics. The use of case studies to demonstrate and support particular points should also be considered.

An example of a report format (The Body Shop, 1998) is presented below. Note that the report has dedicated separate coverage to 'animal protection', and 'social reporting' which are significant stakeholder concerns to an organisation such as The Body Shop, but may not be seen as so relevant for other organisations.

The Body Shop Charter

Directors' Statement

Audit Highlights

About The Body Shop its people, its policies, its performance

Social Audit Report

Environmental Statement

- Introduction
- Verification Statement
- The Body Shop Environmental Policy
- Thinking Globally
- Striving for excellence
- Searching for sustainability
- Managing growth
- Managing energy
- Managing waste
- Controlling pollution
- Operating safely
- Our legal requirements
- Raising awareness
- Additional information

Animal Protection

Targets

Feedback form

An example of a PER format
(*The Body Shop, 1998*)

Organisations should not be expected to produce a top-quality environmental, sustainability or triple bottom line report (see Section 3.9) in their first year of reporting, but should rather be committed to continually improving their reports. Initial reports may simply serve to start the process of stakeholder consultation, establishing systems and gathering data for the purpose of reporting. Most organisations find that the process of reporting becomes easier in subsequent reporting years, as stakeholder engagement and data collection systems are built into management and operational processes.

It is good practice to develop a medium-term plan defining the organisation's reporting direction. This plan could also form part of the PER (see, for example, Stanwell Corporation Limited's approach to reporting in Section 3.2.6). An organisation may choose to aim at achieving a reporting standard that it is comfortable with over a period of, say, 5 years.

According to SustainAbility Ltd, there are several stages to reporting. These stages, adapted to suit Australian requirements, are shown below:

Stage 1

Green glossies, newsletters, videos. Short statement in annual report.

Stage 2

One-off environmental report, often linked to first formal policy statement.

Stage 3

Annual reporting, linked to environmental management system, but more text than figures.

Stage 4

Provision of full NPI-style performance data on annual basis. Input-output data for service companies. Corporate and site reports. Available on diskette or online. Environmental report referred to in annual report.

Stage 5

Sustainability reporting: Linking of environmental, economic and social aspects of corporate performance, supported by indicators of sustainability. Integration of full-cost accounting.

3.8 Third-Party Verification/ External Review

Accountability means the duty of one party to be answerable to another. Financial reporting to shareholders and environmental reporting to stakeholders are both examples of reporting within an accountability relationship. The primary purpose of a third-party independent verification of a PER is to legitimise this accountability relationship by providing assurance to the stakeholders that the information contained within the report is accurate. This assurance will add significant credibility to the PER. Other benefits include:

- Internal assurance including assurance to management that the information presented is a fair and accurate reflection of the organisation's performance;
- Independent advice on the organisation's reporting processes highlighting potential inefficiencies.

In general, verification involves confirming that the data reported and/or the systems used to generate them, are accurate and complete, and that the report provides a balanced view of the organisation's performance. In doing so, the verifier may use the qualitative principles outlined in Step 7 (Chapter 2), as well as the following principles as verification criteria:

- **Validity** – The validity of the data and its accuracy;
- **Inclusivity** – Consultation with relevant stakeholders;
- **Continual Improvement** – Achievement of objectives and targets, and steps taken to improve performance.

Verification is usually conducted by qualified external parties that are independent from the process of data collection and the generation of the report. Another alternative type of verification is review by external stakeholders such as community liaison groups, scientific or expert panels and non-government organisations.

There are currently no existing standards or guidelines for verification of environmental reports, although GRI is likely to develop guide notes as part of its guideline development process. It is good practice to include the scope

of the verification within the public verification statement to ensure transparency on the level of assertion provided. It is also good practice to make the accompanying verification report available publicly, if requested. Currently, the four primary levels of assertion shown below are used by verifiers.

There are four primary forms of verification, increasing in level of complexity and therefore time and cost. It is good practice to plan the process of verification as early in the reporting process as possible:

- **LEVEL 1: Data verification** – the checking of randomly selected data trails, focussing on ensuring that data and statements included in the report are accurate and fair.
- **LEVEL 2: Verification of completeness of reporting** – assessing the level of reporting against the organisation's policy, aspects and impacts, and objectives and targets, to assess the completeness of reporting against identified significant environmental impacts.
- **LEVEL 3: Report verification incorporating site level compliance auditing** – incorporating the level of compliance of operations at the site level into the verification process, to assess the accuracy of the report in representing the actual performance of the organisation.
- **LEVEL 4: Report verification incorporating re-sampling and analysis** – including re-sampling and analysis of data streams as part of the verification process to determine the accuracy of the data from site level.

All four levels of verification would generally require site visits by the verifiers. A combination of these processes can be used to suit the organisation's verification requirements. In general, Level 1 is appropriate for first-time reporters whereas a combination of Levels 1 and 2 is considered good practice. Inclusion of Level 3 is useful if no separate site audits are undertaken. Level 4 is generally only recommended for the largest of operators with significant potential for stakeholder scrutiny.

3.9 Future Reporting Trends

3.9.1 Sustainability reporting

While the reporting components and the reporting elements presented in Sections 3.1 to 3.8 cover environmental reporting comprehensively, international reporters are increasingly aiming to combine the reporting of their financial, environmental and social performance within the same format. This is referred to as sustainability or triple bottom line reporting. Sustainability reporting embraces environmental ingredients applicable to the organisation (see Sections 3.1 to 3.8), but also addresses social and economic issues and the relationship between these three dimensions of sustainability.

Internationally, the Global Reporting Initiative (GRI) is heading towards such a common and acceptable reporting framework. This is based on the belief that an organisation's bottom line is affected not only by its financial performance, but also by its social and environmental values and performance (see GRI in Section 4).

In order to build a complete sustainability report, an organisation will need to understand and assess its decision-making processes and performance across all three dimensions of sustainability. A sustainability report, however, is more than the sum of environmental, social and economic information. It must also seek to integrate this information, so as to assist readers to understand the inter-relations and balance between the three dimensions from the standpoint of both process (how decisions are made) and outcome (the results of decisions). Some organisations are beginning to explore the implications of these three dimensions for their public reporting programs (GRI, 1999).

3.9.2 Social reporting

In an environment looking toward triple bottom line reporting, it is often incorrectly perceived that social reporting is a completely new concept. In one form or another, social accounting and reporting has been in existence for decades. Theodore J. Kreps used the term 'social audit' for the first time in the 1940s in relation to organisations reporting on their social responsibilities. In France today, companies with more than 300 employees are legally required to produce a *Bilan Social*, an employee report. In the UK, annual financial reports are required by law to include social information on issues such as charitable donations, pension fund adequacy, employment data and employee share ownership schemes.

Australia has its share of social issues, some of which relate to organisations and become the focus of stakeholders scrutiny. These issues include aboriginal land rights, workplace health and safety, social impacts of industry, workforce diversity, freedom of association and provisions for the disabled at the workplace. Some organisations are beginning to address a few of the key social issues within their annual environmental/social reports.

Social Reporting involves the measurement of social performance against societal and stakeholder expectations. Reporting of operational performance against social indicators may address issues characterised under:

- Corporate (ethical standards, human rights);
- Employees (freedom of association, workforce diversity, child labour);
- Local and Global Community (community involvement and consultation, complaints);
- Customers (advertising standards).

3.9.3 Environmental accounting

Environmental accounting involves the documentation of environmental costs and income generated by an organisation's operations. Environmental accounting for organisations focuses on private costs, and tends not to incorporate costs external to the organisation such as local, regional and global impacts of air emissions. Such accounts are important not only to the organisation itself but investors, shareholders, creditors and financial and insurance institutions. These institutions can use the information to assess how an organisation's environmental performance affects its financial health, and management of environmental risks. The core elements of such accounts are described in Section 3.3.5 and the documentation of these accounts may lead to the following benefits:

- Better estimates of the true cost of a product or service may provide a drive to reduce costs and hence improve profitability;
- Identification and management of these costs is likely to lead to environmental benefits;
- Increased staff awareness of such costs and potential for reducing these costs; and
- Informed external stakeholders such as investors, shareholders, creditors and financial and insurance institutions.

4 Further Reading

NSW EPA 1997, Corporate Environmental Reporting: Why and How?

This document by the Economics and Environmental Reporting Branch of the NSW EPA was the first guide in Australia to be published by a regulatory agency on corporate environmental reporting. Its intention is to increase awareness within industry regarding voluntary reporting.

GRI guidelines

The US-based Coalition for Environmentally Responsible Economies (CERES), which was formed to promote environmentally responsible corporate behaviour in the US, is now responsible for developing an internationally accepted framework for environmental reporting known as the Global Reporting Initiative (GRI).

<http://www.globalreporting.org>

PERI guidelines

The Public Environmental Reporting Initiative (PERI) was established in 1993 by a group of nine North American companies. PERI issued reporting guidelines to help organisations improve their environmental reporting.

<http://www.nortel.com/cool/environ/peri.peri.html>

GEMI guidelines

Global Environmental Management Initiative (GEMI), a US-based organisation, has published a primer and a program for self-assessment. It outlines an environmental self-assessment program (ESAP) which is intended as an internal management tool, and not a source of public information.

GEMI 1994, *Environmental Reporting in A Total Quality Management Framework—a Primer*, GEMI, Washington USA

GEMI 1992, *Environmental Self-Assessment Program ('ESAP')*, GEMI, Washington USA

WICE guidelines

The World Industry Council for the Environment (WICE) was formed to help enterprises achieve sustainable development goals. Its guidance document on environmental reporting encourages enterprises to be more open about their environmental policies, practices and performance, and discusses the sort of information organisations might include in their reports.

World Industry Council for the Environment, 1994, *Environmental Reporting: A Manager's Guide*, WICE, Paris, France

Coming Clean

The International Institute for Sustainable Development (IISD), in a joint project with Deloitte Touche Tohmatsu International and SustainAbility Ltd, examined corporate environmental reporting for sustainable development in the context of corporate management processes. It suggests content for separate sustainable development reports.

International Institute for Sustainable Development 1993, *Coming Clean: Corporate Environmental Reporting*, IISD, London

UNEP guidelines

The United Nations Environment Program's *Company Environmental Reporting* includes a set of 50 criteria for reporting excellence, a core set of reporting ingredients for small and medium-sized enterprises and a survey ranking 100 environmental reports from around the world.

In 1996, UNEP published a follow-up report, *Engaging Stakeholders*. The first volume reviews a five-stage reporting model and the 50 key reporting elements identified in Company Environmental Reporting. The second volume examines 12 case studies.

United Nations Environment Program Industry and Environment 1994, *Company Environmental Reporting: A Measure of the Progress of Business and Industry Towards Sustainable Development*, Technical Report No. 24, UNEP – SustainAbility Ltd, London

United Nations Environment Program 1996, *Engaging Stakeholders, Vols 1 and 2*, UNEP – SustainAbility Ltd, London

Minerals Council of Australia

The Minerals Council of Australia has released a Code for Environmental Management. Signatories to the Code have an obligation to undertake a process of public environmental reporting. Draft guidelines have been prepared for these reporting obligations.

Minerals Council of Australia
216 Northbourne Avenue
Braddon 2612

Phone (06) 279-3600
<http://www.minerals.org.au>

ACBE guidelines

The UK Advisory Committee on Business and the Environment (ACBE) has developed a set of guidelines with examples of financial disclosures and environmental performance.

Advisory Committee on Business and the Environment 1997, *Environmental Reporting and the Financial Sector—An Approach to Good Practice* Department of the Environment, 151 Buckingham Palace Road, London SW1W 9SS.

CEFIC, Responsible Care – Health, Safety and Environment, 1998.

Outlines a common reporting framework for chemical companies and national chemical industry federations, and importantly encompasses health and safety for the first time. This agreed framework contains 16 core parameters for reporting and outlines the required reporting process.

WBCSD, Eco-efficiency Indicators and Reporting: Report on the Status of the Project's Work in Progress and Guideline for Pilot Application, 1999.

This report describes an overall framework of eco-efficiency indicators, proposed by the WBCSD as applicable to all types of businesses, for identifying, measuring and communicating eco-efficiency information. It serves as a basic guidance document for participants of proposed pilot studies intended to test the framework, ultimately leading to revisions and publication.

The ISO 14000 series

The International Standards Organisation is developing the ISO 14000 series for environmental management. The series will help organisations to manage their environmental impacts.

The EMS specification standards (AS/NZS ISO 14001) suggests regular monitoring and measurement of key organisational factors that impact on the environment. This can be achieved through an environmental performance evaluation, which can then be used as a basis for public reporting.

The ISO 14000 series includes:

- AS/NZS ISO 14001-1996 *Environmental management systems—Specification with guidance for use.*

- AS/NZS ISO 14004-1996 *Environmental management systems—General guidelines on principles, systems and supporting techniques.*

- AS/NZS ISO 14031.4 *Environmental Management—Environmental Performance Evaluation Guideline*

- AS/NZS ISO 14024 *Environmental labels and declarations—Environmental labelling type 1—Guiding principles and procedures*

- AS/NZS ISO 14040 *Life cycle assessment—Principles and guidelines.*

Copies of the ISO 14000 series and drafts are available from:

Standards Association of Australia
PO Box 1055, Strathfield NSW 2135
Ph: 1300 65 46 46, Fax: 1300 65 49 49

Awards for corporate environmental reports

Information on awards available for corporate environmental reports in Australia is available from:

Annual Reports Award Australia Inc.
Locked Bag 17, Australia Square NSW 1215
Ph (02) 9247 3962.
E-mail: awards@corpnet.com.au

Australian Minerals and Energy Environment Foundation (AMEEF)
9th floor, 128 Exhibition Street,
Melbourne Victoria 3000.
Ph (03) 9679 9913. Fax (03) 9679 9900.
E-mail: ameeef@amira.com.au

Banksia Environmental Foundation Corporate Environmental Management Award, 61 Gipps Street, Collingwood, Victoria 3066. Telephone (03) 9419 7188. Fax (03) 9419 7911. E-mail: info@banksia-foundation.asn.au

Environment Australia Website

This Framework and further information on public environmental reporting and other tools for use by organisations in moving towards sustainability can be found at Environment Australia's Eco-efficiency and Cleaner Production Homepage:
<http://www.environment.gov.au/eecp.html>

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Appendix 1: Feedback Form

This Reporting Framework is subject to continuous improvement over time through periodic review. The Framework retains the flexibility to accommodate changes arising in environmental and social reporting both in Australia and internationally. If you have pilot tested this framework on environmental reporting for your organisation or would like to contribute to its further evolution, please complete appropriate sections of this feedback form and return to:

Manager, Eco-efficiency Unit
Environment Protection Group
Environment Australia
GPO Box 787
Canberra ACT 2601

or email: cproduction@ea.gov.au

Have you used this document in developing or assisting your organisation's environmental reporting program? (Circle one) **YES** **NO**

Which sections of this document have you found useful? Which sections could be improved further?

About the Reporting Framework

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Why Publicly Report?

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Eight Steps to Preparing a Voluntary Public Environmental Report

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Possible Reporting Ingredients for Public Environmental Reporting

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Further Reading.....

.....

How could this Reporting Framework be further improved?

- Additional information on the process of reporting
- Additional information on environmental reporting ingredients
- Additional examples and case studies
- Additional information on environmental accounting
- Additional information on independent verification
- A web site with more information
- Additional information on social and economic reporting
- Additional information on integrating financial, social and environmental reporting
- Other (please specify).....



Appendix 2: Participating Organisations

This Reporting Framework was developed following extensive industry consultation throughout Australia. The following organisations participated in the consultation program, conducted by Snowy Mountains Engineering Corporation and the Australian Industry Group.

Abi Group Contractors Pty Limited	Central Hills Soil Construction Board	Egis Consulting Australia
ACTEW Corporation	Central Metropolitan College of TAFE, WA	Electricity Supply Association of Australia
Adelaide Hills Council	Cerebos Foods	Energetics Pty Ltd
AEI Basslink	CGE Australia	Energex
AGL	Chamber of Commerce & Industry of WA	Energy Efficiency Victoria
Agriculture Western Australia	Chambers and Galloway & Assoc.	Enhance Systems
AIP	City of Adelaide	Enproc Pty Limited
Airservices Australia	City of Boroondara Infrastructure Group	Environment Defenders Office
Alcoa of Australia	City of Burnside	Environment Victoria
Alexandrina Council	City of Freemantle	Environmental Community Design
Alinta Gas	City Of Melbourne	Environmental Contaminant Investigation
Alpha Chemicals (Australia) Pty Ltd	City of Monash	EPA Victoria
Amtcor Limited	City of Onkaparinga	ERIC Pty Ltd
AMPL Solutions	City of Perth	ETSA Utilities
Apache Energy	City of Port Adelaide	Evans Deakin Engineering Pty Ltd
Aprince Consulting	City of Salisbury	Fini Group of Companies
ASEHA Qld Inc	City of Unley	Forestry SA
Association of Liquidpaperboard Carton Manufacturers	City of West Torrens	Frankston City Council
Australasian Research & Development	City West Water	Freehill Hollingdale & Page
Australia Centre for Cleaner Production	Clayton Utz	Friends of Living (Christie Creek)
Australian Aluminium Council	Clean Air Society of Aust & NZ	Friends of Willunga Basin
Australian Bureau of Statistics	Cleanaway	Fuji Zerox
Australian Business	CO2 Emission Trading Pty Limited	Geo-Eng Australia Pty Ltd
Australian Chamber of Commerce & Industry	Coates Australia	Gold Coast City Council
Australian Environment International Pty Ltd	Coffey Geosciences	Gold Coast Water
Australian Industry Group	Comalco Aluminium Ltd	Golder Associates
Australian Museum	Commonwealth Department of Transport & Regional Services	Goodman Fielder
Australian National University	Corporate Environment Services Pty Ltd	Greenpeace Australia
Australian Plague Locust Commission	Corporate Environmental Consultancy	Gutteridge Haskins & Davey
Australian Society of CPA's	Corrs Chambers Westgarth	H S & E Services
AVCARE	Country Fire Authority	Halpern Glick Maunsell
Banksia Environmental Foundation	CRC Industries	Hamersley Iron Pty Ltd
Barclay Mowlem Construction Ltd	Croda Herbets Pty Ltd	Hamilton Environmental Resources Pty Ltd
Bayswater Integrated Catchment Management Committee (BICM)	CS Energy	Hazelwood Power
BDO Nelson Parkhill	CSBP Wesfarmers	Homestake Gold of Australia
Bechtel Australia	CSIRO EPO	Hyder Consulting (Australia) Pty Ltd
BHP	CSL Ltd	Hydromet Corporation Limited
Blackwood Basin Group	CSR Limited	IDP
Blake Dawson Waldron	Curtin University of Technology	Iluka Resources
Blue Circle Southern Cement	Dames & Moore	Incitec Fertilizers Ltd
Blue Mountains Catchment Management Committee	Davstoc Consulting	Institute of Chartered Accountants
Body Shop	Deacons Graham & James	Interface
Boral Ltd	Deakin University	Johnstone Environmental Technology Pty Ltd
Boral Resources (SA) Limited	Deloitte Touche Tohmatsu	Johnstone Shire Council
Box Hill Hospital	Delta Electricity	Kemcor Australia
BP Australia	Department for Environment, Heritage and Aboriginal Affairs	Knox City Council
Brisbane City Council	Department of Commerce & Trade, Executive Area	Kodak (Australia) Pty Ltd
Brisbane Education Centre	Department of Natural Resources & Environment	KPMG
Brisbane Water	Department of Transport and Urban Planning	Ku-ring-gai Municipal Council
BRL Hardy Limited	Design-Productivity	LA Trobe University
BSD Consultants	Dow Chemical (Australia) Limited	Landcom
Business Development Project Services, Qld	Earthwatch Australia	Leighton Contractors Pty Limited
Business Victoria	Ecobusiness Consultants	Lestar Manning Lawyer
C & W Optus Capral Aluminium Carter Holt Harvey Ltd	Ecoweb Human Ecology Services	Lever Rexona Pty Ltd
	Edmonds Management	LINFOX
		Local Government Association of Queensland
		Lockwood

Loy Yang Power
Mack Trucks Australia Pty Ltd
Macquarie University
Maher & Cooper Environmental Planners
Malleefowl Preservation Group Inc
Mallesons Stephen Jaques Perth
Management Frontiers
Mansell McIntyre
Maroochy Shire Council
Marsh Risk Consulting
Maslen Consulting Pty Ltd
Maunsell McIntyre
Max Winders and Associates
Melbourne University
Melbourne Water
Metalcorp Ltd
Middletons Moore & Bevins
Minerals Council of Australia
Ministry for Planning WA
Monash University
Moreland City Council
Mount Isa Mines
Municipal Association of Victoria
Murdoch University
Nata Certification Services International
National Australia Bank
National Environment Protection Council
National Parks Foundation of S.A. Inc
Nationwide Oil
Natural Step
NDC Ltd
Nike Australia Pty Ltd
Normandy Mining Limited
NORTH LIMITED
Northern Rivers Regional Strategy
NSW Agriculture
NSW Department of State &
Regional Development
NSW Department of Transport
NSW Department of Urban Affairs
& Planning
NSW Environmental Protection Agency
NSW Premier's Department
NSW Treasury
Nufarm Limited
Olympic Coordination Authority
Outlook Management
Pacific Air & Environment
Pacific Power
Pacrim Environmental Pty Ltd
PASMINGO Ltd
Passenger Transport Board
Penfold & Associates
Permaculture Association of South Australia
Peter J Ramsay & Associates
Philip Morris Corporate Services
Placer Dome Asia Pacific
Powerlink Queensland PPK Environment and
Infrastructure Pty Ltd
Price WaterhouseCoopers
Primary Industries & Resources
South Australia
Qantas Airways
QCL GROUP
QED Pty Ltd

Qld Dept of Main Roads
Qld Dept of Mines and Energy
Quality Assurance Services
Queensland Consultative Council
Queensland Mining Council
Queensland University of Technology
QUESTACON
Rail Services Australia
Ramtaps Pty Ltd
Reliance Manufacturing Company
Rio Tinto plc
RMIT University
Roger Alsop Consulting
Ross Barr & Associates
Rothmans of Pall Mall (Australia) Limited
SA Employers' Chamber of Commerce
and Industry
SA Fishing Industry Council
SA Water
SAFIC
Santos Ltd
SCARM High Level Steering Group
on Water
Schiavello Group
Shell Coal Pty Ltd
Shell Refining (Aust) Pty Ltd
Shell Services International
Sinclair Knight Merz
Snowy Hydro Limited
Snowy Mountains Engineering Corporation
Sons of Gwalia Ltd
South Australian EPA
South Australian Farmers Federation
South East Water Ltd
Stanwell Corporation Limited
State Forests of NSW
State Water Projects
Strike & Associates
Sustainable Industries Division
Sydney Catchment Authority
Sydney Organising Committee for the
Olympic Games (SOCOG)
Sydney Water Corporation
Sydney Water Retail Business
T & V Grainger (Consultants)
T J Waters Environmental Management
Consultancy TAFE Granville College
Tarong Energy
Telstra Corporation Ltd
Teys Bros (Beenleigh) Pty Ltd
The Yalumba Wine Company
Thiess Contractors Pty Ltd
Thiess Environmental Services
Tim Cummins & Associates Pty Ltd
Tiwest Joint Venture
Toorong Zoo
Toowoomba City Council
Toowoomba Foundry
Transfield Coating
Transfield Construction Queensland
Transfield Maintenance
Transgrid
True Organics
TRW Steering & Suspension Australia
TXU

TYCO Water
Unilever Foods – Rosella
United Energy
University of Melbourne
University of Newcastle
University of Notre Dame Australia
University of NSW
University of Queensland
University of Western Sydney
Upper Torrens Land Management Program
V.T.H.C
Victorian Chamber of Mines
WA Department of Environmental Protection
WA Environment Protection Authority
WA Municipal Association
WA Water Corporation
Walker Environmental Consultancy
Waste Audit & Consultancy Services
Waste Service NSW
Water & Rivers Commission
Water Reform Unit
Western Mining Corporation
Western Power Corporation
Westpac Banking Corporation
Westpac Investment Management
Wharlington International Pty Ltd
WSL Consultants Pty Ltd

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