Environmental Accounting Guidelines 2002

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Ministry of the Environment

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Introduction

(1) Background of Environmental Accounting

Today an increasing number of companies and other organizations are engaging in environmental management as part of their management strategies to specify measures for dealing with environmental issues and to internally carry out environmental conservation activities. Environmental accounting is a tool to supplement environmental management.

Environmental accounting data is not only used by companies or other organizations internally, but is also made public through disclosure in environmental reports.

The disclosure of environmental accounting data as one of the key elements in an environmental report enables those parties utilizing this information to get an understanding of the company's stance on environmental conservation and how it specifically deals with environmental issues. At the same time, a more comprehensive grasp of the companies and other organizations' environmental information can be obtained.

(2) Necessity of Environmental Accounting

The quantitative management of environmental conservation activities is an effective way of achieving and maintaining sound business management. In other words, in carrying out environmental conservation activities, a company or other organizations can accurately identify and measure investments and costs related to environmental conservation activities, and can prepare and analyze this data. By having better insight into the potential benefit of these investments and costs, the company can not only improve the efficiency of its activities, but environmental accounting also plays a very important role in supporting rational decision-making.

In addition, companies and other organizations are required to have accountability to stakeholders, such as consumers, business partners, investors and employees, when utilizing environmental resources, i.e. public goods, for their business activities. Disclosure of environmental accounting information is a key process in performing accountability. Consequently, environmental accounting helps companies and other organizations boost their public trust and confidence and are associated with receiving a fair assessment.

(3) Environmental Accounting under These Guidelines

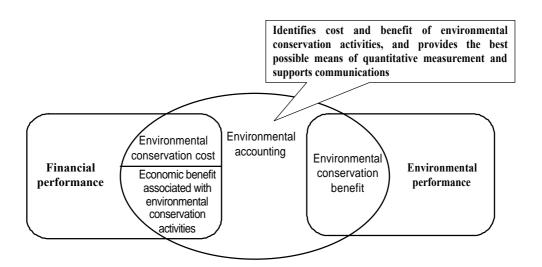
There are many dimensions to environmental accounting.

Environmental accounting covers two distinct contexts. It can be used to provide insight on the interaction between the environment and a nation or region, or can target the activities of a company or other organization.

Environmental accounting, within the framework of these guidelines, mainly focuses on companies and other organizations. Herein the term company refers not only to private corporations but also includes such organizations as public interest companies and municipal governments.

Information obtained from environmental accounting by companies is given in two forms: monetary value and physical units. Explanations accompany all numerical figures.

Environmental accounting, as described within these guidelines, is composed of three key facets: environmental conservation cost (monetary value), environmental conservation benefits (physical units), and the economic benefit associated with environmental conservation activities (monetary value). Put in other words, environmental accounting is structured to identify, measure and communicate a company's activities based on its environmental conservation cost or economic benefit associated with environmental conservation activities, the company's financial performance which is expressed in monetary value, and its environmental conservation benefits, the organization's environmental performance, which is designated in physical units.



1. What is Environmental Accounting?

1.1 Definition

Environmental accounting, as defined in these guidelines, aims at achieving sustainable development, maintaining a favorable relationship with the community, and pursuing effective and efficient environmental conservation activities. These accounting procedures allow a company to identify the cost of environmental conservation during the normal course of business, identify benefit gained from such activities, provide the best possible means of quantitative measurement (in monetary value or physical units) and support the communication of its results.

Herein, environmental conservation is defined as the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities. The environmental impacts are the burden on the environment from business operations or other human activities and potential obstacles which may hinder the preservation of a favorable environment.

1.2 Functions and Roles of Environmental Accounting

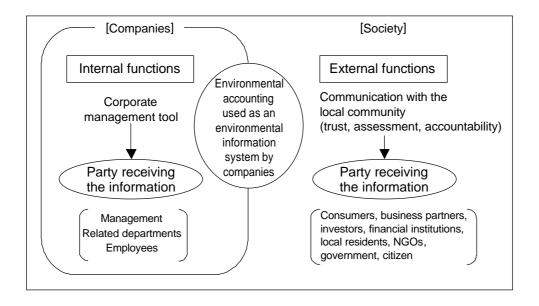
The functions of environmental accounting are divided into internal and external functions.

(1) Internal Functions

As one step of a company's environmental information system, internal function makes it possible to manage environmental conservation cost and analyze the cost of environmental conservation activities versus the benefit obtained, and promotes effective and efficient environmental conservation activities through suitable decision-making.

(2) External Functions

By disclosing the quantitatively measured results of its environmental conservation activities, external functions allow a company to influence the decision-making of stakeholders, such as consumers, investors, and local residents.



Internal functions are carried out within a company. They assess the cost incurred by environmental conservation activities and the related benefits, and are beneficial in improving the efficiency and effectiveness of environmental conservation activities and help in gaining an understanding of what impacts such activities might have on business operations. By using environmental accounting as an environmental information system, it plays the role of a tool to be employed by management and related business segments.

External functions are effective in conveying information about a company's environmental activities to stakeholders. Environmental accounting data is made public through environmental reports, and covers a company's stance on environmental conservation activities and concrete measures being taken by the company. By disclosing such information, society's trust and confidence in the company improves and aids in achieving a better public assessment. Therefore, environmental accounting not only fulfils a company's accountability to people outside the company, such as consumers, investors and local residents, but also facilitates attaining a fairer corporate assessment, not just from the standpoint of environmental conservation.

1.3 Basic Dimensions of Environmental Accounting

(1) Relevance

Environmental accounting should provide valid information related to a company's environmental conservation costs and benefits from associated activities which contributes to the decision-making of stakeholders. [Explanation 01]

[Explanation 01] Relevant to the Goal

The goal is to provide information beneficial to stakeholders in their decision-making.

a. Materiality and Significance

Consideration should be given to the materiality and significance of relevance. [Explanation 02]

[Explanation 02] Aspects of Materiality and Significance

In environmental accounting, materiality is placed on the aspects of quantity and significance is placed on the aspects of quality. From the standpoint of the materiality, consideration is given to the quantitative impact of data that is expressed in monetary value or physical units. The significance focuses on the quality of information from the standpoint of environmental conservation or the future impact that it carries.

(2) Reliability

Environmental accounting should eliminate seriously inaccurate or biased data and aid in building the trust and reliability of stakeholders.

a. Faithful Representation

When disclosing environmental accounting data, it should be represented accurately, faithfully. [Explanation 03]

[Explanation 03] Faithful Representation

In addition to the fact that the information must be accurate and without error, it must represent the costs and benefits that could be reasonably expected to represent without misleading.

b. Substance Over Form

Information disclosure should not just be a mere formality of following steps laid out within these guidelines. When necessary, the company should determine an appropriate method of disclosure which conforms to and accurately describes the actual environmental activities being conducted. [Explanation 04]

[Explanation 04] Prioritizing Substantiality

In the event that the substantiality of the information is not fully communicated when following the format set out by these guidelines, necessary supplementary information should be provided to better explain reality.

c. Neutrality

Information that is disclosed taking a fair and impartial stance. [Explanation 05]

[Explanation 05] Fair and Impartial Stance

A fair and impartial stance is when the company avoids the arbitrary selection of information or intentionally direct readers toward a given conclusion.

d. Completeness

The scope of environmental accounting should extend to all material and significant information for all environmental conservation activities.

e. Prudence

Information that may be vague or unclear should be handled carefully and the nature, scope and grounds on which it is based should be made clear. [Explanation 06]

[Explanation 06] Careful Handling

Careful selection is necessary in regard to projected results and predicted comprehensive impact. If these results or impacts are disclosed then the premises and reasoning behind this information should be clearly stated to prevent any misunderstandings by stakeholders.

(3) Understandability

By achieving understandability of disclosure of necessary environmental accounting data, environmental accounting should eliminate the possibility of any mistaken judgment about the company's environmental conservation activities. [Explanation 07]

[Explanation 07] Easy to Comprehend Wording

To ensure that the disclosed information is easy to understand for stakeholders, wording should be made a simple as possible. No matter how complex the content might be, it is necessary to disclose all essential information.

(4) Comparability

Environmental accounting makes it possible for a company to make year-on-year comparisons. Information provided should be comparable with different companies in the same sector. [Explanation 08]

[Explanation 08] Assuring Comparability

When disclosing environmental accounting data, it is important to assure that comparability to avoid misconceptions by stakeholders. Methods of comparison include comparisons of results between different fiscal years for the same company or comparisons for the same fiscal year with a peer company. Currently, in certain cases comparisons may be difficult even if all companies follow these guidelines, as methods have yet to be established for certain areas. Consequently, these guidelines aim for better comparability in the future. In the case where there are several methods to choose from, we are careful to clarify the approach taken.

(5) Verifiability

Environmental accounting data should be verifiable from an objective standpoint. [Explanation 09]

[Explanation 09] Verifiable Information

Verifiable information is data for which the same results can be obtained when using premises, standards, and methods identical to those used by the party which created the data.

1.4 Structural Elements of Environmental Accounting

Environmental accounting as defined under these guidelines consists of the following structural elements with the purpose of attaining two types of benefits derived from costs incurred from environmental conservation activities during the regular course of business.

(1) Environmental Conservation Cost

Investments and expense related to the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities are measured in monetary value.

Investment amounts are expenditures allocated during a target period for the purpose of environmental conservation. The benefits from these investments are seen over several periods and are recorded as expense during the depreciation period (the amount of depreciable assets recorded during the period under financial accounting standards).

Expense amounts refer to the expense or losses recorded under financial accounting standards resulting from the consumption of goods or services for the purpose of environmental conservation.

(2) Environmental Conservation Benefit

Benefits obtained from the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities are measured in physical units.

(3) Economic Benefit Associated with Environmental Conservation Activities

Benefits to a company's profit as a result of carrying forward with environmental conservation activities are measured in monetary value.

(1) Environmental Conservation Cost [Monetary Value]

Investments and expenses related to the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities.

(3) Economic Benefit Associated with Environmental Conservation Activities [Monetary Value]

Benefits to company's profits as a result of carrying forward with environmental conservation activities.

(2) Environmental Conservation Benefit [Physical Units]

Benefits obtained from the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities.

The environmental costs outlined within these guidelines do not represent social costs. Social costs differ from a company's usual cost burden and are those costs resulting from a business' impact on society. [Explanation 10]

[Explanation 10] Social Cost

In conducting environmental conservation activities, a company has a variety of choices whether to merely conform to legal statutes or whether it should take a more aggressive stance in reducing environmental impacts. Depending on the content of activities, the incurred environmental cost will fluctuate.

As a company's environmental conservation activities do not reduce all the impacts its business operations may cause, a company inevitably places an impact on the environment. Because of this, third parties which may have no direct ties can be subject to adverse impacts, such as harm to health, agricultural products and the fishing industry.

2. Basic Environmental Accounting Elements

2.1 Significant Environmental Accounting Policies

A premise of employing environmental accounting is that the goals of such environmental accounting activities should be made clear. It is necessary to ensure that the goals of environmental accounting conform with the company's managerial policies and targets as related to environmental conservation.

The following elements need to be defined.

- Target period
- Aggregation scope
- Calculation standards for environmental conservation costs
- Calculation standards for environmental conservation benefits
- Calculation standards for economic benefits associated with environmental conservation activities

In addition, when disclosing the results of environmental accounting procedures, should any changes be made to the aforementioned elements, the following factors must be disclosed, notification of a change, note of changes to content, the reason of the change and the impact of the change.

2.2 Target Period and Scope of Calculations

(1) Target Period

In principle, the target period covered should be the same as the period covered by the company's environmental report. Basically, information pertaining to the company's financial accounting, environmental activities and environmental accounting should all be coordinated to match the said company's business (fiscal) year. [Explanation 11]

(2) Aggregation scope

The aggregation scope should also conform with that of the environmental report. Fundamentally, scope should be companywide.

In addition, scope can be adjusted when necessary to collect data for a corporate group or individual business site. It is best to extend the scope of accounting successively to conform with a company's actual business conditions. [Explanation 11]

a. Companywide

In principle, information pertaining to financial accounting, environmental conservation activities, and environmental accounting should be coordinated to use identical reporting units for the entire company.

b. Corporate Group

A group consisting of subsidiaries and affiliates included in the company's financial statements.

Business activities do not only take place at the parent but also involve subsidiaries, such as when the parent transfers production to a subsidiary. Therefore, to comprehend the actual conditions of a company's environmental conservation activities and its related environmental impacts, it is necessary to employ environmental accounting to the entire group.

The scope of the corporate group should be in accordance with the scope of the company's consolidated financial statements. This will make it easier to understand the correlation between the corporate group's economic activities and the environmental accounting data.

Moreover, another method to determine the importance of environmental conservation activities is to look at the amount of environmental impact caused by the corporate group and its ratio of environmental conservation costs.

c. Business Site

An individual business site.

By employing environmental accounting at one of its individual business sites, the company can obtain information that can facilitate effective and efficient environmental conservation activities aimed at resolving the local community's environmental issues. In addition, the disclosure of results can aid in promoting communications between the company and the local community, which is a major stakeholder.

[Explanation 11] Target Period and Aggregation scope

In general, it is believed the target period and aggregation scope should be the same as that of the environmental report. But target period and scope should always be clearly defined, for example in the case of information pertaining to consolidation, as they may not coincide with the practices prescribed within these guidelines.

3. Measuring Cost and Benefit

3.1 Environmental Conservation Cost

Environmental conservation cost refers to the investment and costs, measured in monetary value, allocated for the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities.

3.1.1 Content of Environmental Conservation Cost

(1) Investment amounts and Cost amounts

Investment amounts here refer to the expenditures of capital investment a company spends on depreciable assets for the purpose of environmental conservation.

This information helps to obtain information related to capital injected into environmental conservation activities, in the case that environmental conservation activities generate long-term benefits.

Expense amounts are portions of the company's overall expenses and are the amounts used for the purpose of environmental conservation.

Tracking expense aids in obtaining information related to cost accrued to the current period to achieve benefit from environmental conservation activities.

(2) Objective Standards

Whether a specific individual cost can be categorized as an environmental conservation cost depends on the objective standards.

Objective standards are those criteria for extracting cost that has been spent for the purpose of environmental conservation.

3.1.2 Environmental Conservation Cost Categories

Based on the relationship between business activities and environmental impact, these guidelines categorize information based on key business operations, administrative, R&D, social and other activities.

Key business operations are the series of activities covering the purchase of materials and services, manufacturing and distribution, sales and supply, but exclude administrative, R&D and social activities.

Category	Content	
Business area cost	Environmental conservation cost to control environmental impacts which	
	result from key business operations within the business area	
Upstream/downstream cost	Environmental conservation cost to control environmental impacts which	
	result from key business operations upstream or downstream	
Administration cost	Environmental conservation cost stemming from administrative activities	
R&D cost	Environmental conservation cost stemming from R&D activities	
Social activity cost	Environmental conservation cost stemming from social activities	
Environmental remediation	Cost incurred for dealing with environmental degradation	
cost		
Other cost	Other costs related to environmental conservation	

(1) Business Area Cost

This cost is for activities to reduce environmental impact which occurs within the business area due to key business operations. The business area is the region where the company can directly manage environmental impacts. Business area cost associated with environmental conservation is divided into three categories, pollution prevention cost, global environmental conservation cost and resource recycling cost.

(1)-1 Pollution Prevention Cost

Pollution is defined as the creation of harmful impacts by business or other activities which damage public health or degradation of the living environment. Specific types of pollution include air, water, ground, noise, vibration, odor, and ground sinkage.

Pollution prevention costs are those costs related to the reduction of a production facility's environmental impact or spending for end-of-pipe solutions, facilities or equipment attached to the end of production facilities. [Explanation 12]

- 1) Cost for preventing air pollution (including acid rain)
- 2) Cost for preventing water pollution
- 3) Cost for preventing ground contamination
- 4) Cost for preventing noise pollution
- 5) Cost for preventing vibration pollution
- 6) Cost for preventing odor pollution
- 7) Cost for preventing ground sinkage
- 8) Cost for preventing other types of pollution

[Explanation 12] Characteristic of Pollution Prevention Cost

Pollution prevention costs do not only involve end-of-pipe solutions but also incorporate spending for clean production. Moreover, this includes compliance cost used to maintain compliance with legal regulations.

(1)-2 Global Environmental Conservation Cost

Global environmental conservation costs are those costs associated with negative environmental impacts on the global environment or a wide portion of it, resulting from human activities. Costs are allocated for the prevention of global warming, to prevent the ozone depletion and other global environmental conservation efforts. [Explanation 13]

- 1) Cost for preventing global warming and energy conservation
- 2) Cost for preventing the ozone depletion
- 3) Cost for other global environmental conservation activities

[Explanation 13] Cost for Preventing Global Warming

Cost connected with the prevention of global warming includes expenses for curbing the emission of greenhouse gases, and also absorbing and solidifying such gases.

(1)-3 Resource Circulation Cost

Resource circulation refers to the circulating use of reusable resources, whether valuable or not. Resource circulation cost is the cost incurred for sustainable resource recycling. [Explanation14]

- 1) Cost for the efficient utilization of resources [Explanation 15]
- 2) Cost for recycling industrial waste [Explanation 16]
- 3) Cost for recycling municipal waste [Explanation 16]
- 4) Cost for disposal of industrial waste [Explanation 17] [Explanation 18]
- 5) Cost for disposal of municipal waste [Explanation 17] [Explanation 18]
- 6) Cost contributing to resource circulation

[Explanation 14] Handling Gain on Sale of By-Products

The income generated from the sale of valuables derived from the intermediate disposal of wastes is categorized as an economic benefit associated with environmental conservation activities and therefore cannot offset resource circulating.

[Explanation 15] Scope of Cost for the Effective Utilization of Resources

Cost allocation to mitigate the amount of waste generated at the production stage and cost for water recycling. Examples of such costs are spending to improve yield rates (less raw material waste), conserve water and for the utilization of rainwater.

[Explanation 16] Scope of Cost for Waste Recycling

Costs in this category are allocated for reuse or recycling. For example, outsourcing costs for the purpose of recycling.

[Explanation 17] Scope of Cost for Waste Disposal

These are costs allocated for the intermediate disposal of waste, excluding spending for recycling, and costs for final disposal. Examples of these expenses include heat recovery, the dewatering of sludge and landfill.

[Explanation 18] Characteristic of Waste Disposal Cost

The purpose of waste disposal costs is not to prevent the occurrence of environmental impact but to deal with those environmental impacts that have already occurred.

(2) Upstream/Downstream Cost

Costs incurred upstream and downstream of the business area, or any related costs for the purpose of curtailing environmental impact. Upstream refers to operations prior to the provision of goods or services. Downstream entails all activities that take place once the products or services have left the business site, associated with a company's production and sales of products, and consumption and disposal of containers and packaging. [Explanation 19]

- 1) The difference between the cost of conventionally purchased materials or services and the cost of those materials and services procured through green purchasing (i.e. goods and services which contribute to reducing environmental impact)
- 2) Additional cost for supplying environmentally conscious products
- 3) Additional cost for reducing the environmental impact of containers and packaging
- 4) Cost for the collection, recycling, resale and proper disposal of used products
- 5) Other upstream and downstream costs [Explanation 20]

[Explanation 19] Revenue for Sale of Valuables

Revenue from the sale of valuables, reused and recycled materials of collected used products, is categorized as an economic benefit associated with environmental conservation activities and therefore does not offset upstream/downstream costs.

[Explanation 20] Categorizing Environmental Conservation Cost for Trade Associations

A trade association's cost pertaining to environmental conservation activities associated with elements 1) - 4) above are recorded as other upstream/downstream costs.

(3) Administration Cost

These costs are defined as those costs spent for administering environmental conservation activities and which indirectly contribute to curtailing environmental impacts stemming from business operations and also spending for external communications, such as disclosure of environmental information.

- 1) Cost for the implementation of an environmental management system
- 2) Cost for disclosing environmental information and environmental advertising
- 3) Cost for monitoring environmental impacts [Explanation 21]
- 4) Cost for training employees on environmental issues
- 5) Cost for environmental improvement activities, including nature conservation, planting of greenery, beautification, and landscape preservation, at or in the vicinity of the business site

[Explanation 21] Boundary of Costs for Monitoring Environmental Impact

This is the cost incurred to monitor each individual environmental impact. This includes the cost of tracking the release and transfer of chemical substances, such as PRTR.

(4) R&D Cost

The cost is spending for research and development activities allocated to environmental conservation.

- 1) R&D cost to develop products that contribute to environmental conservation
- 2) R&D cost to curtail environmental impact at the product manufacturing stage
- 3) Other R&D cost associated to the curtailment of environmental impact at the distribution stage or the marketing stage of products

(5) Social Activity Cost

These are costs which are related to environmental conservation activities that a company may carry out as a part of its social activities but not directly related to its business activities.

- Cost for environmental improvement activities, including nature conservation, planting of greenery, beautification and landscape preservation, with the exception of the business site or surrounding vicinity
- 2) Cost related to donation or financial support of environmental groups
- Cost associated with various social activities, such as the financial support of a local community's environmental conservation activities and the disclosure of information to the local community

(6) Environmental Remediation Cost

These contingent costs are allocated for recovery of the environmental degradation due to business activities. [Explanation 22]

- 1) Cost to restore the natural environment back to its original state
- 2) Cost to cover degradation suits connected with environmental conservation
- 3) Provisions or insurance fees to cover degradation to the environment

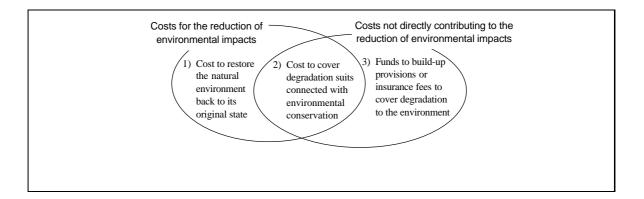
[Explanation 22] Characteristic of Environmental Remediation Cost

Costs to restore the natural environment back to its original state are those expenses incurred for the removal of environmental impacts.

Provisions or insurance fees are expenses evenly spread out a company's financial burden for dealing with environmental degradation after-the-fact, or as a means of hedging against such risks. These costs do not directly contribute to the mitigation of environmental impact.

Costs for degradation suits represent those expenses incurred after some type of damage has occurred and do not directly contribute to the mitigation of environmental impact.

It is best for the company not to incur any environmental remediation costs. They can be reduced through the proper implementation of environmental conservation activities.



(7) Other Cost

These are costs that do not fall under the category of costs enumerated thus far.

In the event that costs related to other environmental conservation activities are disclosed, the content, boundary and basis for cost categories must be clearly defined.

3.1.3 Methods for aggregating Environmental Conservation Cost

Environmental costs are classified as those directly associated with the environment or those with fall into a gray zone, partly environmental and partly not.

Those investments and costs falling into this gray zone will be referred to as "complex" costs herein.

- (1) Costs classified as direct costs are aggregated as environmental conservation costs
- (2) In the case of complex costs, aggregation is conducted basis on the following priorities

a. Aggregating the Difference

Costs other than environmental conservation costs are excluded.

b. Rational Cost Allocation [Explanation 23]

When the environmental conservation cost cannot be identified, the cost is allocated proportionally depending on the intended use.

c. Allocation Based on Easy Rules [Explanation 24]

When the difference is not clear-cut or the cost cannot be rationally allocated, easy rules are applied to derive a percentage of the expense to be allocated as an environmental conservation cost.

[Explanation 23] Standards for Rational Cost Allocation

(1) Personnel Cost

Consideration is given to actual job description and its association with environmental conservation activities. For example, for personnel in charge of two different job assignments a ratio of total labor hours over a specified period is allocated as an environmental cost.

(2) Depreciation

The ratio of purchase value of a specific function or part of facilities that contributes to environmental conservation to the purchase value of the overall facilities or the ratio of the area taken up proportional to scale of the entire plant.

[Explanation 24] Cost Allocation Based on Easy Rules

- (1) When the major portion of a complex cost is recognized as an environmental cost.

 The total amount is classified as an environmental cost.
- (2) When the cost clearly represents a minor portion of total environmental cost These costs are calculated as zero.
- (3) When environmental conservation costs account for a sufficient portion of a particular cost

For example, a set percentage such as 10% or 50% can be used to define the portion of the expense that is an environmental conservation cost. In this event the basis and standards for establishing such ratios must be listed as a key element.

3.2 Environmental Conservation Benefit

Environmental conservation benefit is measured in physical units and is the benefit obtained from the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of a disaster, and other activities.

By assessing the economic value of environmental conservation benefits which are measured in physical units, results are described in monetary values by some cases. Currently, in the field of environmental economics, a number of valuation methods are being developed for the purpose of determining the environment's economic value. However, there is no established valuation method suitable for environmental accounting. It has been pointed out that there are a wide variety of potential uses for integrating various environmental impacts into a single indicator as monetary value by valuating the economic benefits of environmental conservation activities. The advances in the development of such a method are expected.

3.2.1 Categories of Environmental Conservation Benefit

Categories of environmental conservation benefits should correlate with the classification of environmental conservation cost in order to identify the expense incurred to the benefit received. However, in certain cases it is difficult to ascertain which environmental cost categories apply to the environmental conservation benefits received, therefore a company may only disclose the portion for which there is a clear relation or simply apply the amount of all environmental conservation benefits related to entire costs.

In addition, environmental conservation benefits are broken down into the following four categories in relation to business operations.

- Environmental conservation benefit associated with the inputs of resources into business operations
- Environmental conservation benefit associated with environmental impact and waste emissions from business operations
- Environmental conservation benefit associated with the goods and services produced by business operations
- Environmental conservation benefit associated with transports and other operations

3.2.2 Expressing Environmental Conservation Benefit

The following table shows environmental conservation benefit indicators, which incorporate the environmental performance indicators presented by the Ministry of the Environment, as categorized in relation to business activities.

A company or other organization can select effective indicators from within this table to identify and valuate environmental conservation benefits. In the event that proprietary indicators are used, the basis for calculations should be clearly described.

Indicators represent both decreasing and increasing values, and are expressed in volume or ratios.

- Indicators expressed in volume calculate the difference of the total volume of environmental impacts between the base and the current periods. It is also possible to note the differences in a comparison of units per volume.
- Indicators expressed in ratios calculate the difference between the base and current periods. The percentage values for both the base and current periods are also to be noted. [Explanation 25] [Explanation 26]

[Explanation 25] Base Period

The base period in principle is the fiscal year which falls previous to the current year. However, for specific environmental performance indicators other years may be designated as the base period. In this case, the difference can also be noted between the base and current periods.

[Explanation 26] Unit per Volume and Volume of Business Activity

The unit per volume represents the environmental impact (physical units) per volume of business activity. The volume of business activity can be represented in terms of the input volume of resources into the business or the output volume of environmental pollutants emitted.

The volume of business activity can be expressed in terms of sales, the value or volume of goods sold, and production values and volume. The environmental impact indicator is selected depending on the content of the goods and services sold or the unit used in calculation.

Table Indicators for Environmental Conservation Benefit (Classifications in relation with Business Activities)

	Indicators for decreasing values	Indicators for increasing values
Environmental	[Energy usage]	
conservation	 Decrease in energy consumption 	Increase in ratio of renewable energy,
benefit associated	[w/]	compared to total energy consumption
with the inputs of	[Water usage]	
resources into	• Decrease in water usage	
business operations	[Input of various resources]Decrease in various resources used	Towns and a section of accounts to account
[Explanation 27]	Decrease in various resources used	Increase in ratio of recycled resources, compared to total resource input
[Explanation 27]	[Other]	compared to total resource input
Environmental	[Emissions to the air]	
conservation	 Decrease in the emission of 	
benefit associated	environmental pollutants	
with	 Decrease in noise and vibrations 	
environmental	 Decrease in noise and violations Decrease in odors 	
impact and waste	[Emissions to water bodies and ground]	
emissions from	 Decrease in wastewater 	
business	Decrease in emission of environmental	
operations	pollutants	
[Explanation 28]	[Waste emissions]	
[Explanation 29]	Decrease in total waste emissions	Increase in ratio of recyclable waste
	 Decrease in emission of hazardous waste 	,
	Decrease in environmental pollutants	
	contained in waste	
	[Other]	
Environmental	Decrease in environmental impact during	Increase in ratio of recyclable used
conservation	usage	products, containers and packaging
benefit associated	 Decrease in environmental impact at 	
with the goods	time of disposal	
and services		
produced by		
business		
operations		
[Explanation 29]		
[Explanation 30]	• 5	
Environmental	Decrease in transports	
conservation	Decrease in environmental impact caused but was a part.	
benefit associated	by transports	
with transports		
and other		
operations [Explanation 29]		
[Explanation 29]		
[Explanation 51]		

[Explanation 27] Indicators for Environmental Conservation Benefit Association with the Input of Resources into Business Operations

(1) Decrease in energy consumption

The volume of energy consumption is calculated using a standard unit to measure the total consumption of electric power and other types of fuel.

(2) Increase in ratio of renewable energy, compared to total energy consumption

The following formula is used to calculate the ratio of renewable energy.

Ratio of renewable energy

= total volume of renewable energy / total energy consumption

Various types of renewable energy include the generation of electricity or the supply of heat from sources such as solar light, solar heat, wind power, biomass, geothermal heat, and water power.

(3) Decrease in water usage

The volume of water usage does not include water that is recycled at the business site for reuse.

(4) Decrease in various resources used

The types of resources input into business activities differ depending on the industry or type of business. Companies select resources based on the type of business operations.

Among the resources used, certain substances can be potentially hazardous if released into the environment. A decrease in the use of such substances is calculated for preventive measures.

(5) Increase in ratio of recycled resources, compared to total resource input formula

The following is used to identify the ratio of recycled resources out of the total resources input into operations.

Ratio of recycled resources = amount of recycled resources input / total amount of resources input

[Explanation 28] Indicators for Environmental Conservation Benefit Associated with Environmental Impact and Waste Emissions from Business Operations

(1) Decrease in emissions of environmental pollutants

The types of environmental pollutants differ depending on the industry or type of business. Companies select the type of environmental pollutants depending on the type of business operations.

(2) Decrease in noise, vibrations and odors

This indicator is used at individual business sites. It is not suitable for application in measuring companywide reductions.

(3) Decrease in wastewater

The following formula is used to calculate the volume of wastewater.

Wastewater volume = water discharged into public waterways + wastewater released into the sewage system

(4) Decrease in total waste emissions

The following formula is used to calculate total waste emissions.

Total waste emissions

= amount of waste emissions or transport of waste outside the premises of the company's business site + amount of waste disposed in landfill at the business site

The definition for waste is stipulated under the Basic Law for Establishing a Recycling-based Society.

(5) Increase in ratio of recyclable waste

The ratio of recyclable waste is calculated using the following formula.

Ratio of recyclable waste

= amount of total waste emissions that was recycled / total waste emissions

Waste recycled refers to waste that was reused or recycled and heat recovery. It is possible to produce a cumulative total for reuse and recycling but heat recovery is calculated separately.

(6) Decrease in emissions of hazardous waste

Hazardous wastes are those deemed as specially managed municipal waste and specially managed industrial waste as described in the Waste Disposal and Public Cleaning Law.

(7) Decrease in environmental pollutants contained in waste

The types of environmental pollutants differ based on industry or type of business. Companies select the type of environmental pollutants depending on the type of business operations.

[Explanation 29] Environmental Pollutants

Environmental pollutants are those substances regulated by various laws and standards and for which companies are legally required to submit documentation (such as PRTR-designated substances).

[Explanation 30] Indicators for Environmental Conservation Benefit Associated with the Goods and Services Produced by Business Operations

(1) Decrease in environmental impact during usage, decrease in environmental impact at time of disposal

Environmental impacts during product's usage or at the time of its disposal include energy consumption, the emission of environmental pollutants, and the generation of waste at the time of disposal.

To calculate this benefit, various premises are taken into consideration related to the conditions of use of a product or service. Therefore, calculation methods should be clearly stated when this information is disclosed.

(2) Increase in ratio of recyclable used products, containers and packaging

This covers reuse, recycling and heat recovery.

It is possible to produce a cumulative total for reuse and recycling but heat recovery is calculated separately.

[Explanation 31] Indicators for Environmental Conservation Benefit Associated with Transports and Other Operations

(1) Decrease in transports

The volume of transports is the volume of goods transported by the company itself and the volume of transport it consigns.

(2) Decrease in environmental impact caused by transports

Environmental impact caused by transports includes the emission of environmental pollutants and the energy consumption.

3.2.3 Method for Measuring Environmental Conservation Benefit

Environmental conservation benefit is measured by comparing the difference between the amount of environmental impact during the base period and the environmental impact in the current period.

Of the following formulas, clearly state which method is being employed.

To express indicators in terms of physical units, Method 1 or Method 2 can be utilized. For indicators in ratio, Method 1 should be applied.

Method 1 Simple comparison with the base period
 Measure the difference in environmental impact volume between the base and current periods.
 [Explanation 32] [Explanation 34]

Environmental conservation benefit

= environmental impact volume in the base period – environmental impact volume in the current period

[Explanation 32] Characteristics of Method for Simple Comparison with the Base Period

Aside from showing the benefits of a company's environmental conservation activities, the results derived could influence fluctuations in the volume of business activity conducted. Therefore, this does not strictly relate to environmental conservation cost. However, the results give a broad picture of the overall changes in a company's environmental impact.

• Method 2 Comparison after adjusting the volume of business activity in the base period.

The amount of environmental impact volume for the base period is adjusted to reflect the fluctuation in the volume of business activity conducted in the base and current periods. The adjusted figure is used to make comparisons with the current period.

[Explanation 33] [Explanation 34]

Environmental Conservation Benefit

= environmental impact volume in the base period X (volume of business activity in the current period / volume of business activity in the base period) – environmental impact volume in the current period

[Explanation 33] Characteristics of Method for Comparison after Adjusting the Volume of Business Activity in the Base Period

Results derived do not influence changes in the volume of business activity, therefore it basically is related to environmental conservation cost. However, even if environmental impact increases due to enhanced volume of business activity, an environmental conservation benefit will be derived in case of decrease in the units per volume during the current period. For this reason, it is necessary to valuate the benefits along with the overall changes in the company's environmental impact.

[Explanation 34] Benefit from Keep and Control Cost for Constant Level Environmental Impact

Similar to costs used for complying with laws and regulations, for keep and control cost for constant level environmental impact, it is perceived to be difficult to recognize environmental conservation benefit using Methods 1 or 2. For such case, the company should state that it has achieved regulatory targets and standards.

In addition to Methods 1 and 2 listed above, other methods can be employed depending on the status of company's environmental conservation activities. [Explanation 35]

[Explanation 35] Measuring Methods Related to Environmental Conservation Activities

There is a method to calculate the benefits of more in-depth activities, beyond the legal and regulatory compliance, whereby the difference between regulatory targets and standards, and environmental impact for the current period is regarded as environmental conservation benefit.

3.3 Economic Benefit Associated with Environmental Conservation Activities

The economic benefit associated with environmental conservation activities is contribution to the profit resultant of environmental conservation activities a company or other organization carries out, as measured in monetary value.

3.3.1 Economic Benefits Associated with Environmental Conservation Activities

The economic benefit associated with environmental conservation activities are divided into actual benefits and estimated benefits depending on whether the data is confirmed. Actual benefits are the economic benefit calculated based on confirmed data. Estimated benefits are those economic benefits calculated based on a certain premise.

(1) Actual Benefit

a. Revenue

The results from environmental conservation activities which are actually shown on the company's financial statements as revenue for the current period.

These revenues include the income derived from the recycling of used products or waste generated by key business operations.

b. Expense Saving

These are avoidance of expenses by conducting environmental conservation activities in comparison with the previous year based on solid confirmation.

(a) Expense Saving through Lower Resource Input into Business Activities

Expense savings of resources input can be achieved through the reduction of raw material costs by recycling resources or more effective usage or reduction of energy costs by energy conservation, and reduction of water bills by using recycling water. [Explanation 36]

[Explanation 36] Expense Savings through Lower Resource Input

When environmental resources are input into business activities, various costs related to the usage of raw materials, energy and water are incurred. The consumption of resources in itself causes environmental impact. By reducing the input of resources through environmental conservation activities, a company not only reduces its environmental impact but also reduces costs related to the use of raw materials, energy, and water.

(b) Expense Savings Resulting from a Decrease in Environmental Impact and Lower Waste Emissions

Of the expenses incurred due to environmental impact and waste emissions, expense savings can be achieved by lowering statutory expenses through a reduction in the emission of regulated environmental pollutants, trimming wastewater treatment expenses by recycling water, and decreasing waste disposal expenses through resource conservation and recycling.

(c) Expense Saving for Environmental Remediation

These are the amount which a company can reduce its conventional expenses for environmental remediation, such as funds to build-up provisions and insurance premium payments in the current period.

(2) Estimated Benefit

Estimated benefit is key data for management, and is likely to be employed mainly for internal use. Since estimated benefit has lower probability than actual benefit or a certain uncertainty and contains elements of assumption, their calculation must be carried out with caution.

3.3.2 Method for Measuring Economic Benefit Associated with Environmental Conservation Activities

There is no established method to measure estimated benefit when measuring the economic benefit associated with environmental conservation activities. These guidelines only propose a method for the actual benefit.

For revenue, the results of environmental conservation activities are posted as revenue to the financial statements for the current period.

In the case of expense saving, a difference between expenses in the base and current periods is regarded as economic benefits according to the measuring of environmental conservation benefits.

It should be clearly stated which of the following two methods is employed.

Method 1 Simple comparison with the base period
 Measure the difference between expenses incurred in the base period and those posted in the current period.

Economic benefit associated with environmental conservation activities

- = expense incurred in the base period expense incurred in the current period
- Method 2 Comparison after adjusting the volume of business activity in the base period Adjust the expense incurred in the base period depending on the fluctuation in volume of business activity between the base and current periods. The adjusted value is then used to measure the difference in expense incurred in the current periods.

Economic benefit associated with environmental conservation activities

= expense incurred in the base period X (volume of business activity in the current period / volume of business activity in the base period) – expense incurred in the current period

4. Disclosure of Environmental Accounting Information

We recommend the active disclosure of environmental accounting information via an environmental report in regard to the external functions of environmental accounting.

4.1 Elements of Disclosure for Environmental Accounting

The following environmental accounting elements should be disclosed.

- Significant environmental accounting policies
- Total information of environmental accounting
- Description of the results
- Correlation with other elements in the environmental report

(1) Significant Environmental Accounting Policies

a. Status

- 1) Target period [Explanation 37]
- 2) Aggregation calculations [Explanation 38]
 - In the case of a corporate group, name and number of affiliates
 - In the case of business sites, the name of the business site, criteria for selection, and the name and reason for exclusion of remaining key business sites

[Explanation 37] Specifying the Target Period

If the target period differs from the business year, the reason should be stated.

In addition, a company within a corporate group records its environmental accounting activities for a differ period of time, then the name of the company and the target period must be stated.

[Explanation 38] Specifying the Aggregation Scope

If the scope of the corporate group and the scope of its consolidated financial statements differ, the criteria for defining the corporate group should be stated.

b. Aggregation Criteria for Environmental Conservation Cost

- 1) Aggregation depreciation [Explanation 39]
 - If depreciation of capital investments is included in cost
 - Span of useful life and the basis for this
- 2) Criteria for posting complex cost [Explanation 40]
 - Criteria for proportional allocation of environmental conservation cost by general business cost and the basis for this aggregation.

[Explanation 39] Specifying the Depreciation Cost

In the event that depreciation of capital investments is included in cost, both the investment and cost should be posted as an environmental conservation cost.

[Explanation 40] Specifying Criteria for Posting Complex Cost

If various methods of calculation are employed depending on the type of cost, each method and the main costs involved should be stated.

c. Measuring Criteria Environmental Conservation Benefit

- 1) Scope of the benefit [Explanation 41]
- 2) Period in which the benefits of the investment appear, and the basis of this period
- 3) Basis for units of measurement

[Explanation 41] Specifying the Scope of Benefit

It should be stated whether the scope of benefit covers the decrease in environmental impact during the use of a product or service derived from business activities, or the decrease of impact during waste disposal. The method of calculation and the basis for the calculation should be also stated.

d. Measuring Criteria for Economic Benefit Associated with Environmental Conservation Activities

- 1) Scope of benefit [Explanation 42]
- 2) Period in which the benefits of the investment appear, and the basis of this measuring

[Explanation 42] Specifying the Scope of Benefit

It should be stated whether the scope of benefit only applies to actual benefit or if it also includes estimated benefit.

e. Revision to Significant Environmental Accounting Policies

If a change is made to the significant environmental accounting policies, the status, reason and impact of the change should be stated (explained quantitatively as best as possible).

(2) Total Information of Environmental Accounting

State the environmental accounting total information that include: [Explanation 43]

- 1) The content of environmental conservation cost and environmental conservation activities
- 2) Environmental conservation benefits
- 3) Economic benefit associated with environmental conservation activities

[Explanation 43] Stating the Results of Environmental Accounting

To promote understanding among stakeholders, it is effective to state both environmental conservation targets and the progress being made with environmental conservation activities.

In addition, to promote understanding of past environmental conservation activities, it is effective to disclose information covering three to five fiscal years.

(3) Description of the Results of Environmental Accounting

A company states the self-assessment on actual results and fluctuations with results from the previous fiscal period, and future direction to apply the environmental accounting for environmental conservation activities. [Explanation 44]

[Explanation 44] Stating the Description of the Results of Environmental Accounting

For better understanding among stakeholders, a company should assess its own analysis from the following perspectives.

(1) Description of relationship to corporate business circumstance

In the event of a major change in a company's business circumstance, such as due to merger, spinoffs, opening/closure of a plant, fluctuation in earnings, or the large-scale consignment of operations, the company should explain both the status for the change and the impact this has on current and future environmental accounting performance.

(2) Description of relationship to environmental impacts and environmental conservation activities

If abnormally large amounts or notable changes are observed in its environmental impacts (including sudden occurrences during the current period such as environmental degradation), the reasons should be described.

One example is when R&D costs stand out among environmental conservation costs, or if there is a significant decrease in CO₂ emissions among its environmental conservation benefits.

(3) Description of relationship to past environmental conservation activities

As a company carries on with environmental conservation activities, the benefit from additional spending for environmental conservation tends to produce less benefit per amount. A company that has made vast progress in environmental conservation activities, are likely to find it more difficult to generate benefit.

In this situation, environmental accounting results achieved in the current period should be described to tie in with past environmental conservation activities.

(4) Correlation with Other Environmental Report Elements

To promote further understanding of environmental accounting, the page of correlating topics found in the environmental report should be stated.

In addition, if guidelines other than these guidelines were used, it should be specified.

4.2 Formats for Disclosing Environmental Accounting Information

To promote uniform understanding by the society at large, these guidelines contain standard formats recommended for use.

There are three examples of formats here depending on policies for gathering environmental accounting information or activities.

A company can select a separate format that best suits the disclosure of individual information. In this case, the company should state the details of its disclosure method, the reason and the correlation with the disclosure format.

(1) Disclosure Format A: Focusing on Environmental Conservation Cost

The format can be used when environmental conservation costs are the main focus. The status of environmental conservation activities is made clear through environmental conservation cost. Results of benefits are stated as qualitative summary.

(2) Disclosure Format B: Comparison of Environmental Conservation Benefit

This format is used to compare environmental conservation cost and environmental conservation benefit. By using quantitative information to express benefit, a company's cost performance to benefit for environmental conservation activities becomes clear.

(3) Disclosure Format C: Comparison of Overall Benefit

This is intended for comparison of the environmental conservation benefit and economic benefit associated with environmental conservation activities against environmental conservation cost. This gives a comprehensive and clear picture of a company's cost performance to benefit for environmental conservation activities.

Format Focusing on Environmental Conservation Cost (Disclosure Format A-1)

Scope: ()
Target Period:	
Unit: ¥ ()

Environmental Conservation Cost					
Category Key Activity and the Outcome Investment Cost					
1) Business Area Cost					
(1)-1 Pollution Prevention Cost					
(1)-1 Pollution Prevention Cost (1)-2 Global Environmental Conservation Cost (1)-3 Resource Circulation Cost					
(1)-3 Resource Circulation Cost					
2) Upstream/Downstream Cost					
3) Administration Cost					
4) R&D Cost		İ			
5) Social Activity Cost					
6) Environmental Remediation Cost					

Costs that do not fit into categories (1) - (6) above but are related to environmental conservation, should be entered into (7) Other Cost. In this case, status and reasons should be disclosed to specify the scope of such costs.

Item	Content	Yen Value
Total investment in current period		
Total R&D cost in current period		
Gain on sale of valuables related to (1)-3		
Gain on sale of valuables related to (2)		

Scope: ()
Target Period:
Unit: ¥ ()

			Environmental Conservation		
			Category		
(1)	Business Area	(1)-1 Pollution Prevention Cost	Cost for preventing air pollution (including acid rain)		
	Cost		2) Cost for preventing water pollution		
			3) Cost for preventing ground contamination		
			4) Cost for preventing noise pollution		
			5) Cost for preventing vibration pollution		
			6) Cost for preventing odor pollution		
			7) Cost for preventing ground sinkage		
			8) Cost for preventing other types of pollution		
			Subtotal		
		(1)-2 Global Environmental	Cost for preventing global warming and energy conservation		
		Conservation Cost	2) Cost for preventing the ozone depletion		
			3) Cost for other global environmental conservation activities		
			Subtotal		
		(1)-3 Resource Circulation Cost	Cost for the efficient utilization of resources		
		(1) 0 110000100 0110011011011011001	Cost for recycling industrial waste		
			3) Cost for recycling municipal waste		
			Cost for disposal of industrial waste		
			5) Cost for disposal of municipal waste		
			6) Cost contributing to resource circulation		
			Subtotal		
		Total	Outroidi		
(2)	Upstream/		ally purchased materials/conjugs and cost of those materials/conjugs procured through groon purchasing		
(2)	Downstream Cost	1) The difference between the cost of conventionally purchased materials/services and cost of those materials/services procured through green purchasing			
		Additional cost for supplying environmentally conscious products Additional cost for reducing the environmental impact of containers and packaging			
		· · · · · · · · · · · · · · · · · · ·	ing, resale and proper disposal of used products		
		5) Other upstream and downstre			
		Subtotal	Edill COSIS		
(2)	A decisionation		f an anuiranmental management system		
(3)	Administration Cost		of an environmental management system		
	Cosi	Cost for monitoring environments Cost for monitoring environments	ental information and environmental advertising		
		4) Cost for training employees o			
			s, including nature conservation, planting of greenery, beautification, and landscape preservation, at or in the vicinity of the business site		
(4)	D0D 04	Subtotal	that and the state of the second and a second as		
(4)	R&D Cost		s that contribute to environmental conservation		
			ental impact at the product manufacturing stage		
			e curtailment of environmental impact at the distribution stage or the marketing stage of products		
/ 5\	Oi-I Atiit Ot	Subtotal			
(5)	Social Activity Cost		vement activities, including nature conservation, planting of greenery, beautification and the exception of the business site or surrounding vicinity		
		' '	nancial support of environmental groups		
			social activities, such as the financial support of a local community's environmental		
		*	e disclosure of information to the local community		
		Subtotal	,		
(6)	Environmental		vironment back to its original state		
(-)	Remediation Cost	,	onnected with environmental conservation		
	. tomoulandir occi		to cover damage to the environment		

Costs that do not fit into categories (1) - (6) above but are related to environmental conservation, should be entered into (7) Other Cost. In this case, status and reasons should be disclosed to specify the scope of such costs.

Item	Content
Total investment in current period	
Total R&D cost in current period	
Gain on sale of valuables related to (1)-3	
Gain on sale of valuables related to (2)	

(Disclosure Format A-2)

Cost			
Key Activity and the Outcome	Investment	Cost	
	Yen Value		
	i dil van		

				D
Format Comp	arınd Enviroi	nmentai Con	servation	Benetit

(Disclosure Format B)

Scope: ()
Target Period:	
Unit: ¥ ()

	Environmental Conservation Cost				
	Category	Key Activity	Investment	Cost	
(1)	Business Area Cost				
۲.	(1)-1 Pollution Prevention Cost				
Breakdown	(1)-2 Global Environmental Conservation Cost				
Bre	(1)-3 Resource Circulation Cost				
(2)	Upstream/Downstream Cost				
(3)	Administration Cost				
(4)	R&D Cost				
(5)	Social Activity Cost				
(6)	Environmental Remediation Cost				

Costs that do not fit into categories (1) - (6) above but are related to environmental conservation, should be entered into (7) Other Cost. In this case, status and reasons should be disclosed to specify the scope of such costs.

Item	Content	Yen Value
Total investment in current period		
Total R&D cost in current period		
Gain on sale of valuables related to (1)-3		
Gain on sale of valuables related to (2)		

	Environmental Conservation Benefit			
		Indicator		
	Detail of Benefit ¹		Category	Values*2
		Benefit associated with the inputs of resources into	Energy usage	
			Water usage	
			Input of various resources	
		business operations		
	Benefit corresponding to business are cost	Benefit associated with environmental impact and waste emissions from business operations	Emissions to the air	
(1)			Emissions to water bodies and ground	
			Waste emissions	
		Others		
	Benefit corresponding to upstream/ downstream cost	Benefit associated		
		with the goods and services produced by		
(2)		business operations ³		
İ		Others		
(3)	Other environmental conservation benefit	4) Benefit associated		
		with transports and other operations		
ľ		Others		

^{*1} In the event it is difficult to relate environmental conservation benefit to the cost, environmental conservation benefits should not be classified as shown in the above table Nos. (1) - (3).

^{*2} For an indicator in terms of physical volume, the total difference between the environmental impact during the base and current periods should be stated. It is also possible to state a comparison of units per volume.

^{*3} To calculate the environmental conservation benefit during the use of goods or services derived from business activities and at the time of disposal, the benefits should be made clear from other benefits.

Format Comparing Comprehensive Benefit

Scope: ()
Target Period:
Unit: ¥ ()

	Environmental Cor	nservation Cost		
	Category	Key Activity	Investment	Cost
(1)	Business Area Cost			
Breakdown	(1)-1 Pollution Prevention Cost			
	(1)-2 Global Environmental Conservation Cost			
Bre	(1)-3 Resource Circulation Cost			
(2)	Upstream/Downstream Cost			
(3)	Administration Cost			
(4)	R&D Cost			
(5)	Social Activity Cost			
(6)	Environmental Remediation Cost			

Costs that do not fit into categories (1) - (6) above but are related to environmental conservation, should be entered into (7) Other Cost. In this case, status and reasons should be disclosed to specify the scope of such costs.

Item	Content	Yen Value
Total investment in current period		
Total R&D cost in current period		

(Disclosure Format C)

		Environmental Cor	servation Benefit	
Detail of Benefit ¹		Indicator		
		Category	Values*2	
		Benefit associated with the inputs of resources into	Energy usage	
			Water usage	
			Input of various resources	
		business operations		
	Benefit	Benefit associated with environmental impact and waste emissions from business operations	Emissions to the air	
(1)	corresponding to		Emissions to water bodies	
	business area cost		and ground	
			Waste emissions	
		Others		
	Benefit corresponding to upstream/ downstream cost	Benefit associated		
		with the goods and		
(2)		services produced by business operations *3		
		Others		
(3)	Other environmental conservation benefit	4) Benefit associated		
		with transports and other operations		
		Others		

^{*1} In the event it is difficult to relate environmental conservation benefit to the cost, environmental conservation benefits should not be classified as shown in the above table Nos. (1) - (3).

^{*3} To calculate the environmental conservation benefit during the use of goods or services derived from business activities and at the time of disposal, the benefits should be made clear from other benefits.

Econ	Economic Benefit Associated with Environmental Conservation Activities - Actual Benefit -				
	Benefit	Yen Value			
Revenue	Operating revenue by the recycling of waste generated by key business operations or the recycling of used product				
Expense Saving	Energy conservation reduces energy expense Resource conservation and recycling reduces waste disposal expense				

^{*2} For an indicator in terms of physical volume, the total difference between the environmental impact during the base period and the current period should be stated. It is also possible to state a comparison of units per volume.