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Demonstrate and
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for Environmental
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Introduction to Environmental Performance Indicators (EPIs)



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Indicators

Indicators are measurable aspects of organization, which provide summarized information on how the organization is performing. For example, to assess a financial performance the indicators such as company turnover, profit, and amount of products sold might be used.

Indicators can also be used to measure environmental impacts. Environmental performance indicators (EPIs) may help to identify the most significant environmental impacts, clarify and communicate companies' environmental goals and progress to employees and stakeholders.

Indicators can be divided into two broad types:

1. Indicators relevant to all organizations – these include basic measurements for greenhouse gas emissions, waste and water use.
2. Indicators that apply to certain organizations – these cover indicators that are relevant to some organizations but are not relevant to others. [1]

The main criteria used in selecting the appropriate indicators are environmental relevance, international comparability, and applicability of the information provided by the indicator. The environmental indicators should:

- provide a representative picture of environmental conditions and pressures on the environment;
- be simple and easy to interpret;
- based on international standards and provide a basis for international comparison;
- adequately documented and of known quality;
- updated at regular intervals in accordance to reliable procedures. [2]

The readers of the environmental report should get a clear and meaningful picture of the organization's environmental performance. To do this will involve a range of data types, including:

Absolute data - information on performance is usually collected in terms of absolute units of measurement (e.g. tonnes, cubic metres, gigajoules, etc) over a given period of time, usually per annum.

Trend data - data per annum presented over a number of years (e.g. total waste to landfill for each year from 1997-2000) helps show performance trends.

Normalized data - makes relationships between figures visible, by relating two absolute figures to each other. Examples would include cubic metres of water used per employee, kilometres travelled per litre of fuel, the proportion of recycled waste to total waste, and total CO₂ emissions per unit of output. [1]







A number of current initiatives recommend sets of broadly similar but not identical environmental indicators. This includes guidance from the Global Reporting Initiative (GRI) [3], the World Business Council for Sustainable Development (WBCSD) [4], CSR Europe [5], etc. Some may be more appropriate for relatively experienced reporters – others are more basic. However, all guidelines may be used for environmental reporting.

Indicators relevant to all organizations

All reporting organizations would normally be expected to use and report the following indicators [1]:

- greenhouse gas emissions (total tonnes of carbon dioxide equivalent);
- water consumption (total tonnes of water consumed);
- waste output (tonnes of waste sent to disposal from company sites).

Indicators relevant to certain organizations [1, 2, 3]

Environmental impact	Indicator	Comment
Airborne Emissions (other than greenhouse gases) 	1. Total tonnes of ozone depleting gases, SO ₂ , NO ₂ , particulates	These indicators are only relevant when such gases are being emitted.
Resource use and raw materials 	1. Total tonnes of raw materials used	Normalized data that relate tonnes of raw materials input to tonnes or units of output are normally used.
Transport 	1. Total fuel consumed 2. CO ₂ emissions per 1000 km traveled 3. Vehicle fill per cent, and empty running per cent 4. Employee kilometers covered on business travel (road/air/rail) 5. Proportion of employees travelling alone by car when commuting	For some companies, employee commuting may be a cause of significant environmental impact.
Energy 	1. CO ₂ emissions by energy type or major use 2. Consumption by type	You may also want to supplement the information on total CO ₂ emissions from energy use by breaking it down by types or uses.
Water Pollutants 	1. Total discharge of effluent m ³ 2. m ³ effluent per tonne of product	This may include chemical oxygen demanding emissions (COD), biochemical oxygen demanding emissions (BOD), particulates or other materials .
Hazardous Waste 	1. Total tonnes of hazardous waste generated by type	If your organization produces specific waste substances you may want to quantify these separately.

References

- [1] Environmental Reporting. General Guidelines. 2001. <http://www.dera.gov.uk/>
- [2] OECD Report “Core Set of Indicators for Environmental Performance Reviews”. Paris. 1993.
- [3] Global Reporting Initiative (GRI). <http://www.globalreporting.org/>
- [4] The World Business Council for Sustainable Development. <http://www.wbcsd.ch/>
- [5] CSR Europe. <http://www.csreurope.org/>