

Sustainability Accounting

What is Sustainability Accounting?

According to common definitions, there are three key dimensions of sustainability: the economic, the social and the environmental. As a result sustainable development can be measured in terms of these three dimensions:

- The economic impact might be the effect on local employment and livelihoods by the organisations operations
- The social impact might include staff terms and conditions or projects in the community
- The environmental impact might include the quality of waste water discharged or greenhouse gas emissions from operations

Accounting for the financial aspects of an organisation's performance is a statutory requirement. Accounting for sustainability is currently a voluntary activity. However, companies are increasingly reporting aspects of their social and environmental performance.

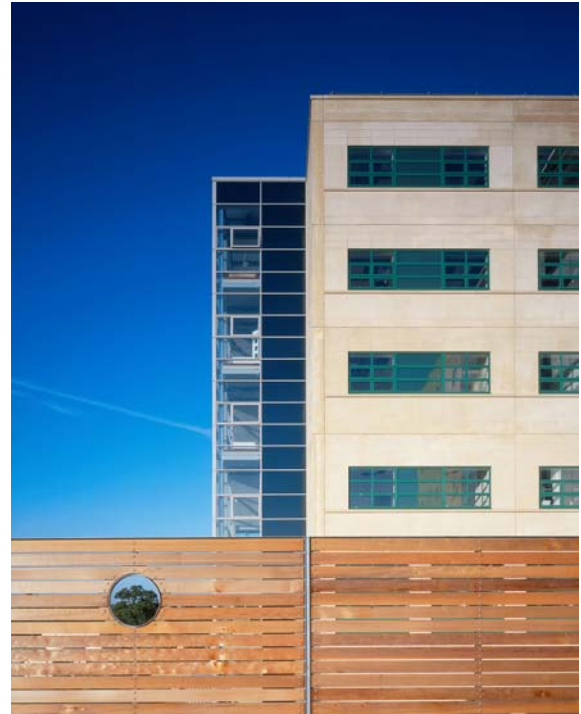
Why is Sustainability Accounting Important?

Sustainability accounting provides a useful tool to identify, evaluate and manage social and environmental risks by identifying resource efficiency and cost savings and link improvements in social and environmental issues with financial opportunities. It also allows comparison and benchmarking of performance and identification of best practice.

What are the benefits?

Organisations committed to sustainability look beyond immediate profits to returns and value, which can be achieved over many years and in ways that have consideration of environmental and social issues. In the case study described later, over £1.5 million was identified in direct and indirect costings. The sustainability accounts can be used to:

- Collect information on environmental and socially related expenditure and link them to financial benefits
- Show how environmental and social external costs can decline over time with commitment to sustainability
- Highlight the social and environmental risks associated with current financial performance and aid risk management
- Identify which stakeholder relationships present sustainability risks and benefits
- Encourage partnership between stakeholder organisations



Why sustainability accounting in the construction sector?

The construction industry is a significant part of any economy. Furthermore, the industry is key to the quality of life – in terms of housing, utilities and transport infrastructure and so therefore has an important opportunity for the industry to positively impact on its employees, the local communities in which it operates and enhance the surrounding environment.

Many organisations are involved in helping the construction industry put the sustainable development principles into practice to move away from the potential detrimental effect that construction can have. The regulator, the Environment Agency stated that in 2000, the industry was responsible for 600 water pollution incidents.

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How to do it

In practice, it is usual to prepare two kinds of sustainability accounts to capture the direct financial impacts (costs and benefits) of sustainability initiatives on the organisation as well as the indirect social and environmental impacts (evaluated in financial terms where possible) of the organisation on third party stakeholders (such as the community and future generations) as shown in Figure 1.

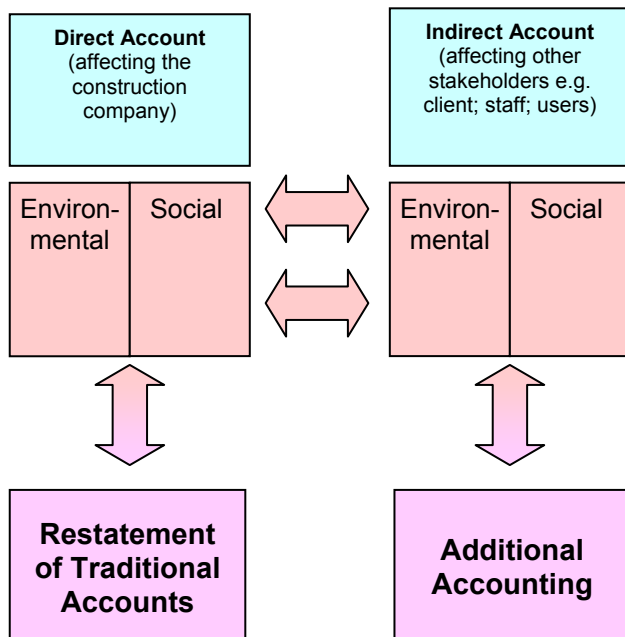


Figure 1 Overview of Sustainability Accounting Framework

- **Direct accounts** draw out sustainability related information that is otherwise hidden in the traditional financial accounts. These provide a re-statement of traditional financial information to show expenditure on social and environmental activities and capture any associated benefits.
- **Indirect accounts** provide the financial expression of selected externalities, both environmental and social. An externality may be defined as a cost (or benefit) which is borne by stakeholders such as the local community or suppliers, rather than the organisation itself. Where possible, financial values are assigned to indirect values. When this is not possible; the indirect impact should be stated in non-financial terms. Indirect impacts accrue to third party stakeholders.

It is usual to produce separate direct accounts for environment and social and the same for indirect accounts as it is not appropriate to compare, merge or offset one cost/benefit against another.

Preparation of the Direct Accounts

There are four steps in the preparation of the **direct environment and social accounts**.

Step 1 Determination of the scope and boundary of the accounts

It is important to specify the scope of the accounts at an early stage. It will also be necessary to determine whether there is a physical boundary to the area that the accounts are to cover, perhaps a time period, stakeholder or spatial boundary.

Step 2 Identify all environmental and social features of the organisation

Environmental and social features are any aspect of the organisation's activities, which will have a beneficial impact. At this stage all environmental and social features should be included even if the main driver was statutory or commercial.

Step 3 Identify additional financial costs

For each feature, identify the additional financial costs which would not otherwise be spent if environmental or social considerations were not being made. This is done using the following classification:

- Staff costs
- Suppliers/contractors
- Regulatory
- Capital costs

Step 4 Identify Additional financial savings/benefits

For each feature identify any actual or projected financial benefits/savings that may be attributed to the environmental or social feature using the following classification:

- Revenue generated
- Cost savings/costs avoided
- Regulatory costs avoided
- Grants/subsidies/awards received

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Preparation of the Indirect Accounts

There are essentially three steps in the preparation of **indirect cost accounts**:

Step 1 Scoping Impacts

Ideally a stakeholder approach should be used to identify all significant environmental and social impacts from the organisation's activities. A full life-cycle approach will scope out upstream and downstream impacts.

Step 2 Determining boundaries

This involves prioritising which impacts to account for and which impacts to consciously exclude. This decision will have an impact on the estimation of sustainable profits. Financial accounting boundaries are governed by statute and focus on issues that affect shareholder value. Sustainability accounts have a broader focus that encompasses significant environmental and social risks that impact on stakeholder value.

Step 3 Monetary Valuation of Impacts

Methods to assign monetary values to environmental impacts have been developed over the past decade and are increasingly accepted both within government and corporate circles. There are several different types of environmental valuation methods that could be used. Forum for the Future has pioneered its environmental accounting framework using avoidance or restoration values. This is the least controversial method as it is based on the actual costs that would be incurred by business in order to prevent or avoid its indirect footprint.

The valuation of indirect social impacts is a less well-developed field. In principle, the same approach to valuation could be applied to social impacts. For example, social costs can be derived from the costs of avoiding or preventing impacts (e.g. health and safety impacts) or the costs of compensating affected parties.

Key Issues to Consider

While sustainability accounting is potentially a very powerful tool for internal management and external reporting, the practical application of the methodology will be an essential part of its evolution. Some key issues which need consideration are:

- **Boundaries of responsibility** – sustainability accounting is a voluntary activity and as such, it is up to the individual organisation to determine their boundaries of responsibility.
- **Valuation method** – the use of avoidance and restoration costs is considered to be the most appropriate method. However, the costs of

prevention or restoration do not give any information about the relative priority that different stakeholders might attach to indirect impacts.

- **Adding up and across** – the conversion of social and environmental impacts into financial values makes it possible to add up the impacts and trade them off against each other. For example this could allow a company to trade off the cleaning up waste water discharges against increased production of carbon dioxide, or netting off a new investment in community provision against increases in unpaid overtime. Even more controversial is a trade off between categories. For example reducing solvent emissions to cover for increasing health and safety risks at a plant. Many of these trade-offs do not make sense from a sustainability point of view.
- **Accounting for what you can count** – there is concern that these accounts will only include items which are easy to convert to financial values, for example, the costs of waste disposal or the costs of fitting new plant to reduce emissions.

Related resources

Further information is available from:

1. Carillion plc (2000), 'We are Making Choices: Carillion's environment, community and social report' 1999-2000. Published in the UK.
2. CIRIA (2001), 'Sustainable Construction: company indicators'. Report No. C563, Published in the UK.
3. DETR (1999), 'A better quality of life: a strategy for sustainable development in the UK'. Published by The Stationery Office). Published in the UK
4. DETR (April 2001), 'Building a better quality of life' a strategy for more sustainable construction'. Published in the UK.
5. Howes, R. (2002) Environmental Cost Accounting: An Introduction and Practical Guide. The Chartered Institute of Management Accountants (CIMA) Publishing, London
6. Casella Stanger, Forum for the Future, Carillion plc (2002) Sustainability Accounting in the Construction Industry. Published by CIRIA, on behalf of Casella Stanger.

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Case study at Great Western Hospital

The Partners in Innovation (PII) project “Sustainability Accounting in the Construction Industry” is a highly innovative project – and is one of the first practical examples of sustainability accounting being applied in the UK. The project focused on developing methodologies for sustainability accounting and piloting them at a construction project to develop the business case for sustainable construction.

The Great Western Hospital (GWH) project at Swindon was selected to provide a detailed case study for the project. It is being built by Carillion Building Special Projects, part of Carillion plc. Carillion became involved with the PII project because it was keen to try and establish the link between environmental, social and financial performance on a construction project.

Environmental and social information was gathered from the GWH project at all stages. A sustainability accounting statement was produced for the project showing that the sustainability initiatives built into the design, construction and maintenance phases of the hospital generated an estimated £1,639,788 in direct savings for Carillion. (This figure should be used for illustrative purposes only. It provides a snapshot illustration of the types of costs and savings that are possible – but does not provide a comprehensive review of all the sustainability features of the Great Western Hospital). The statement uses the CIRIA environmental and social indicators with some additions that evolved from the members of the PII project, to categorise the initiatives.



This Factsheet was prepared as part of a Partners in Innovation Project (Project Number - PII: 39/3/671) funded by the DTI and undertaken by Casella Stanger in partnership with Forum for the Future, Carillion plc and Construction Industry Research and Information Association (CIRIA).

The full report of this project is available to download from the Partners' websites and from www.constructingexcellence.org.uk/pdf/sustainable_business_accounting.pdf Printed and bound copies of the report are also available from CIRIA: enquiries@ciria.org.uk Report ref: X105. Price £40.

LOGOS DTI, Casella Stanger, Forum for the Future, Carillion

Photographs

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