



International
Federation
of Accountants®

Accounting for Sustainability

From Sustainability
to Business Resilience

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Accountants will save the world.

***—Peter Bakker, Chief Executive,
World Business Council for
Sustainable Development***

To deliver on this vision, accountants will need a greater awareness of how they can make a difference, as well as developing the professional skills and competences to support stronger and more sustainable organizations.

To bring this vision closer to reality, this briefing clarifies the important role accountants can, and must, play in embracing sustainability to ensure that the organizations they serve are resilient. It does this by linking sustainability to a broader business agenda of enabling resilient organizations, and highlighting the key elements of developing a sustainable strategy and how professional accountants can help address sustainability opportunities and challenges in their diverse roles.

It also provides information on the many resources and tools available to help accountants develop the knowledge and skillset necessary to meet the challenge.

Laying the Groundwork

Accountants working in organizations are not a homogenous group. On the contrary, the contribution of accountants varies depending on their position as well as organization and cultural context.

Professional accountants working in commerce, industry, financial services, education, and the public and not-for-profit sectors undertake diverse roles in leadership and management (e.g., chief executive officer, chief financial officer, chief operating officer), operations (e.g., management accountant or performance analyst), management control (e.g., risk manager, compliance manager, internal auditor) and in stakeholder communications (e.g., head of reporting, financial controller, investor relations). IFAC refers to these accountants collectively as professional accountants in business.

In all these roles, professional accountants in business are involved in activities and decisions that influence their organization's ability to create and preserve value over time. Delivering continuing value to providers of financial capital and other stakeholders is the key to business resilience and requires longer-term thinking on a broader range of matters.

Professional accountants need to consider how, through their work and positions of influence, they can contribute to business resilience and influence organizations to integrate sustainability matters into organizational strategy, finance, operations, and communications.

Linking Sustainability to Business Resilience

Creating a resilient organization involves understanding and responding to a range of risks that are often referred to under the broad banner of sustainability. The 2014 and 2015 Global Risks Reports, published by the World Economic Forum (WEF), list a number of interconnected challenges faced by businesses. In each of the last two years, four of the 10 most significant risks relate to the intersection between mankind's increasingly complex, and potentially catastrophic, relationships with nature: water and food crises, climate change, and extreme weather events. Other critical risks, such as profound political and social instability and governance failure, also relate to sustainability and business resiliency. The WEF reports highlight that instabilities caused by these risks "may hinder progress on cross-cutting, long-term challenges and lead to increased inefficiencies and friction costs in strategically important sectors, such as healthcare, financial services, and energy. Managing this uncertainty will require flexibility, fresh thinking, and multi-stakeholder communication."

These significant and diverse risks create uncertainty and have to be managed in the context of heightened expectation on the responsibility of organizations to society. Society is increasingly expecting corporations to take responsibility for a broader range of sustainability issues, such as social and environmental aspects that will ultimately affect financial performance and an organization's ability to create value over time. For example, there is greater awareness of how the consumption of vast amounts of natural resources and pollution of the local and global environment at little or no cost can lead to loss of reputational or brand value. This in turn can potentially put a company's license to operate, or even entire industries, at risk.

Why is Sustainability Important to Business Resilience?

The foremost definition of sustainability from the Brundtland Report, used by many governments and organizations, refers to: “Sustainable development is development that meets the needs of current generations without compromising the ability of future generations to meet their own needs.”¹

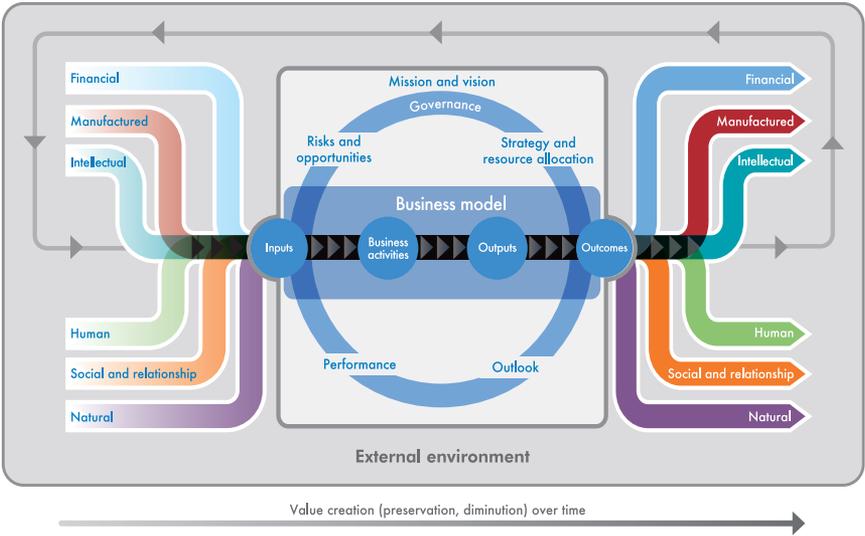
In keeping with this definition, policy makers and, ultimately, organizations need to take into account the wider and longer-term consequences of decisions. The financial sustainability of a business is traditionally the main concern of chief executives and chief financial officers. But sustainability in the sense of the Brundtland definition is about a business making a positive contribution to planet Earth’s ability to sustain human and biological life and the planet’s natural assets.

This broader view also makes business sense and recognizes that, ultimately, organizations are an integral part of society and the economy. Financial performance is not achieved in a vacuum. As captured by the value-creation model in the International Integrated Reporting Framework (see the diagram on the next page), organizations rely on a broad set of inputs, or capitals, such as financial, natural, and human resources. Capitals can be considered as stocks

¹ Report of the Brundtland Commission, “Part I, Section 2: Towards Sustainable Development,” Report of the World Commission on Environment and Development: Our Common Future (Oxford University Press, 1987)

of value that are increased, decreased, or transformed through the activities and outputs of the organization. This thinking also reinforces that businesses are part of a larger interconnected system, and that having an outward looking system-wide perspective will help businesses identify and understand their dependencies and impacts. This understanding can lead to the development of a more resilient business model that is the basis for creating and sustaining value over time.

The labels applied to activities that support sustainability and business resilience include planet, people, profit, and corporate social responsibility. Such terms can apply to a range of investments that might include philanthropy for community benefits to specific investments that enable sustainable business practice and are directly linked to the core business objectives of the organization.



Source: International Integrated Reporting Council

Sustainability issues and challenges relate directly to some of the capitals that cover specific economic, environmental, and social matters. To ensure resilient business models, some organizations are transforming the way they think about products, technologies, processes, and business models.

To accomplish this, organizations need to consider the impact of economic activities—things bought, investments made, and waste and pollution generated—on the natural and human resources on which they depend, in order to avoid irreparable damage to the productive capacity of these resources. In reality, this requires organizations to take into account the consequences of economic decisions on the natural environment, on economic development, and on the social conditions in which people live and work. For a few ambitious organizations, this is leading to business model innovation designed to achieve a circular economy.

→ See [“A Circular Economy Must Drive Management Accounting in the 21st Century”](#) on the IFAC Global Knowledge Gateway.

Being ‘less bad’ is no longer sufficient. This goes beyond corporate social responsibility. It’s about moving from share value to shared values where business sees itself as part of society, not separate from it; where the focus is on the long term, not on quarterly earnings; and where the needs of citizens and communities carry the same weight as those of shareholders.

—Paul Polman, CEO, Unilever, *Huffington Post*, “Why the Role of Business Can No Longer Be Just Business”

Looking Outward

A sustainable strategy can lead to business resilience by enabling an organization to create value for its shareholders while it also contributes to a sustainable society by meeting the needs of this generation without sacrificing future generations. A truly sustainable strategy is one that integrates material sustainability issues, leading to business models that enable net positive economic, environmental, and social impacts. For example, Ikea strives for resource independence by encouraging all waste be turned into resources; energy independence by being a leader in renewable energy; and becoming more energy efficient throughout its operations and supply chain.

Organizations that are proactively changing their business models to respond to sustainability challenges typically have an external and integrated focus that continually looks outside the organization to help gain a deeper understanding of:

- how value can be created over time given the capitals the organization relies upon and affects, and how the business model may need to adapt;
- the nature of opportunities and threats arising from megatrends, such as natural resource depletion and scarcity, climate change, population growth, urbanization, and growing middle class, which can ultimately drive sustainable growth;
- stakeholder perceptions of how the organization's activities affect and are affected by society. Meaningful stakeholder engagement can also help facilitate pooling of resources in a way that helps multiple parties gain insights and knowledge, solve problems, and reach goals and targets that none of them could reach alone; and

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- how changing consumer preferences can inspire the development of new products and services that meet customer demand while also improving efficiency. Consumers are also increasingly expecting organizations to be more accountable, particularly by demanding products and services with a lower impact on the environment and that follow just labor laws and practices globally.

These four perspectives are captured below.



Royal DSM, a global life and materials sciences company, is an example of organization that is incorporating megatrends and integrating sustainability into its strategy and priorities. The process of understanding and responding to key trends has led to a transformation of Royal DSM's strategic focus and business model. In a presentation at The Prince of Wales's Accounting for Sustainability Project (A4S) tenth anniversary

forum in 2014, Rolf-Dieter Schwalb set out the Royal DSM approach in which sustainability is one of its four growth drivers of the corporate strategy (the other three being high-growth economies, innovation, and acquisitions and partnerships).

For most organizations, approaching sustainability and achieving a resilient business model is a journey that involves understanding and responding to complex and interrelated issues. The start of this journey might focus on complying with laws and regulations, which in some cases can require a radical response. For example, the Companies Act (2013) in India requires every company with a net worth or a turnover above a certain threshold during a given financial year to spend at least 2% of the average net profits made during the three preceding financial years on its corporate social responsibility policy (see Corporate Social Responsibility in India from KPMG).

In many cases, organizations respond to customer demand for more “sustainable” products and services. For larger organizations, the initial response might be from within particular business units. This eventually leads to a more integrated strategy that is driven by the executive and becomes mainstream. Many organizations consider each stage as important and the journey as being as important as the destination. Each step will typically involve accounting and measuring non-financial areas of the organization that are not subject to universal standards, which can involve many layers of complexity that cannot be addressed quickly.

- A good example of a sustainability related risk that will have far reaching implications is the challenge of water. The importance of water, stewardship, and accounting is discussed in “The Complexity and Urgency of Water: Time for the Accountancy Profession to Step Up” on the IFAC Global Knowledge Gateway.

Integration requires more than transparency or telling a good story

See Change: How Transparency Drives Performance, published by SustainAbility, argues that in order for transparency to change behavior, companies must progress efforts on three critical and interconnected elements: materiality, valuation of externalities, and integration.

When material issues are identified and prioritized to a select few, they should inform strategy and reporting. Once the most material issues are identified, an organization can begin to measure relevant externalities. Identifying both positive and negative externalities related to material issues involves understanding indirect and unaccounted for impacts associated with material issues, in particular in upstream and downstream areas of the value chain that are beyond the organization's direct control. This information is needed to fully understand and communicate the organization's role in creating value in the environment, society, and economy.

Having prioritized the most strategic material issues and accounted for the related externalities, an organization can use this information to better integrate sustainability into corporate strategy.

True integration enables companies to leverage their business model for sustainable value creation.

Does Integrating Sustainability Lead to Better Performance?

Sustainability: The ‘Embracers’ Seize Advantage, the second annual Sustainability & Innovation Global Executive Study by MIT Sloan Management Review and the Boston Consulting Group, reveals two distinct categories of companies: embracers—those who place sustainability high on their agenda; and cautious adopters—those who have yet to focus on more than energy cost savings, material efficiency, and risk mitigation. Embracers seek competitive differentiation, such as by setting themselves and their products apart from their rivals and creating new products that anticipate evolving consumer demands. While seeking cost and resource efficiency, embracers are frequently driven by leaders who seek to drive value through sustainability leadership and as part of a strategy to enhance their reputation.

There is also evidence to show that organizations that embrace sustainability experience improved financial performance over time. Research by Robert Eccles, Ioannis Ioannou, and George Serafeim demonstrates how “high-sustainability” companies dramatically outperformed a matched set of “low-sustainability” companies in both stock market and accounting measures over an 18-year period.

→ See “The Impact of a Corporate Culture of Sustainability on Corporate Behavior and Performance” on the IFAC Global Knowledge Gateway.

This superior performance is a result of very different behavior by the high-sustainability companies in terms of corporate governance, incentives for top management, internal performance measurement, external performance reporting, and stakeholder engagement.

Do Investors Care about Sustainability?

We feel that there remains a gulf between the importance placed on understanding how sustainability trends are shaping corporate value by companies and the interest in these issues from their investors. We are not alone in this belief. How many of us have thought, “I have just held over 50 roadshows with my investors and haven’t been asked a single question on how sustainability issues are impacting my business.”

—John Rogers, CFO, Sainsbury’s, and Pierre-André Terisse, CFO, Danone, Enhancing Investor Engagement, A4S Chief Financial Officer Leadership Network

Many professional accountants likely feel the same as John Rogers—questions on sustainability performance may not come up frequently.

However, IFAC’s *Investor Demand for Environmental, Social, and Governance Disclosures: Implications for Professional Accountants in Business* shows environmental, social, and governance (ESG) information is increasingly used by investors to understand an organization’s key ESG factors and how they impact overall performance over a longer time horizon. Evidence of this shift can be seen in:

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- the number of investors signing the UN’s Principles for Responsible Investment;
 - the increasing number of shareholder proposals comprising ESG resolutions;
 - surveys of investors that indicate an increasing number believe that ESG integration into the investment process maximizes beneficiaries’ long-term interest, and that good governance and sustainability practices contribute to the creation of long-term shareholder value.

Such investors are taking interest in what is underlying the performance of companies. These investors seek to better understand an organization’s business model, strategy, governance key dependencies, and significant risk factors.

Evidence also shows that companies have the ability to attract different kinds of investors through their disclosure policies. Research indicates that integrating sustainability can have a positive impact on the type of investors a company attracts—those who are specifically looking for sustainable value creation.

→ See [“Attracting Long-term Investors through Integrated Thinking and Reporting” on the IFAC Global Knowledge Gateway.](#)

Organizations with an integrated and outward-looking approach can benefit from communicating effectively on significant matters related to strategy, governance, performance, and prospects and that reflect its commercial, social, and environmental context.

Are Professional Accountants Addressing Sustainability?

Accountants have historically provided stewardship of an organization's assets and been responsible for sound financial management and reporting. However, their professionalism and professional skills enable them to effectively exercise stewardship of a broader range of assets and capitals upon which an organization depends. Evidence suggests they are increasingly taking on this broader stewardship role.

In a business partnering capacity, accountants are expected to increase their support of strategic and operational decision making in addition to fulfilling traditional stewardship responsibilities. This can involve helping organizations respond to uncertainty, improve decision making, and identify new business opportunities, and innovative processes, products, and services.

Professional accountants are poised to help their organizations develop more sustainable business practices. The challenge is they frequently lack the mandate to do so. *Redressing the Balance: How Management Accountants Drive Sustainable Corporate Strategies* (CGMA and A4S) explores the views and involvement of Chartered Global Management Accountants (CGMAs) in corporate sustainability. Among other findings, the report highlights:

- CGMAs clearly understand the business case for sustainability, with more than two thirds agreeing that there are significant financial and commercial benefits from integrating environmental and social factors into organizational decisions;

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- the majority (60%) believe that it is their responsibility as management accounting professionals to include relevant environmental and social factors in the information and analysis they give decision makers;
 - there are distinct differences in the attitudes of management accountant across the globe, with those in Africa and Asia Pacific more likely to understand the business case for sustainability and to take responsibility for analyzing environmental and social factors; and
 - only 45% of CGMAs currently include sustainability issues in their reports to decision makers. Three quarters of the respondents of this group do so because they believe sustainability impacts on cost, risk, value, and, ultimately, the company's financial performance.

→ **Sustainability is also becoming increasingly important for small- and medium-sized accounting practices and their small- and medium-sized enterprise clients. Relevant discussions and resources are available on the IFAC Global Knowledge Gateway.**

The resounding reason for not reporting on sustainability is a lack of corporate mandate, with 60% saying there is a lack of demand from decision makers and a third stating that it's not part of their role or job remit. However, more than two thirds of respondents agreed that their organizations will expect them to provide increasing amounts of environmental and social data in the next few of years.

Accountancy students also recognize sustainability challenges as the main impact on the global business environment in the next 10 years. A survey by the Association of Chartered Certified Accountants (ACCA) of 4,500 ACCA students conducted in collaboration with A4S asked their opinions about which global- or macro-sustainability trends will impact businesses and the role of accountants in countering these pressures and challenges. The responses were striking: 81% said the main impact on business by 2024 would be a decline in natural resources; 70% said an increasing population would be impactful,

a response that was notably more prominent among respondents in Africa, South Asia, and Western Europe (73%, 72%, and 70%, respectively).

These results can be viewed in a wider context of recent trends in commitments to sustainability. The sixth annual global survey of sustainability practices in January by MIT Sloan Management Review, *Joining Forces: Collaboration and Leadership for Sustainability*, shows a four-year downward trend in strong CEO commitment to sustainability.

→ Also see “Corporations, Sustainability, and Innovation: Early Results a Mixed Bag” on the IFAC Global Knowledge Gateway.

Accounting for Sustainability

A4S was established by His Royal Highness The Prince of Wales in 2004 to convene senior leaders in the finance and accounting community to catalyze a shift to a sustainable economy and resilient business models.

Aims: How A4S Brings about Change

A4S works with the finance and accounting community to:

- Demonstrate the business case, increase engagement, and build capacity to drive behavior change that results in sustainable business practices.
- Develop practical tools, guidance, and approaches that enable environmental, social, and economic risks and opportunities to be reflected in decision making.
- Facilitate the creation of an enabling environment for change through a shift to sustainable capital markets, and supportive regulatory and reporting regimes.

Core to the work of the A4S is its CFO Leadership and Accounting Bodies Networks—see accountingforsustainability.org for more information.

Making a Difference: What Can Professional Accountants in Business Do?

To be effective business partners in the various roles they perform, professional accountants can focus on the following actions.

- **IDENTIFY AND CONNECT** trends and impacts that are important to the organization and the connection to the organization's strategy, business model, and performance.
- **INTEGRATE** significant natural and social capital issues into management information used to formulate strategies, plans, and targets, and investment decisions.
- **ASSESS** the benefits of responding to environmental and social matters, for example how they contribute to value creation, cost reduction, or revenue generation, as well as other benefits, such as making the organizations more attractive to employees or improving its reputation.
- **ORGANIZE** systems, processes, and people to support decision making and ensure that what matters gets measured and managed.
- **LINK TO VALUE CREATION** to ensure resources are used effectively in creating value for shareholders, customers, and other stakeholders.

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- **DRIVE EFFICIENCY** through reducing waste and lowering costs.
 - **PROVIDE CREDIBILITY** to data and information through effective governance and oversight.
 - **COMMUNICATE** clearly to facilitate transparency through stakeholder communications and disclosures supported by appropriate reporting frameworks, such as integrated reporting.

Useful Resources for Accountants by Focus Area

The matrix on the following page highlights how accountants, depending on their position and sphere of influence, can facilitate the resilience of their organizations. Cited resources, tools, and techniques, some of which will be familiar to accountants, can be found on the IFAC Global Knowledge Gateway (see “business resilience” subtopic under Sustainability).



Your Portal to Global Accountancy Knowledge, Resources, and News

www.ifac.org/Gateway

The listed resources include the work of the global accountancy profession through various types of awareness-raising and educational initiatives, including policy and research, guidance and tools, changes to accountancy education curriculum and standards, and continuing professional development training.

The resources listed are not intended to be exhaustive. If you would like additional relevant resources to be included, please email Gateway@ifac.org.

LEADERSHIP AND BUSINESS STRATEGY

FOCUS AREA

WHAT CAN ACCOUNTANTS DO?

RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES

Make sustainability strategic, not just tactical

Finance has the skills and ability to support the business to ensure sustainability initiatives are strategic rather than tactical in nature.

Identifying the business case at an organizational, project, or issue level

For example, a business case might be needed in relation to dealing with a natural resource or energy dependency

- Identify and facilitate an understanding of relevant environmental, social, and governance or sustainability, factors and how to deal with them as part of an organization's strategy and operations.
- Establish a systematic approach to stakeholder engagement to help identify and consider relevant issues, for example, collaborating closely with suppliers to improve sustainability performance and procurement.
- Apply a financial mindset by establishing a business case and financial impact for sustainability action and specific projects. How does sustainability contribute directly to business value, either through revenue generation, cost control, risk management, or innovation?
- Deal with specific sustainability issues, such as natural resource dependency, as a strategic, competitive, and financial issue at the board level and facilitate debate on how these relate to strategy, business model, and performance outlook.
- Build knowledge in sustainability matters via continuing professional development; this might include learning about sustainability and related challenges and opportunities more generally, and specifically considering how specific sustainability matters are relevant to an organization and its objectives.

The sustainability challenge:

- World Wildlife Fund, 2012 *Living Planet Report*
- World Business Council on Sustainable Development, *Vision 2050*
- Natural Capital Coalition and Trucost, *Natural Capital at Risk: The Top 100 Externalities of Business*
- Accounting for Sustainability, *Future Proofed Decision Making*
- Chartered Accountants Australia and New Zealand, *20 Issues on Building a Sustainable Business and Integrating Sustainability—A Case Study Approach*
- World Economic Forum, *Global Risks Reports 2014 and 2015*
- Risky Business, *The Economic Risks of Climate Change in the United States*
- Mercer, *2015 Study: Climate Change*

Identifying and prioritizing issues:

- IFAC, *Investor Demand for Environmental, Social, and Governance Disclosures: Implications for Professional Accountants in Business*
- Sigma Guide to Sustainability Issues
- International Organization for Standardization (ISO) 26000: 2010—Guidelines for Social Responsibility
- OECD Guidelines for Multinational Enterprises—government-backed recommendations on responsible business conduct
- UN Global Compact, *The Ten Principles of the UN Global Compact*
- Global Reporting Initiative, G4 Sustainability Reporting Guidelines
- Sustainability Accounting Standards Board sector standards and Materiality Map
- EY, *Materiality and Sustainability Disclosure, Key Insights from the ASX Top 100*
- KPMG, *The Essentials of Materiality Assessment*
- AccountAbility, *Redefining Materiality II: Why It Matters, Who's Involved, and What it Means for Corporate Leaders and Boards*
- The CERES Roadmap for Sustainability
- ACCA, *Identifying Natural Capital Risk and Materiality*

Effective stakeholder management:

- UNEP, *The Stakeholder Engagement Manual: The Practitioner's Handbook on Stakeholder Engagement* takes organizations through basic steps and considerations in planning and developing stakeholder engagement.
- AccountAbility's AA1000 *Stakeholder Engagement Standard (SES)* provides a principles-based, open-source framework for stakeholder engagement.

Relevant courses for accountants:

- A number of professional accountancy organizations have learning programs on sustainability, for example the Institute of Chartered Accountants in England and Wales Business Sustainability Programme, an e-learning program covering corporate responsibility and the issues facing companies in becoming sustainable.

LEADERSHIP AND BUSINESS STRATEGY

FOCUS AREA	WHAT CAN ACCOUNTANTS DO?	RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES
<p>Facilitate leadership and commitment</p>	<ul style="list-style-type: none"> Secure commitment and buy-in from organization leaders and management so that sustainability is a part of doing business and supports business resilience. Create a vision and supporting organizational culture that embraces sustainability and sustainable value creation. Implement governance and accountability arrangements at governing body and management levels to ensure sustainability considerations are embedded at all organizational levels. Incorporate a sustainability narrative in investor communications and dialogue. 	<p>Leadership and change management:</p> <ul style="list-style-type: none"> Dutch Sustainability Growth Coalition, <i>Leadership and Corporate Governance for Sustainable Growth Business Models</i> Conference Board, <i>The Role of Business in Society: An Agenda for Action</i> MIT Sloan Management Review and the Boston Consulting Group, <i>Embracers Seize the Advantage</i> Volans, <i>The Future Quotient</i> Institute of Management Accountants, <i>Implementing Sustainability: The Role of Leadership and Organizational Culture</i> A4S, CFO Leadership Network IFAC, CIMA, and EY, <i>Accounting for Natural Capital: The Elephant in the Boardroom</i> National regulations and guidelines, for example the <i>Voluntary Guidelines on Social, Environmental, and Economic Responsibilities of Business in India</i> UN Global Compact, <i>Impact: Transforming Business, Changing the World</i>
<p>Engage the finance and accounting function</p>	<ul style="list-style-type: none"> Reach out to sustainability and operational colleagues to establish how the finance team could support them. Provide support on establishing robust processes and systems for capturing and reporting non-financial data, and demonstrating the financial implications of decisions or various courses of action. Help others speak the language of the business, and connect sustainability matters to the objectives, strategy and business model of the organization. Incorporate sustainability matters into the strategic and operational metrics that drive value creation over time and are used to monitor and manage the performance of the organization. 	<p>Case studies on the role of sustainability and finance teams:</p> <ul style="list-style-type: none"> Perry's Ice Cream's finance team, as an essential member of the Perry's Sustainability Team, gathers and evaluates key performance measures and milestones and reports them consistently, reliably, and regularly. Asda's finance team plays an intrinsic role in the decision-making process including planning, testing, and roll-out of sustainability programs, such as zero waste to landfill. The case study covers four sustainability projects and plenty of invaluable sample models and project summary documents. Adnams Brewery's retail management accountant is at the heart of its environmental activities. Compass' management accountant calculated the potential cost savings of the investment to introduce steam valve technology to one of the largest food and support service businesses in the world and how a tracking system was used to minimize waste. Marshalls plc's finance team designed and used spreadsheets to support a major carbon labelling project to generate a relevant carbon label for each product family. Sainsbury's finance, agriculture, and buying teams worked with dairy farmers to develop a Cost of Production model that readjusts the volatile costs associated with milk production.

LEADERSHIP AND BUSINESS STRATEGY

FOCUS AREA

WHAT CAN ACCOUNTANTS DO?

RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES

Connecting sustainability to strategy, risk, and performance, and identifying how decisions can be enhanced by integrating sustainability-related information into areas such as business planning, risk and performance management, and investment appraisal

- Identify significant drivers from different perspectives: legal requirements, resource consumption, the environmental impact of emissions, or the demands of key interest groups, such as customers.
- Assess how these might affect the organization positively and negatively.
- Sustainability issues have strategic and operational implications but could also have implications for the financial statements and the related audit. For example, climate change regulation that creates a cost of carbon will have strategic, operational, and financial implications. Once defined, these aspects can be subjected to a systematic management process.
- Consider a range of competitive strategies to embrace sustainability risk and opportunity.
- Set and cascade goals, targets, and performance measures to facilitate the delivery of vision and strategy.
- Use management control systems to operationalize sustainability and to ensure alignment of sustainability performance to organizational objectives.

- Accounting for Sustainability, *Managing Future Uncertainty: Integrating Risks Resulting from Macro Sustainability Trends into Business Decision-Making*
- CIMA, *Sustainability Performance Management: How CFOs Can Unlock Value*
- CIMA, *Garden Designs to Improve the Line of Sight: Implementation of the Balanced Scorecard and Alternative Costing System at the Royal Botanic Garden Edinburgh*
- Chartered Accountants Australia and New Zealand, *Twenty Issues on the Business Implications of a Carbon Cost*
- Committee of Sponsoring Organizations of the Treadway Commission (COSO), *Demystifying Sustainability Risk and Managing Risk for a Sustainable Future: Integrate Sustainability into the Business Using the Enterprise Risk Management Framework*
- ISO 31000: 2009 Risk Management Standard
- IFAC, "Of Scenarios and Accountants: The Importance of Scenario Analysis for Organizations" (Global Knowledge Gateway) to evaluate and assess uncertainties
- World Bank, "Preparing for a Price on Carbon: Lessons from 3 Companies"
- Balanced Score Card Institute, *Link Sustainability to Corporate Strategy Using the Balanced Scorecard*

MANAGEMENT, OPERATIONS AND ACCOUNTING

FOCUS AREA

WHAT CAN ACCOUNTANTS DO?

RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES

Improve the process of information and data collection, analysis, and reporting

Finance professionals bring the rigor and discipline used in accounting to the collection, analysis, and reporting of sustainability data. They need to work closely with sustainability professionals, and others, to understand what information needs to be captured and how it is to be used.

Generating information and analysis to support decisions

- Develop appropriate approaches to accounting, measurement, and quantification of environmental, social, and other relevant information and externalities to support decision making.
- Incorporate broader information into planning and financial processes, such as business planning, budgeting and forecasting, and project and investment appraisal.
- Internalize external impacts by incorporating appropriate costs and benefits into the decision-making process using tools and techniques, such as environmental management accounting and lifecycle assessment. Such techniques, in addition to effective stakeholder engagement, can help to identify and quantify costs and benefits, and risks and opportunities related to both current and future strategies and operations.
- Develop strategic performance measurement systems, performance measures, and KPIs to ensure the delivery of strategic and sustainability-related objectives.
- Measure innovation and R&D investment in relation to sustainability.
- Integrate information and data requirements into management and/or accounting systems with appropriate control mechanisms.

- Natural Capital Coalition (NCC), Natural Capital Business Hub (web portal), making the business case and providing learnings from other companies; the NCC will soon release the Natural Capital Protocol—a standardized framework for measuring, managing and reporting natural capital in business and investor decision making.
- Human Resources Accounting in Infosys
- Corporate Eco Forum, *The New Business Imperative, Valuing Natural Capital*
- World Business Council for Sustainable Development Corporate Ecosystems Programme, *Guide to Corporate Ecosystem Valuation*
- IFAC, *Project and Investment Appraisal for Sustainable Value Creation*
- National guidance on the application of cost benefit analysis, such as in the public sector, UK Government's HM Treasury Supplementary Green Book Guidance, *Accounting for Environmental Impacts*
- A4S, *CAPEX: A Practical Guide to Embedding Sustainability into Capital Investment Appraisal and Natural and Social Capital Accounting: An Introduction for Financial Decision Makers*
- Accounting for Intellectual Capital, "The Management Accountant" from the *Journal for Chartered Management Accountants*

Applying management accounting to environmental sustainability:

- IFAC, *Environmental Management Accounting* supports the management of environmental and economic performance via management accounting systems and practices that focus on both physical information on the flow of energy, water, materials, and wastes, as well as monetary information on related costs, earnings and savings.
- IFAC, "Using Management Accounting to Drive Environmental Performance" is useful for applying activity-based costing and management to environmental sustainability.
- National cost accounting standards that consider environmental matters, such as the Cost Accounting Standards in India.

MANAGEMENT, OPERATIONS AND ACCOUNTING

FOCUS AREA	WHAT CAN ACCOUNTANTS DO?	RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES
<p>Reducing the sustainability impact of products, services, and operations</p>	<ul style="list-style-type: none"> • Implement supporting tools, such as full and material flow cost accounting, life-cycle analysis, and costing, to reveal and ensure the availability of information relating to opportunities, risks, costs, and benefits. • Support the design and development of products and services aligned with sustainability goals, for example, through carbon foot printing of a product/service. • Identify opportunities for minimizing waste and creating energy efficiencies. • Support process redesign to reduce material inputs and improve sustainability impact of products and services. • Target investment, for example, in energy-efficient equipment to improve energy efficiency or in recycling facilities to reuse or reduce waste. • For financial planning and management, consider incorporation of: <ul style="list-style-type: none"> • Green/carbon taxes or climate change levies on energy use to provide incentives for reducing consumption; • Enhanced capital allowances to encourage the purchase of qualifying energy-efficient equipment; • Tax credits or government grants for research and development, for example, in developing renewable sources of energy; and • Landfill taxes to encourage the reduction of waste and landfill and legislation to promote better product designs and recycling (for example, the EU’s End-of-Life Vehicles Directive and the Waste Electrical and Electronic Equipment Directive improve the recycling of scrapped vehicles and require producers of electrical equipment to pay for end-of-life collection of their products). 	<ul style="list-style-type: none"> • ISO standards for Environmental Management, and establishing an Environmental Management System, starting with ISO 14001:2004. Also includes ISO 14051:2011, Material Flow Cost Accounting. • Lifecycle analysis and whole-life costing using international and national standards, such as ISO 14040:2006, Environmental Management—Life Cycle Assessment: Principles and Framework, and ISO 14044, Environmental Management—Life Cycle Assessment: Requirements and Guidelines, and guidelines from the profession, for example Whole-Life Costing by the Chartered Institute of Public Finance and Accountancy. • Greenhouse Gas Protocol Standards for accounting and reporting of greenhouse gas emissions (to measure impact specifically on global warming), including at project and product levels and national variations, such as PAS 2050 developed by the British Standards Institute.

COMMUNICATIONS, REPORTING, AND DISCLOSURE

FOCUS AREA

WHAT CAN ACCOUNTANTS DO?

RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES

Integrate with reporting

Finance professionals are best placed to incorporate meaningful sustainability performance information into business reporting processes and disclosures, and to inform stakeholders of an organization's ability to create value over time.

Developing a business reporting strategy and approach

- Connect report content to stakeholder need.
- Disclose what matters and determine materiality from various perspectives, such as time (short, medium, long term), audience (shareholder vs. stakeholder), geography (global, regional, local), etc.
- Determine the range of users and their needs for various types of reports and disclosures.
- Use, and combine where necessary, appropriate reporting frameworks and guidelines to help develop reporting processes and to ensure that all relevant financial and non-financial information is disclosed allowing users to benchmark performance.
- Apply appropriate oversight and controls to non-financial data (as with financial data and disclosures).

Reporting Standards and Frameworks

- *International Integrated Reporting Framework* to provide greater transparency on business performance and value creation over time
- Global Reporting Initiative (GRI), the comprehensive Sustainability Reporting Framework widely used around the world to enable greater organizational transparency; GRI Sustainability Disclosure Database provides access to all types of sustainability reports
- Sustainability Accounting Standards Board sustainability accounting standards that help public corporations disclose material, decision-useful information to investors
- Single-issue accounting frameworks such as the Greenhouse Gas Protocol and the Australian Water Accounting Standards Board's Water Accounting Conceptual Framework and General Purpose Water Accounting Reports
- Climate Disclosure Standards Board, Climate Change Reporting Framework, to encourage a harmonized approach to the preparation of climate change-related disclosures

Implementation Guidance

- IFAC, *Principles for Effective Business Reporting Processes*
- World Business Council on Sustainable Development, *Reporting Matters—WBCSD 2013 Baseline Report*
- Integrated Reporting Committee of South Africa, *Preparing an Integrated Report, A Starters Guide*
- Chartered Accountants Australia and New Zealand *Integrated Reporting—A Guide for Audit Committees in Australia and New Zealand*
- GRI, *Carrots and Sticks: Promoting Transparency and Sustainability*
- CPA Canada, *A Starter's Guide to Sustainability Reporting*
- Toronto Stock Exchange and CPA Canada, *A Primer for Environmental and Social Disclosure*

COMMUNICATIONS, REPORTING, AND DISCLOSURE

FOCUS AREA	WHAT CAN ACCOUNTANTS DO?	RELEVANT TOOLS AND TECHNIQUES AND USEFUL RESOURCES
Integrating sustainability impacts into financial reporting	<ul style="list-style-type: none"> • Determine specific sustainability disclosure requirements under national securities regulations and generally accepted accounting principles. • Where appropriate, incorporate sustainability factors into financial statements so to highlight environmental and social impacts on assets, liabilities, income, and expenditure to enable users to make more well-informed decisions. • Establish how to reflect environmental, and, where applicable, other sustainability related, liabilities and costs in financial statements prepared under International Financial Reporting Standards. • Consider the benefits of reporting monetary values relating to environmental impacts, such as emissions, water, land use, waste, and air pollution. • Consider how best to communicate impacts and subsequent action plans. For example, an environmental profit and loss statement can show the critical impact of products on the environment and the value this represents equivalent to a company's financial profit and loss. 	<ul style="list-style-type: none"> • IFAC, Sustainability Framework 2.0 highlights international accounting standards relevant to environmental issues • US Environmental Protection Agency, Greenhouse Gas Reporting Program • Australia's National Greenhouse and Energy Reporting Scheme • Examples of environmental profit and loss accounts include Novo Nordisk, Trucost, and PUMA. • ACCA, <i>Carbon Avoidance? Accounting for the Emissions Hidden in Reserves</i>
Assuring Sustainability Disclosures and Reports	<ul style="list-style-type: none"> • Establish an approach to external assurance that adds credibility to an organization's reporting and provides internal benefits, such as helping to improve underlying reporting processes. • Use internal audit to help design and implement the sustainability management system that helps to ensure objectives are delivered and to manage reporting risk. 	<ul style="list-style-type: none"> • Relevant standards: <ul style="list-style-type: none"> • American Institute of CPAs, <i>The CPA's Role in Sustainability Assurance</i> • International Standard on Assurance Engagements™(ISAE™) 3000 Revised, <i>Assurance Engagements Other than Audits or Reviews of Historical Financial Information</i>, focuses on assurance procedures for non-financial reporting (see Volume 2 of the Handbook). ISAE 3410, <i>Assurance Engagements on Greenhouse Gas Statements</i>, provides specific guidance for the assurance of carbon/greenhouse gas disclosures, which covers both reasonable and limited assurance engagements (see Volume 2 of the Handbook). ISAE 3402, <i>Assurance Reports on Controls at a Service Organization</i>, also covers systems and processes of an organization that affects non-financial information. • AccountAbility, AA1000 assurance standard • National standards, such as Nederlandse Beroepsorganisatie van Accountants, <i>Assurance Engagements Relating to Sustainability Reports (3410N)</i> • ISO 14064-3:2006 specifies principles and requirements and provides guidance for making greenhouse gas assertions. ISO 19011:2011, <i>Guidelines for Audit Management Systems</i> • Chartered Accountants Australia and New Zealand, <i>The Benefits of Assuring Greenhouse Gas Emissions: Why It Is Important and How to Get the Most Value from It</i> • GRI, <i>The External Assurance of Sustainability Reporting</i> for key qualities for external assurance



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