



GEMI[®]

THE GLOBAL ENVIRONMENTAL MANAGEMENT INITIATIVE (GEMI) SOLUTION TOOLS CATALOGUE RESOURCE GUIDE

2011

The ***GEMI Solution Tools Catalogue Resource Guide*** contains a brief overview of each of the GEMI solution tools, with a hyperlink to the pdf of each tool.

The tools are listed in reverse chronological order--that is, with the most recently developed first working back to the oldest.

The Global Environmental Management Initiative (GEMI) is a global leader in developing insights and creating environmental sustainability solutions for business. GEMI, is a nonprofit organization, comprised of leading companies dedicated to fostering environmental, health, and safety and sustainability excellence and corporate citizenship worldwide. Through the collaborative efforts of its members, GEMI also promotes a worldwide business ethic for business helping business achieve environmental sustainability excellence.

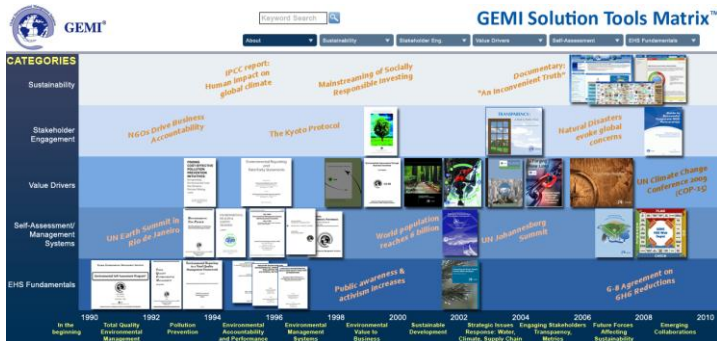
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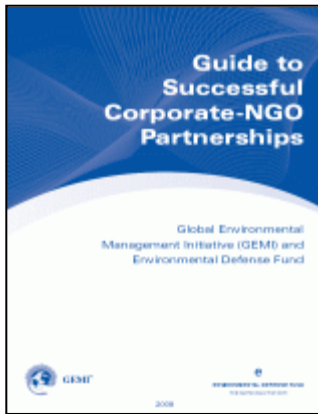
GEMI Solution Tools Matrix[™]

The **GEMI Solution Tools Matrix[™]** is an interactive, web solution for users around the world to access the +30 publicly-available, solutions-based tools designed to help companies & organizations in their own pursuit of EHS and sustainability excellence to improve the environment, their operations and add business value. 2010

The Matrix guides users around GEMI's diverse portfolio of solutions-based tools that the

organization has developed over the past 20 years.

The Guided Discovery section of the GEMI Solution Tools Matrix[™], which is being launched in mid-2011, is to help users who are unfamiliar with the GEMI tools find useful information and a more appropriate tool for their need. To that end, the Guided Discovery contains a set of introductory questions to guide the user into determining which of the GEMI solution tools will be most relevant based on their responses. Upon completing the 7 questions, the user will be presented with a set of responses based on their previous responses and be able to view a result list of relevant GEMI solution tools, view the pop-up description as well as click through to the item detail page for that solution tool.



GEMI-Environmental Defense Fund (EDF): Guide to Successful Corporate-NGO Partnerships

The GEMI-EDF Guide to Successful Corporate NGO Partnerships is the product of collaboration among GEMI member companies and Environmental Defense Fund. It is intended as a comprehensive aid to organizing, designing, implementing and measuring the success of corporate-NGO partnerships. The Guide also includes several case examples of successful partnerships. While the focus is on environmental projects, we feel the lessons learned can apply to any type of sustainability-driven partnership that involves active engagement between businesses and NGOs. 2008. 30 pages

The Guide contains the following sections:

Why Partner. An overview of the key drivers behind business-NGO partnerships as well as potential pitfalls

Partnership Best Practices. Detailed recommendations for successful business-NGO partnerships based on Environmental Defense Fund's almost 20 years of working with corporations and the legacy of GEMI member companies' experiences. This section is organized into three parts: outlining best practices in project design (Part 1); project implementation (Part 2); and, measurement of results (Part 3) and contains specific examples of business-NGO partnerships featuring a range of experiences among GEMI companies and Environmental Defense Fund. These case examples highlight aspects of partnership best practices as well as the environmental, social and business benefits.

Companies can help the environment and the communities where they operate in many ways, including through philanthropic activities. In this Guide, however, we distinguish business-NGO partnerships from corporate philanthropy. In our view, a true partnership between a company and an NGO should not rely solely on financial contributions. Rather, a partnership occurs when independent organizations bring together their distinct views, expertise and resources to work towards common goals. A partnership is best measured by the environmental and business results achieved once both organizations have shared the risks, responsibilities and rewards of the project.

This Guide focuses on environmentally driven partnerships, including partnerships with broader mandates that have environmental components. However, we believe that many of the practices can be adapted to a wider range of business-NGO partnerships, including those addressing community developments, health and other social issues.

The Guide is a product of a business-NGO partnership involving GEMI member companies and Environmental Defense Fund, so it is also self-reflective. Based on an earlier Environmental Defense Fund publication, *Catalyzing Environmental Results: Lessons in Advocacy Organization-Business Partnerships (1999)*, this updated Guide reflects the more recent partnership experiences of GEMI member companies and Environmental Defense Fund.



GEMI HSE Web Depot | Print • Glossary • FAQs • Case Studies • Resources | Keyword Search

The GEMI HSE Web Depot, an ongoing collaborative effort of the GEMI IISG Work Group, is a web-based information resource for Health, Safety & Environment - Management Information Systems (HSE-MIS) development and improvement. The purpose of the tool is to facilitate information sharing among practitioners in this rapidly evolving field. [click for more](#)

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About GEMI

send to a friend

PLAN (START) | **DO** | **CHECK** | **ADVANCE**

GEMI HSE Web Depot

Strategic Evaluation, Process Mapping, Information Analysis, Technology Vision, GAP Analysis, Prioritization, Transition to Implementation, Business Rules, User Input, Budget, Build or Buy, Contribution & Customization, Pilot Implementation, System Testing, System Rollout

Global Considerations, Risk Monitoring, Business Integration, Achievements in Technology, Lessons Learned, New Business Requirements, Verification, Performance Measures, User Feedback, Business Process Support, Technical Support, Training

Business, Correct Issues, Quality

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The GEMI HSE Web Depot

The **GEMI HSE Web Depot** was originally developed in 2000 as a web-based resource for the development and continual improvement of Health, Safety & Environment Management Information Systems (HSE-MIS). The GEMI HSE Web Depot presents a framework for HSE-MIS planning, development, system rollout and improvement and organizes company experiences within these areas. 2007

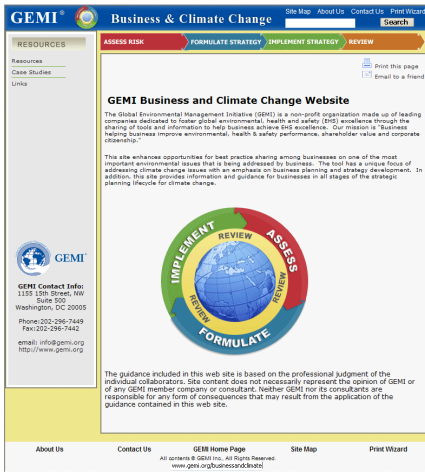
GEMI developed this new updated version of the GEMI HSE Web Depot contains information on:

- Strategies for planning, designing, evaluating, and improving HSE systems
- Planning and development processes
- Evaluating business benefits
- Examples of best practices.

HOW TO USE THE HSE WEB DEPOT -- The HSE Web Depot is based on a Plan, Do, Check, Advance (PDCA) lifecycle. The order of these steps is completely dependent upon how the Web Depot is being used. A visitor to the Web Depot may find value in going through the entire tool or by selecting a topic of interest and diving in a bit deeper.

FINDING VALUE IN THE GEMI HSE WEB DEPOT -- Companies around the world are rapidly discovering that proactive HSE management makes business sense. Leading edge companies have moved corporate EHS professionals from their basement offices to the boardroom, and are reaping the benefits of improved profitability and competitiveness resulting from the integration of HSE management into traditional business functions and decision-making. Effective HSE – Management Information Systems (HSE-MIS) are a critical success factor in this process.

Corporate HSE professionals, however, still face an uphill battle in persuading senior management that investments in HSE-MIS do indeed lead to an improved bottom line. Unfortunately, the benefits of improved information management (e.g. innovation and process improvements, increased employee productivity, enhanced brand image, reduced regulatory liability, etc.) are difficult to measure and are often dispersed among different functional units of a company. This means that benefits, both tangible and intangible, must be carefully and deliberately identified, measured, and documented to demonstrate the value of investments in HSE-MIS to senior management.



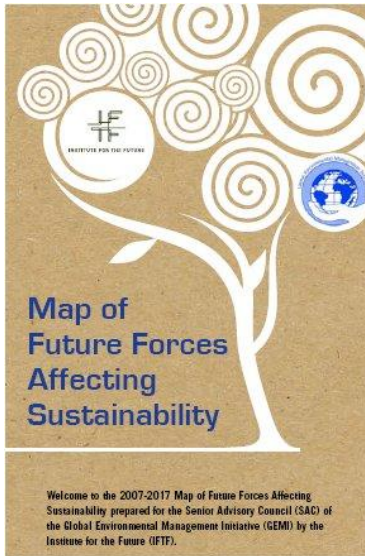
GEMI's Business and Climate web tool

The GEMI Business and Climate web tool was originally developed in 2000 to help GEMI members and other companies address climate change issues, with a unique focus on business planning and strategy development. In response to considerable scientific, policy and business developments related to global climate change since 2000, GEMI members agreed that the content of the web site needed to be up-to-date and provide ongoing value to its target market.

This new version of the web tool provides information and guidance for businesses in all stages of the strategic planning lifecycle for climate change. The site is organized into four planning stages--Assess Risks, Formulate Strategy, Implement Strategy and Review. Advice and resources are provided from businesses that have already completed one or more of the planning stages.

The content of GEMI's *BusinessandClimate* web tool includes guidance based on company experience as well as several specific company case studies, directly from GEMI company experiences. It has a unique focus on planning and strategy development. GEMI, and this web site, holds a neutral position on the scientific debate and does not address political, scientific or advocacy issues.

This site enhances opportunities for best practice sharing among businesses on one of the most important environmental issues that is being addressed by business. The tool has a unique focus of addressing climate change issues with an emphasis on business planning and strategy development. In addition, this site provides information and guidance for businesses in all stages of the strategic planning lifecycle for climate change.



The GEMI-ITF Map of Future Forces Affecting Sustainability

The GEMI-ITF Map of Future Forces Affecting Sustainability has been designed to help GEMI companies develop their own perspective of a future being shaped increasingly by external forces linked to concept of sustainable development. The Map includes elements that some may view as controversial, but recognizes the objective of this effort is to provoke thoughtful discussions. (Interactive web tool with video clips). 2008

The Map has been designed to help GEMI companies develop their own perspective of a future being shaped increasingly by external forces linked to the concept of sustainable development. The Map includes elements that some may view as controversial, but recognizes the objective of this effort is to provoke thoughtful discussions that will help companies shape their business strategies in light of a more sustainability-driven future.

In addition to the Map, GEMI has developed a 45-minute video, comprised of 11 chapters of Bob Johansen of IFTF walking through each of the panels / columns of The Map, as well as a detailed webinar that was originally held in August 2007 for our members.



GEMI Metrics Navigator[™]

*The **GEMI Metrics Navigator**[™] is to help organizations develop and implement metrics that provide insight into complex issues, support business strategy and contribute to business success. The tool presents a thorough, six-step process to select, implement and evaluate a set of 'critical few' metrics that focus on an organization's success. Each step provides guidance in the form of a worksheet, series of questions or checklist. (Report and supplemental online web tool) 2007. 56 pages*

Click here to view the overview presentation of the **GEMI Metrics Navigator**[™]

Traditionally, business objectives have been defined and measured in financial terms. Yet, to realize the value of addressing environmental, social and broader economic issues, non-financial metrics can also drive success in the organization by indicating how well it executes on its values and beliefs. These metrics are needed to complement traditional financial measurement systems and help organizations manage long-term business opportunities and future uncertainty and risks.

The challenge is to use the right mix of metrics that provides value to the organization – by providing meaningful information, informing strategy and supporting decision-making.

GEMI Metrics Navigator[™] is a tool to help organizations develop and implement metrics that provide insight into complex issues, support business strategy and contribute to business success. The tool presents a thorough, six-step process to select, implement and evaluate a set of 'critical few' metrics that focus on an organization's success. Each step provides guidance in the form of a worksheet, series of questions or checklist.

Any organization can use the tool and apply it at any organizational level. The process is very flexible and does not dictate how to complete the worksheets. In fact, the tool does not require that worksheets be used at all, if an organization already uses proven internal processes for particular steps. The strength of the tool is that it offers a rigorous thought process. The greatest value is in how it helps individuals, groups or entire organizations think through the process - the logical flow of the six steps - and not in the methods included. The summary worksheet (on page 5) provides an overview of the process and captures the critical conclusions from the six steps.

In a very practical way, the **GEMI Metrics Navigator**[™] helps the user to:

- Determine what is material -- ask the right questions, prioritize issues, identify objectives and understand potential consequences at several decision points
- Decide what and how to measure – understand the interactions between economic, social and environmental issues and sort through an array of possible metrics
- Implement a metrics program.

Once the metrics have been chosen, this tool helps the user analyze how effectively the non-financial metrics:

- Inform business decisions and leadership
- Align environmental, social and economic issues with business strategy
- Respond to issues identified by employees and external stakeholders
- Help integrate holistic thinking into the organization's culture
- Reflect business values and yield business benefits

The principal benefit of using this tool is to advance business performance through the development and use of non-financial measurements.



GEMI SD Planner™ and SD Gateway

*The **SD Planner™** is an interactive web-tool is a detailed, comprehensive planning tool that you can use to establish baseline performance, assess opportunities, set goals, develop action plans and evaluate progress towards your sustainable development objectives. This software tool was created because the members of GEMI recognize the need and opportunity for business to address environmental, economic and social issues in a way that creates business value. 2007. (Interactive web tool).*

Click here to view the overview presentation of [**GEMI SD Planner™ and SD Gateway**](#)

This software tool was created because the members of GEMI recognize the need and opportunity for business to address environmental, economic and social issues in a way that creates business value.

SD Planner™ is a detailed, comprehensive planning tool that you can use to establish baseline performance, assess opportunities, set goals, develop action plans and evaluate progress towards your sustainable development objectives. Use of this tool will assist you in identifying the critical sustainable development issues that are important to your business activities. *SD Planner™* is not a Code of Conduct for companies. It is not designed to suggest that companies should be actively engaged in all of the elements. It is a tool to be used internally within companies that recognize the importance of systematically considering environmental, economic development and social equity issues in a way that creates the most value for their business enterprise.

SD Planner™ is designed for use by a variety of different groups within a company/organization. It is optimized for use by a business unit, but it can also be used by a corporate group on behalf of the company as a whole. Typically, a functional group will assume a lead role for applying the tool, and a specific individual or team will be responsible for actually entering information and generating results. However, because of the broad scope of the tool, it is likely that this team will need to interface with representatives from several functional areas, potentially including strategic planning, marketing, communications, human resources, operations, distribution, research and development, finance and environmental, health and safety. The team will also need to define the organizational scope of the tool's application (e.g., wholly owned subsidiaries, partially owned subsidiaries, joint ventures, contractors, investments).

Depending upon the composition of the team and the functional groups that need to contribute, there are several possible methods of application:

- A primary information gatherer can be assigned to collect all of the responses necessary to complete the diagnostic and assessment portions of *SD Planner™*. This can be accomplished through a series of interviews with functional specialists.
- The primary user can generate paper copies of the assessment forms for the various SD elements, distribute these to appropriate specialists along with relevant guidance, and then compile the results.
- The primary user can invite the required specialists to complete the assessments electronically. This should be done on a single hardware platform, since *SD Planner™* does not support integration of distributed data from multiple sources.

The architecture of *SD Planner™* is based on a simple five-step planning process that correspond to the three major activities that the tool supports as depicted in the figure on the following page:

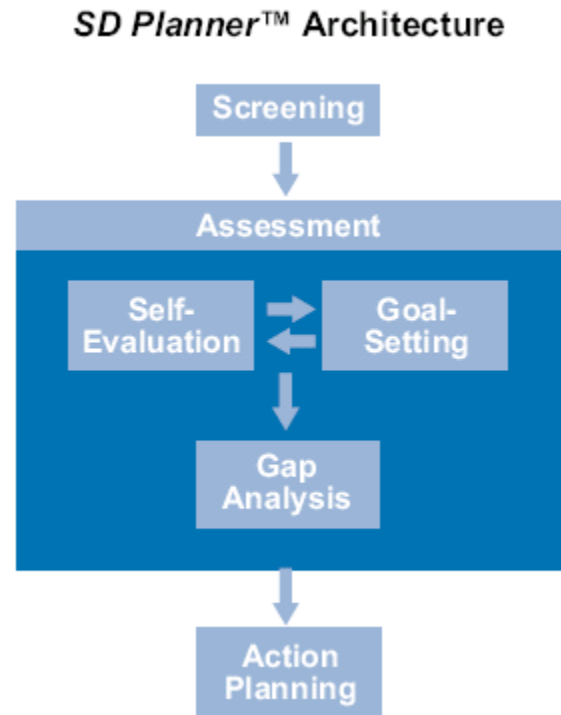
- Screening: This step is the starting point for any application, and enables you to identify your company context, key issues, and initial focus. This information will influence *SD Planner™*'s recommendations regarding potential goals and actions.

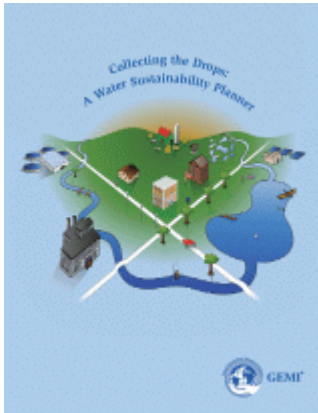
- **Assessment:** The assessment activity is the heart of the tool, and consists of three steps that can be performed iteratively:
 - *Self-Evaluation* enables you to apply a set of assessment templates that characterize your company's SD status for specified elements.
 - *Goal-Setting* enables you to set goals for specified SD elements.
 - *Gap Analysis* enables you, at any point during the assessment, to compare status against goals for specified SD elements, and thus identify gaps.
- **Action Planning:** This step proposes actions that will address the gaps identified above, and enables you to print action planning reports for specified SD elements.

Context-specific guidance is available at all times to help define and illustrate the SD concepts being presented. *SD Planner*[™] is extremely flexible, so that you can work on the above steps for selected SD elements in any order, and can save partially completed assessments for later revision and updating.

Most likely, *SD Planner*[™] will be used over an extended period of time, involving multiple sessions of information gathering, assessment, revision, planning, and updating. For companies that embark upon an SD program, it can serve as an ongoing repository of status information to support tracking of progress.

In addition, the graphical nature of *SD Planner*[™] allows it to be used not only for assessment and planning purposes, but also to support status briefings to management, dialogues with internal and external stakeholders, and development of communication materials.





Collecting the Drops: A Water Sustainability Planner -- *Collecting the Drops: A Water Sustainability Planner* is an interactive web tool, designed to be used by companies that are ready to address the water sustainability challenges that are increasingly impacting companies around the world. The GEMI Water Planner is intended to guide a user through the process of taking a corporate sustainability strategy and converting it into a site or unit strategy for water. 2007. 28 pages. W-201.

Click here to view the overview presentation of [Collecting the Drops: A Water Sustainability Planner](#)

Business risk and opportunity assessments have evolved to include analyses of water use, impact of use and “license to operate” considerations. These assessments are used to create short- and long-term water sustainability strategies. *Collecting the Drops: A Water Sustainability Planner* is a tool segregated into three Modules that guides a facility user through: the process of assessing the facility’s specific water uses/needs in comparison to the availability of water in the region; the impacts these operations pose on the available water resources; and the identification of factors that may pose a risk on the operation’s ability to produce. Case examples of how GEMI members have identified opportunities to efficiently manage water resources are also provided.

There are several factors that, when all summed up, form an operation’s relationship to water. These factors can include such items as: the quality and quantity of water available for use, the cost of water, environmental sensitivities of the region, current/projected community development and the adequacy of the current infrastructure.

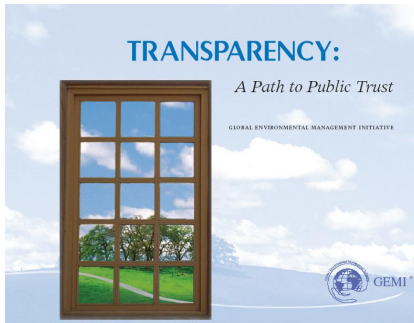
Regions throughout the world are experiencing significant water shortages. Population shifts to coastal regions, smaller towns and cities adjacent to large cities have stressed existing suburban infrastructure and required agencies to impose further restrictions or cost sharing with users. However, growth can occur without further stress on water resources and there are several cases of sustainable growth in water “limited” areas. In parallel, the cost of water has increased, and will likely continue to increase around the world driven by demand for high quality water and limits on the resources. Water conservation efforts have been imposed in many areas throughout the world and require groundwater and surface water use allocation permits.

This document and the associated web site (www.gemi.org/waterplanner) have been developed to provide facility staff or operating division staff the tools and guidance to perform an assessment of their facility’s water use and the impacts on the local or regional water supply. Guidance and individual programs are provided to assist the user in understanding the wide range of considerations that may apply. Also included are case examples of how GEMI members have engaged internal and external stakeholders in dialogue and generated actions to promote overall water supply resource management and conservation. Although *Collecting the Drops: A Water Sustainability Planner* is self-standing, facility users are encouraged to review the following GEMI tools for the purpose of understanding the considerations that could be taken into account when evaluating sustainability drivers: *Connecting the Drops Towards Creative Water Strategies: A Water Sustainability Tool*; *Exploring Pathways to a Sustainable Enterprise: SD Planner*[™]; and *Transparency: A Path to Public Trust*.



The user is encouraged to consider and evaluate the overall use of water and the impact of the operations on the regional water supply by using the three Modules of this tool.

- **Module 1 — Facility Water Use and Impact Assessment Program:** includes guidance, examples and programs the facility user can use to: assess the relationship to water by developing a water block flow diagram and performing a water balance; develop an understanding of water use and disposition and; assess quality of the water supply in comparison to water quality requirements of the facility operations. These steps will provide a more comprehensive understanding of the facility's relationship to water.
- **Module 2 — Water Management Risk Assessment Program:** is a questionnaire that includes key questions to assess: a facility's sensitivity to external changes in water supply availability; the probability of water supply and water quality changes; business sensitivity to regulatory or policy changes and the changes due to community development. This module requires input from the user to answer general questions as well as specific vulnerability/risk questions on a sliding scale. Questions have been organized and presented in six risk categories including: watershed; supply reliability; efficiency; compliance; supply economics; and social context. The Risk Assessment Program tabulates the average risk score for each risk category based on the user input. The program also lists the results on a highest to lowest risk basis and provides links to relevant information and case examples provided by GEMI members.
- **Module 3 — Case Examples and Reference Links:** is a database of case examples provided by GEMI members from a wide range of industry sectors on how to manage water wisely. This module includes reference links that provide specific water-related information. The user can search this module to identify case examples that may apply to your facility to improve overall water resource management performance within the facility and in the community. In addition, examples have been provided that outline methods to improve overall water efficiency of specific operating equipment.



Transparency: A Path to Trust

Transparency: A Path to Trust. This tool has been designed to provide approaches that you may consider as your company addresses transparency-related challenges and opportunities. It consists of a six-step process designed to assist in the identification of transparency-related opportunities and risks, determining the business case for action, and engaging your organization in developing and implementing an effective transparency strategy. 2004. 58 pages.

Click here to view the overview presentation of [**GEMI Transparency: A Path to Public Trust**](#)

Corporate transparency has emerged as a focal point of societal expectations. Increasingly, corporations are experiencing pressures from stakeholders to be more transparent about their values, commitments, and performance. In this “show me” world, stakeholders want to know who the company is, what it stands for, where it is going, and whether it is living up to its commitments to society. Companies have learned — at times the hard way — that increasingly their license to operate depends on having the public’s trust. By understanding stakeholders’ expectations for transparency and knowing how to respond effectively to them, companies may be better positioned to reduce risks, enhance their reputation, and increase shareholder value.

Transparency: A Path to Public Trust is the result of a collaborative journey by members of GEMI and others. It began with a series of three GEMI-sponsored workshops held between October 2001 and February 2003. During these workshops participants from nineteen separate nongovernmental organizations (NGOs) and sixteen companies worked together to explore the concept of corporate transparency. The dialogue and debate led to the recognition that there was both a need and an opportunity to help organizations approach transparency using a strategic, systematic process. This tool has been created in recognition of that need. Properly implemented, transparency may drive improvements in corporate governance, stakeholder relations, and performance reporting, all of which can deliver business value by enhancing the credibility and trustworthiness of an organization. Defining a strategic approach and establishing clear goals for transparency can help ensure that this value is delivered at the same time as associated risks are managed.

Transparency: A Path to Public Trust is a tool that can be used to help develop an appropriate approach to transparency for your organization. It consists of a six-step process designed to assist you with identifying transparency-related opportunities and risks, determining the business case for action, and engaging your organization in developing and implementing an effective transparency strategy. Further guidance is provided to help you understand how to employ the key elements of corporate transparency – corporate governance, stakeholder relations, and performance reporting. Case studies demonstrate how several GEMI companies have addressed transparency in their organizations and share the lessons they have learned. Sections on challenges, trends, tools, and references provide additional information and context.

Defining Transparency: GEMI has developed the following definition of corporate transparency: *Transparency is the openness of an organization with regard to sharing information about how it operates. Transparency is enhanced by using a process of two-way, responsive dialogue.*

Building the Business Case for Transparency: In recent years a number of factors have created widespread awareness of and sensitivity to the social and environmental impacts of corporate activities. This awareness has led to increasing societal demands for business to be more responsible, accountable, and transparent. Greater corporate openness is now being recognized as fundamental to an organization’s license to operate. In addition, an appropriate approach to corporate transparency can impact business value in the following ways:

- Contribute to the trustworthiness and credibility of an organization
- Increase effectiveness by improving the organization’s understanding of the potential environmental and social implications of its business activities
- Improve corporate performance by motivating an organization to meet its declared goals.

Transparency by Design: An organization’s approach to transparency should be designed to fit its unique circumstances. Engaging in a strategic planning process is an effective way to decide on the most appropriate approach.

The transparency process -- The fundamental management system process of **Plan-Do-Check-Advance** serves as an effective framework for developing a strategic approach to transparency. These steps outline a useful structure for identifying related business opportunities and risks, determining the business case for action, developing an appropriate strategy, taking action, and measuring and evaluating the results.

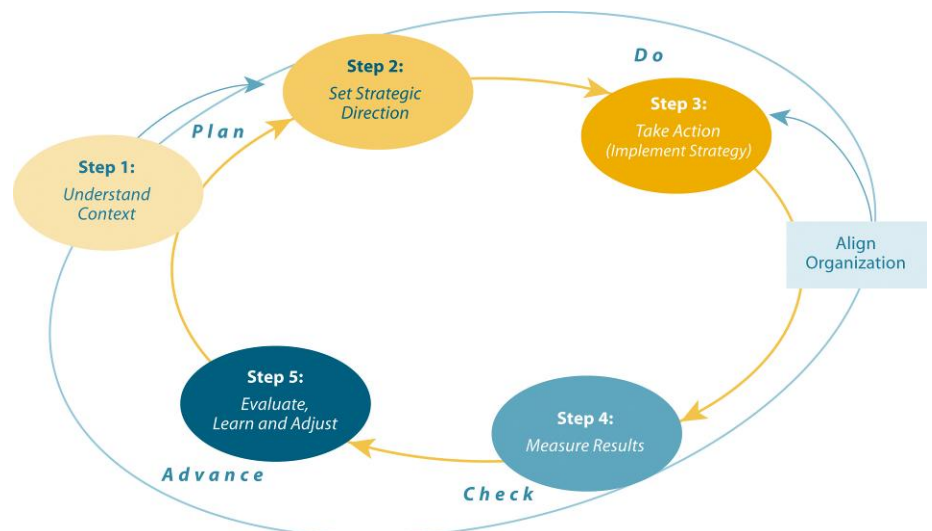
The key elements of transparency -- Leadership and governance, stakeholder relations, and performance reporting have been identified as the three key elements of transparency and are given special consideration throughout this document.

- *Leadership and governance* – It is through leadership and governance that the corporate commitment to transparency is defined and communicated throughout the organization. Leadership establishes expectations and accountability whereas good governance ensures that the commitment is implemented.
- *Stakeholder relations* – Whereas stakeholder demands are a driver for increased transparency, stakeholder relations are a means to becoming transparent. Transparency provides stakeholders with the information they need, which in turn should improve the relationship.
- *Performance reporting* – Elevated stakeholder expectations for transparency are driving companies to adopt beyond-compliance reporting of non-financial performance. Reporting provides a window into the organization and a means to disclose corporate commitments and performance. It can also be a cost-effective method for regularly delivering information to stakeholders in a consistent manner.

Looking Ahead: Challenges and Trends: All indications are that the demand for greater corporate transparency is here to stay. What remains unclear is to what extent transparency will remain voluntary. Organizations that choose to develop a transparency strategy will have to do so in the face of this uncertainty. Striking the right balance will require developing a clear strategic intent. Challenges include:

- Balancing the right-to-know with the need for security
- Attaining the proper trade-off of cost vs. benefit
- Understanding how to provide meaningful information rather than simply more data.

Transparency: A Path to Public Trust is a tool to help navigate these challenges and trends. This tool uses a five-step strategic planning process based on the **Plan-Do-Check-Advance** framework to guide the development and implementation of an effective transparency strategy.





Forging New Links -- Enhancing Supply Chain Value Through Environmental Excellence

Forging New Links -- Enhancing Supply Chain Value Through Environmental Excellence. This tool and web site have been designed to identify and illustrate opportunities for EHS professionals in collaboration with other functions within their companies to enhance supply chain performance. Both the report and the associated web site (www.gemi.org/supplychain) are intended as resources to assist managers in recognizing, prioritizing and pursuing specific value creation opportunities. 2004. 50 pages.

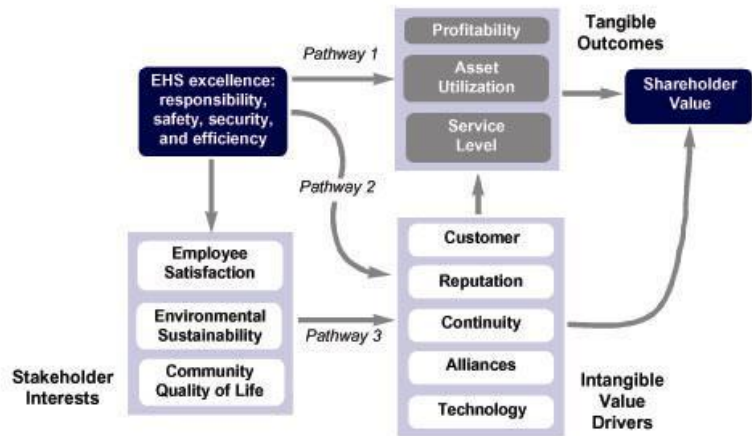
Click here to view the overview presentation of [**Forging New Links -- Enhancing Supply Chain Value Through Environmental Excellence**](#)

The goals of environmental, health and safety (EHS) excellence are no longer confined to compliance and cost avoidance. EHS groups are collaborating with other functions to enhance shareholder value throughout the supply chain — contributing to profitability, resource productivity, innovation and growth.

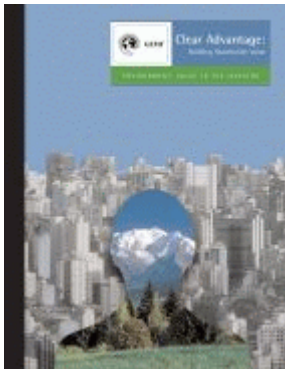
Supply chain management (SCM) is evolving from a traditional focus on purchasing and logistics to a broader, more integrated emphasis on value creation. Leading companies increasingly view supply chain excellence as a source of competitive advantage, with the potential to drive performance improvement in customer retention, revenue generation, cost reduction, and asset utilization. Cross functional teamwork is essential to orchestrate the core SCM business processes — managing relationships with suppliers and customers as well as managing the flow of goods, services, and information along the supply chain.

As the scope and cross-functional integration of SCM increase, there is a growing need for effective EHS capabilities in all supply chain business processes. The emergence of globalization, outsourcing and corporate social responsibility, along with regulatory changes and security concerns, has made EHS excellence a key success factor. Moreover, EHS issues can no longer be addressed in a reactive fashion. Manufacturers are increasingly expected to take responsibility for the disposal of products and packaging at the end of their useful life, so that designing for reverse logistics has become a strategic approach for converting wastes into assets and thus generating shareholder value. Likewise, anticipating safety and security risks and developing contingency plans is critical for assurance of business continuity.

This report provides a comprehensive review of the opportunities for EHS to create business value in the supply chain across a variety of industries. The broadening of EHS scope beyond compliance toward value creation is illustrated by case studies drawn from GEMI member companies. The figure below depicts three main pathways for EHS contributions to supply chain management (SCM) value creation.



The focus of this report is on how EHS excellence contributes to shareholder value creation. Waste reduction, business continuity, resource efficiency and stakeholder satisfaction are intrinsic elements of modern supply chain management. Thus, environmental and social benefits such as pollution prevention can be natural outcomes of supply chain business process improvements.



Clear Advantage: Building Shareholder Value / Environment: Value to the Investor

Clear Advantage: Building Shareholder Value / Environment: Value to the Investor. This tool has been designed to help provide businesses approaches on how to measure, manage and communicate EHS value to the financial community thereby making tangibles out of intangibles. It is designed for senior company executives, including CEOs, CFOs and Investor Relations (IR) professionals, mainstream financial analysts and fund managers and EHS and other company managers. The new tool includes four sections: An Executive Summary of the tool; Making the Case that provides evidence to support the correlation between EHS performance and financial outcomes; A Closer Look that provides ten important EHS-related value drivers and related case studies from GEMI member companies; and From Concept to Practice

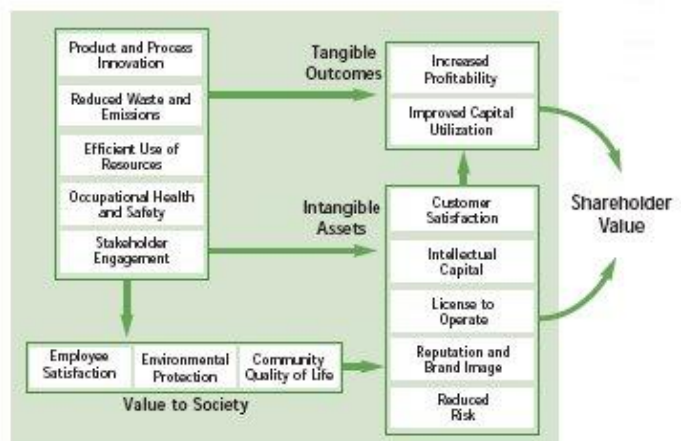
that provides a methodology for EHS and IR colleagues to apply the new knowledge and engage senior executives. 2004. 46 pages.

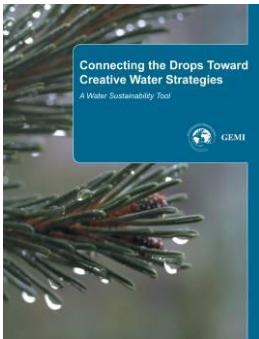
Click here to view the overview presentation of [Clear Advantage: Building Shareholder Value / Environment: Value to the Investor](#)

GEMI has produced a series of tools that demonstrate how excellence in EHS can add shareholder value to companies. The GEMI “Value” journey began with *Environment: Value to Business (EVTB)* published in 1998 and continued with *Environment: Value to the Top Line (EVTL)* published in 2001. The purpose of *Clear Advantage: Building Shareholder Value*, GEMI's latest tool in the series, is to enable businesses to measure, manage and communicate EHS value to the financial community or, in the words of Bob Brady, retired fund manager at Citigroup, to “turn the intangibles into tangibles.” EHS is among the intangible value drivers that are hidden sources of organizational power—from regulatory compliance that prevents liabilities, to proactively managing risk. Leveraging EHS resources can help create additional value for the enterprise through strategy execution, enhancing brand and reputation, boosting innovation and leadership.

This report is a resource and guide containing a variety of data and tools to assist managers in unlocking the value contained in activities they are required to perform but frequently regard as a cost of doing business—rather than as an opportunity to better position the enterprise with customers, investors and lenders, alliance partners and current or prospective employees. Case studies from GEMI members help illustrate these opportunities.

Clear Advantage provides compelling evidence of the link between EHS activities and shareholder value. GEMI created the diagram below, which illustrates the many pathways to shareholder value. Because an enterprise’s EHS function cuts across many areas of business, this report covers the EHS function as well as related organizational activities: community involvement, stakeholder relations, governance, transparency and business continuity. Utilizing the value drivers identified, this report will demonstrate that strengths in EHS can add value to the enterprise. Specifically, this report will show how companies can measure and disclose the strategic contributions of EHS to enhanced market valuation and identify EHS-related indicators that are linked to intangible value drivers. The intended audiences for this tool are senior company executives, including CEOs, CFOs and Investor Relations (IR) professionals; mainstream financial analysts and fund managers; and EHS and other managers. It can also provide members of the socially responsible investment communities with useful data, as well as guidance for EHS executives on how to better advise managements with whom they are engaged.





Connecting the Drops Towards Creative Water Strategies: A Water Sustainability Tool

Connecting the Drops Towards Creative Water Strategies: A Water Sustainability Tool: This tool and website (www.gemi.org/water) is designed to help businesses build a well-tailored water strategy that fits the business' needs and circumstances. Case studies highlight ways that companies can create business value by pursuing the sustainable management of water resources. The tool enables organizations to understand better their relationship to water throughout the value chain, identify opportunities and risks, assess the business case for action, and develop and implement continual improvement-based water strategies. 2002. 52 pages.

Click [here](#) to view the overview presentation of **Connecting the Drops Towards Creative Water Strategies: A Water Sustainability**

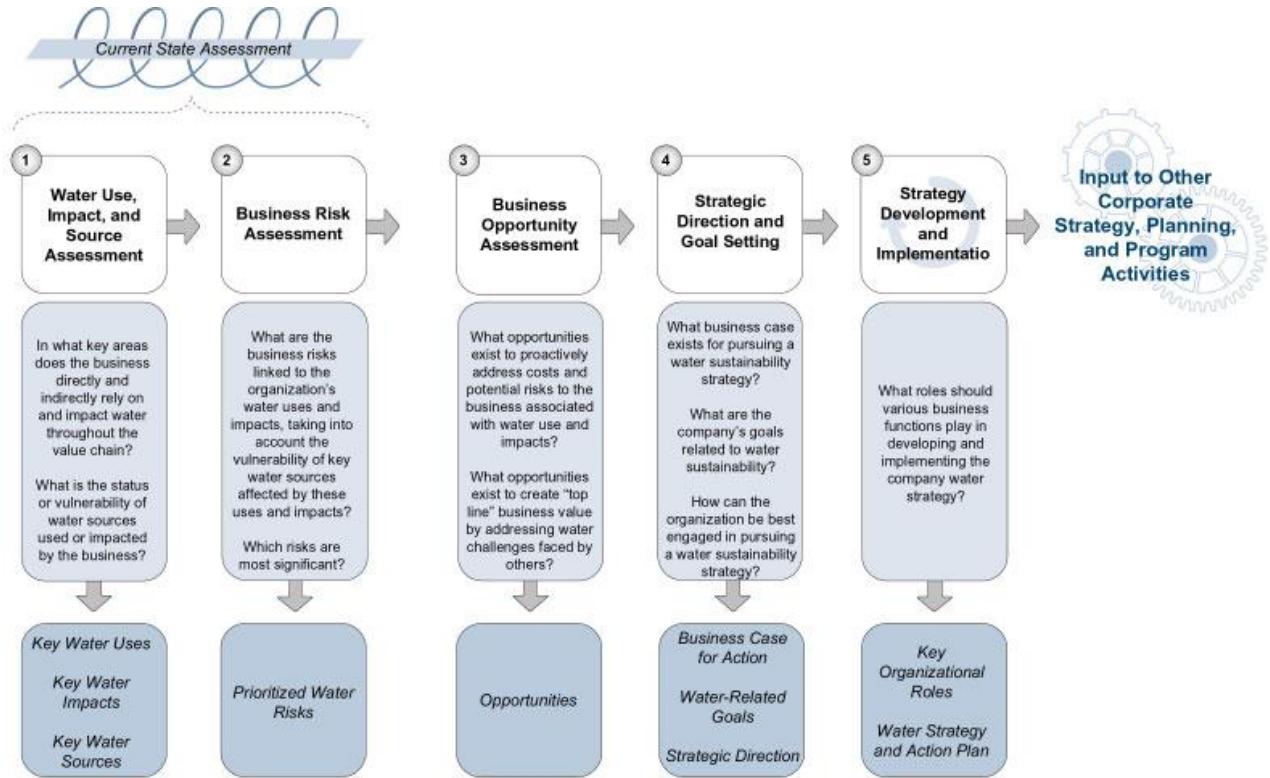
GEMI has developed this analytical process—the Water Sustainability Tool—to assist individual companies and other organizations to better understand what emerging water issues might mean for them, given their operations, needs, and circumstances. The tool is designed to help individual companies build a business water strategy. The tool encourages businesses to:

- Conduct a systematic assessment of their relationship to water
- Identify specific opportunities and risks associated with this relationship
- Assess the business case for action
- Tailor a water strategy that addresses specific needs and circumstances of the organization
- Ensure that water-related opportunities and risks are tracked and managed effectively into the future using a continual improvement framework

The Tool Roadmap GEMI's Water Sustainability Tool contains five core analytical stages, or modules, as described in the figure below. These include:

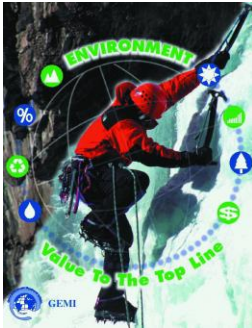
- Module 1: Water Use, Impact, and Source Assessment
- Module 2: Business Risk Assessment
- Module 3: Business Opportunity Assessment
- Module 4: Strategic Direction and Goal Setting
- Module 5: Strategy Development and Implementation.

Each of the five analytical modules includes specific steps that can help answer the key questions associated with each module.



Each of the five analytical modules includes specific steps that can help answer the key questions associated with each module. Each module is supplemented by brief case studies that highlight how companies have approached the analytical steps. GEMI has also prepared a companion website to assist individuals in applying the analytical modules to their own companies or organizations. The website (www.gemi.org/water) includes the full content of this document, plus specific *Web Tool Resources*—key questions, checklists, forms and additional case studies—to support tool users in applying each module. Web Tool Resources are listed under the analytical steps that they support.

Modules are sequenced to assist users in evaluating the business case and developing a strategy to address water challenges. The modules also can be used in an iterative manner. For example, the current state assessment modules (Modules 1 and 2) are designed to enable both a “first pass” assessment as well as a more detailed assessment that could be conducted at a later point. Users are encouraged to adapt this analytical framework to meet their company’s specific needs, taking into account steps that may have already been completed.



Environment: Value to the Top Line (EVTL)

Environment: Value to the Top Line (EVTL): The guidance document has been designed to help identify new processes and ways of thinking about the role of environmental initiatives vis-à-vis broader business objectives. This report includes case studies of companies who have implemented successful projects linking environmental and business objectives. 2001. 70 pages.

Click here to view the overview presentation of [**Environment: Value to the Top Line \(EVTL\)**](#)

Environment: Value to the Top Line builds upon the work of an earlier GEMI primer, *Environment: Value to Business (EVTB)*. The central theme of *EVTB* was the strong connection between environmental activities and business value, the bottom line. Companies have made great strides in finding ways for environmental considerations to deliver operational or bottom line value: reduced operating cost, increased resource efficiency and improved time to market. Top line value or revenue growth was introduced, but explored to a lesser degree. This tool fits well into the growing universe of GEMI reports and publications dedicated to exploring the business value of environmental activities throughout the distribution chain and in connection with a company’s role with respect to society and the environment.

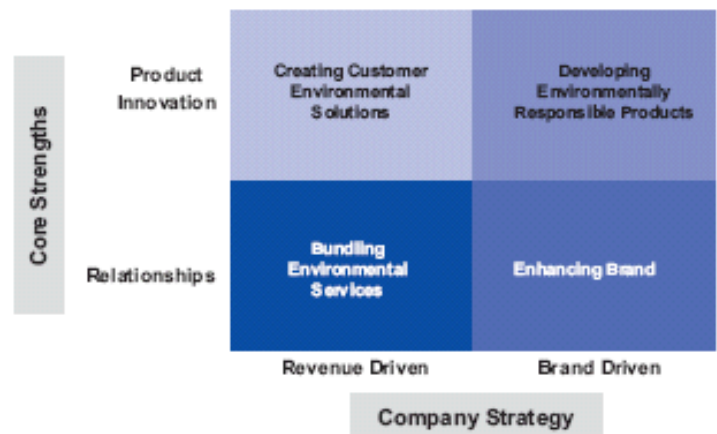
EVTL is intended to provide inspiration and ideas for senior managers, including product and business development managers, business process owners, regional managers, environmental managers, investor relations staff and senior executives.

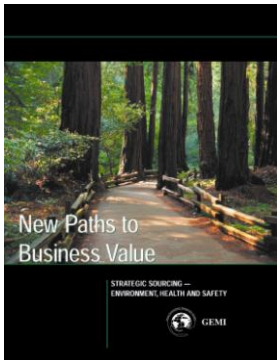
The term “top line” refers to what is represented by the top line of an operating or income statement: sales. The Top Line Framework explores the implications of these two dimensions—core strengths and company strategy—for delivering environmental top line value. For purposes of this document, top line value will consist of the following elements:

revenues or sales; market share growth; share price; and enhanced brand. The tool consists of five chapters as outlined below:

- Chapter 1 deals with companies whose strategy is to realize immediate revenue gains and whose core strength is product innovation. These companies are inclined to develop products that solve their customers’ environmental problems by either lowering customer environmental costs or increasing customer environmental benefits.
- Chapter 2 deals with companies whose strategy is to grow market share through promotion of brand image and whose strength is in product innovation. These companies tend to develop environmentally responsible products—products or services that are produced with, or whose use involves, less environmental impact than those of competitors.
- Chapter 3 deals with companies whose strategy is brand driven and whose strength is in customer and other stakeholder relationships. These companies tend to promote environmental initiatives as a way of enhancing their brand.
- Chapter 4 deals with companies whose strategy is immediate revenue driven and whose strength is in relationships. These companies tend to find ways to bundle environmental services with their products, or replace products with services, as a way to provide the best total solution to customers.
- Chapter 5 sets forth steps for companies to consider as they move ahead with initiatives to realize environmental top line value.

Top Line Framework





New Paths to Business Value: Strategic Sourcing—Environment, Health and Safety

New Paths to Business Value: Strategic Sourcing—Environment, Health and Safety: This guidance document has been designed to address the business value of managing Environment, Health and Safety (EHS) in Procurement. It is designed to help identify when, why and how to pursue added business value by addressing the EHS performance of suppliers and contractors, and understand how their products and services might affect your business. 2001. 70 pages.

Click here to view the overview presentation of [**New Paths to Business Value: Strategic Sourcing**](#)

New Paths to Business Value: Strategic Sourcing—Environment, Health and Safety covers five topics related to business value, and the ways strategic sourcing can enhance it by improving the environment, health and safety (EHS) performance of products and suppliers. It also includes case studies detailing how different companies from a wide range of business sectors manage this integration and derive business value from it.

This document illustrates how business value can be enhanced by adept management of EHS issues in the supply chain; encourages a selective approach that is appropriate for each unique company and for different types of suppliers and supplier relationships; provides practical resource for procurement staff, helping them understand and pursue business value opportunities that might otherwise be missed; encourages dialogue and effective collaboration between procurement and EHS departments; and steers companies toward practices that add business value.

Topics (chapters) and case studies have been chosen to help you identify and pursue selected business value opportunities, with selected suppliers, using appropriate procurement tools as described in the table. While the topics are complementary, each topic section has been composed as a stand-alone resource and is organized to answer a question. While Topic One does provide an introduction, the remaining topics are not written to be read in any particular order.

- Topic One: Is EHS an important source of business value in my supply chain?
- Topic Two: How do I find untapped business value in my supply chain?
- Topic Three: How can I use EHS criteria to add business value?
- Topic Four: How can I assess and improve supplier EHS performance?
- Topic Five: How can I improve EHS performance through outsourcing?

WAYS PROCUREMENT CAN ADD BUSINESS VALUE BY IMPROVING EHS PERFORMANCE, AND WHERE TO FIND THEM IN THIS DOCUMENT

	Topic				
	1	2	3	4	5
● Denotes major coverage ⊙ Denotes minor coverage					
Adding supplier knowledge to product and process design decisions	⊙	⊙	⊙		⊙
Identifying new value options	⊙	●	⊙		●
Integrating supply chain criteria and planning across multiple departments	⊙		⊙		
Developing optimum specifications for inputs	⊙	⊙	●		
Selecting products, services, and suppliers with the best total value (quality and price)	⊙	⊙	⊙	●	●
Optimizing delivery schedules and in-coming logistics	⊙		⊙		
Assessing and improving supplier processes	⊙		⊙	⊙	
Assessing and strengthening supplier management	⊙		⊙	●	
Facilitating communication with collaborating suppliers	⊙		⊙	●	●

The Appendix includes recommended resources, a glossary and a table summarizing the contributions that other corporate departments can make to a cost-effective supply chain management effort.

Because this document intentionally emphasizes certain procurement challenges and opportunities, it does not provide even or complete coverage of all procurement tools or all ways that procurement can add value with regard to EHS performance. Redesign of products and processes (Design for Environment, or DfE) – often the most valuable way to improve EHS performance – has been left for another work group to explore. The importance of whole-system optimization in supply chain decisions, which requires an integrated multi-departmental planning effort, has been outlined but not explored in depth.



Environmental Improvement Through Business Incentives

Environmental Improvement Through Business Incentives: This report assesses incentives that have worked in government and in the private sector to encourage companies to go beyond compliance. The report includes tables of environmental objectives that might be achieved through the use of incentives, and provides a menu of incentives that could help achieve those objectives. 1999. 39 pages.

Environmental Improvement Through Business Incentives contains 2 tables of environmental objectives. The first of these tables identifies and summarizes several environmental objectives that can be advanced through the use of incentives. The second table identifies and summarizes several options for voluntary environmental incentives. Both of the tables are intended to give policymakers ideas on the type of incentive mechanisms that can be deployed and the type of environmental improvements that can be achieved through the use of such incentives.

In order to achieve the desired result, an incentive must match a business' needs (or those of other regulated entities, such as a publicly owned treatment works). Because the needs of businesses vary, it is crucial that there be a variety of incentives available. For some types of businesses, speed to market is critical. For example, they need a way to avoid the delays associated with environmental administrative processes. Others may be most driven by costs and need a way to achieve savings. In cyclical businesses, an incentive that is not attractive at one point in the business cycle may well be attractive at a later date. Smaller businesses may need different incentives than large companies. The key point is that a wide range of incentives is needed to address the incredible variety of industries and even companies within industries that are affected by today's sweeping environmental rules.

The development and implementation of many types of incentive options will both need and benefit from the active involvement of a broad spectrum of stakeholders. In particular, those incentive options that modify existing regulatory requirements for a company or facility will necessarily demand such stakeholder participation. This report focuses specifically on addressing community or stakeholder involvement in describing potential incentives options. However, we assume that transparency in process and genuine opportunities for stakeholder involvement are givens in any incentive program.

The "Environmental Benefits Through the Use of Incentives" table identifies several environmental program objectives that can be achieved through the use of incentives. These program objectives range from encouraging the reduction in specified pollutants to improving the deployment of program resources within an environmental regulatory program. Note that it will always be up to the governmental decision-maker (with input from stakeholders of all kinds) to decide the amount of program benefit that is needed to balance the benefit to the company receiving an incentive. As with companies, different programs, different areas or different times may change this balance. In some cases, a regulator may want to use incentives to address the most pressing problems (e.g., air, water) in the area in question. In other cases, freeing up enforcement or permitting resources to be used in more productive activities may be a critical consideration. How much of a given benefit the agency (or the environment) must receive to warrant granting a given incentive will be very much a case-by-case determination.

The "Environmental Incentive Options" table provides a listing of various incentive options. Once again, it is important to bear in mind that a menu of incentives is needed to address the wide variety of businesses (or other regulated entities) with their varying and changing needs. Incentive options are divided into five categories: permit incentives; product review and approval incentives; other regulatory incentives; tax incentives; and capital incentives.

For each incentive option information is provided on who would grant or enact the incentive and if and how such an incentive mechanism is being used today. It is important to note that these options are not necessarily mutually exclusive. For example, a permit incentive program might include automatic permit extensions, expedited review time and consolidation.



Fostering Environmental Prosperity, Multinationals in Developing Countries

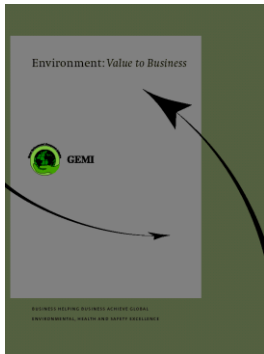
Fostering Environmental Prosperity, Multinationals in Developing Countries: This report for the first time links economic data with case studies to show that multinational corporations are positive forces for both economic development and environmental, health and safety excellence in the developing countries in which they operate. 1999. 30 pages.

Multinational corporations (or MNCs) – those that are headquartered in a home country and operate in many countries around the world – account for a large and growing share of business across the globe. The economic data and case studies in the following report similarly show how MNCs positively influence industry’s environmental health and safety performance in developing countries. Leading MNCs clearly hold themselves to a much higher environmental, health and safety standards than those of their indigenous competitors. It also stands to reason that indigenous companies can be forced by competition with MNCs to improve their environmental health and safety performance.

In *Fostering Environmental Prosperity, Multinationals in Developing Countries*, two types of evidence – analytical and anecdotal – are presented in this report to support the fact that MNCs foster economic prosperity and improved environmental performance. The first evidence consists of analytical data on the important role that investment by MNCs plays in foreign direct investment in developing countries, the many respects in which MNC investment lifts local economies, and – importantly – the superior environmental performance of MNCs when compared to that of indigenous firms.

The evidence includes a unique, comprehensive data set from factory-level World Bank data that shows MNCs in developing countries outperform all other firms on environmental grounds. In addition to this statistical analysis of MNCs’ environmental, health and safety performance, this report also presents a series of anecdotal studies of operations of GEMI-member companies in developing countries. The case studies, reporting on both those companies that are new to international markets (at the time of this publication) and those with long international experience, point to the dramatic positive effects that MNCs have in developing countries.

Coupled with the rapidly accumulating statistical evidence demonstrating the superior environmental, health and safety performance and positive economic contributions of MNCs in developing countries, the examples outlined in this report lead to an inescapable conclusion: Once one recognizes that economic development inevitably will take place in these countries, it becomes clear that it is to developing nations’ distinct economic and environmental advantage to foster environmental prosperity by orienting their policies to attract MNCs.



Environment: Value to Business (EVTB)

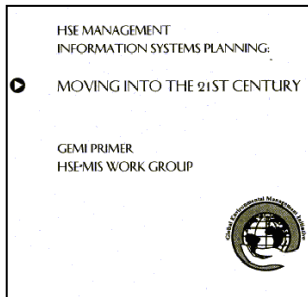
Environment: Value to Business: *The goal of this primer is to guide corporate environmental professionals in planning, creating, measuring and communicating the business value of environmental activities. The primer is divided into four chapters - one for each stage in the Plan-Do-Check-Advance cycle of environmental management. By providing ideas, tips and examples from both GEMI and non-GEMI companies, this primer offers suggestions for communicating to key stakeholders internal and external to their organizational environment's value to business. 1998. 52 pages.*

Companies around the world are adding value to their corporations' bottom lines in ways that could not have been imagined a few years ago. More and more companies are discovering that proactive environmental programs make significant contributions to profitability and competitiveness. In addition to reducing risk and avoiding costs from regulatory compliance programs, benefits are flowing from environmental initiatives that spur process innovation, increase worker productivity and morale, enhance brand image, streamline time-to-market, improve relations with regulators and local communities, and open new market opportunities. Professional environmental managers are key contributors to a company's overall strategic business success. Environmental professionals in today's companies share a unique vantage point. They address challenges that cut across all aspects of the business, from the plant floor to the boardroom. They are in an excellent position to identify problems and opportunities, and to broker information and innovative solutions. Yet in order to add real value, environmental professionals must be "plugged into" main-line business. It is important for business managers to understand the ways environmental activities can add business value. *Environment: Value to Business* is about focusing on this need for integration and communication and ways to achieve it.

Environment: Value to Business provides a valuable tool kit for corporate environmental organizations and professionals, the ideas, examples, and case studies found in these pages will be of interest to a wider audience. GEMI hopes this primer will strengthen the growing discussion in business, financial and environmental circles about the value of corporate environmental activities and the links between environmental and business performance.

While *Environment: Value to Business* explores tools and techniques that corporate environmental professionals can use to plan, create measure and communicate the business value of environmental activities, we believe that these ideas will be of interest to a much broader audience. In particular, business leaders and members of the financial community will find compelling examples of ways corporate environmental activities can contribute to profitability and competitiveness. In addition, the concepts addressed in this primer are directly relevant to corporate health and safety activities. *Environment: Value to Business* is divided into four chapters—one for each stage of the Plan-Do-Check- Advance (PDCA) cycle of environmental management. Total Quality Environmental Management (TQEM), ISO 14001 and other environmental management system approaches are all founded in this iterative process focused on continuous learning and improvement-making PDCA a useful framework for presenting the *Environment: Value to Business* (EVTB) concepts and tools. Ideally, efforts to plan, create, measure and communicate the value of environmental activities will be seamlessly integrated into corporate environmental management systems.

It is understood that readers may be at different points in the PDCA process. *Environment: Value to Business* is designed to facilitate quick navigation; and each chapter provides useful tips and tools, key questions, and case studies. Of course, not all EVTB concepts and tools fit neatly into the "bins" of the PDCA framework. We have endeavored to denote some of these important links between chapters--where tools presented in one chapter can also be used in another stage of the PDCA process.

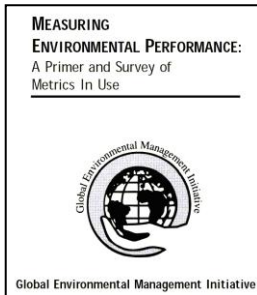


HSE Management, Information Systems Planning, Moving Into the 21st Century

HSE Management, Information Systems Planning, Moving Into the 21st Century: This primer is designed to help Health, Safety and Environmental (HSE) managers reach new levels of performance by partnering their expertise with that of Management Information Systems (MIS) professionals and Manufacturing & Operations, Marketing, Research & Development, Finance and Legal experts across the country. The overall goal of this Primer is to provide HSE managers some insight on eliminating information silos, integrating their work with the rest of the enterprise, and, as a result, improving corporate performance. 1997. 32 pages.

Accomplishing HSE goals requires a well prepared plan of action. *HSE Management, Information Systems Planning, Moving Into the 21st Century* focuses on the necessary planning cycle, beginning with a strategic business plan and ending with an HSE Management Information Systems Implementation Plan. This approach, the HSE Business-Driven Systems Planning Model, is introduced in Chapter 1. The model forms the foundation of this Primer, inviting the reader to explore one method that provides concrete direction to the topic of HSE information management. This Primer is designed to help HSE managers reach new levels of performance by partnering their expertise with that of Management Information Systems (MIS) professionals and Manufacturing & Operations, Marketing, Research & Development, Finance and Legal experts across the company. The overall goal of this Primer is to provide HSE managers some insight on eliminating information silos, integrating their work with the rest of the enterprise, and, as a result, improving corporate performance.

- Chapter 1 introduces the HSE Business-Driven Systems Planning Model.
- Chapters 2-7 detail each of the six phases of the Planning Model.
- Chapter 8 provides insight on the model as a whole: benefit measurement and the planning model as a continuous process.
- The Conclusion provides some practical advice about the planning process.



Measuring Environmental Performance: A Primer and Survey of Metrics in Use

Measuring Environmental Performance: A Primer and Survey of Metrics in Use:

This primer is designed to present a survey of environmental performance measurement tools, or metrics, and includes considerations for designing a metrics program and selecting appropriate metrics. The primer also examines implementing, evaluating and improving such a program. 1997. 60 pages.

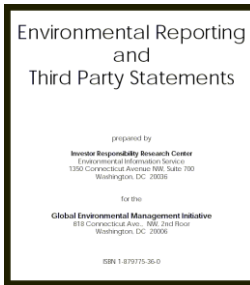
Selecting meaningful and effective tools for measuring environmental performance is becoming increasingly important due to the increasing costs of environmental operations; market, regulatory and public pressures; voluntary initiatives, such as the International Chamber of Commerce (ICC) Business Principles for Sustainable Development; and international standards, such as the International Organization for Standardization (ISO) 14001.

Metrics can measure the business value of environmental programs or progress as well as the environmental performance of business operations. This can be particularly effective in demonstrating the value of environmental efforts to management. It can also provide data with which business units can design more efficient processes, decreasing material usage and environmental impacts while at the same time increasing yield and profitability.

During early 1996, the GEMI Metrics Work Group surveyed members on their environmental performance measurement systems. The survey revealed a variety of metrics in use by member companies and interest in improving tools for measuring environmental performance. As a result, GEMI decided that a primer discussing the considerations for designing a metrics program and a compilation of indicators would be a helpful aid to GEMI and non-GEMI companies.

The purpose of *Measuring Environmental Performance: A Primer and Survey of Metrics in Use* is to present a survey of environmental performance measurement tools (or "metrics") and present considerations for designing a metrics program; selecting appropriate metrics; and for implementing, evaluating and improving such a program. This Primer is directed to large companies wishing to compare or improve their programs, as well as smaller companies seeking to establish a program for the first time. Because a metrics program must be responsive to industry and company-specific cultures and concerns, this primer does not present a recommended program to be used by any company. Instead, it identifies the considerations that a company should address, suggests a process for developing an effective metrics program, and provides case studies (examples) in order to assist companies and organizations in developing or enhancing their systems.

The first chapter is a survey of metrics for measuring environmental performance that are currently in use. Key concepts are defined and explained, and the advantages and limitations of various metrics are discussed. Chapter 2 presents considerations for selecting, designing, implementing, evaluating and improving a metrics program. The chapter is divided into four sections that parallel the Plan-Do-Check-Act (PDCA) cycle format, presented in the 1992 GEMI *Total Quality Environmental Management Primer*, forms the basis for total quality environmental management. Chapter 3 presents a brief discussion of emerging trends in environmental performance measurement. The appendices contain studies of some exemplary GEMI and non-GEMI metrics programs.



Environmental Reporting and Third Party Statements

Environmental Reporting and Third Party Statements: *The primary objective of this study was to test whether third party attestation statements contained in voluntary corporate environmental reports added value in the eyes of external stakeholders. Other goals of the study included assessing which report elements contributed the most to communicating credibility, and the credibility of different types of organizations that perform certifications of corporate environmental reports. 1996. 43 pages.*

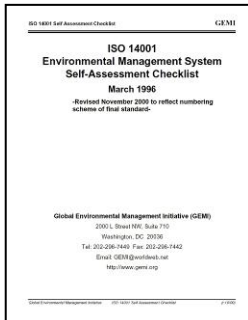
Voluntary environmental reporting follows from implementation of business initiatives such as the Public Environmental Reporting Initiative (PERI), Responsible Care®, the Coalition for Environmentally Responsible Economies (CERES) and the International Chamber of Commerce (ICC) Business Charter for Sustainable Development. To enhance the credibility of these reports, an increasing number of firms have commissioned statements by third parties such as accounting or environmental consulting firms. Many corporations are evaluating the use of third party statements as a component of their International Organization for Standardization (ISO) reporting or Eco-Management and Audit Scheme (EMAS) audit processes.

Environmental Reporting & Third Party Statement represents a systematic attempt to assess the value of published third-party statements *to key stakeholder groups* as well as the value of other elements of a voluntary environmental report. This study reflects a growing effort to assess the value that is generated by various corporate environmental initiatives.

Five focus groups were conducted in 1995 with environmental groups, institutional investors, regulators, the media, and corporate environmental staff. None of the stakeholder groups that participated in this study believed that recent third party statements added much, if any, incremental value to corporate environmental reports published in 1994. The third party statements consistently received lower importance ratings in comparison with other elements of corporate environmental reports. These findings were consistent for investors, environmental advocacy groups, the media, government regulators and corporate representatives. Many respondents in each of the focus groups said that third party statements had the potential to add incremental value to future corporate environmental reports.

The primary objective of the study was to test whether third-party attestation statements contained involuntary corporate environmental reports added value in the eyes of external stakeholders. A structured survey was administered to representatives of five key stakeholder groups to permit systematic analysis of their responses. A copy of the survey is provided in Appendix A. The notion of adding value was assessed by comparing the quantitative responses of focus group participants to a series of questions about different report features and information channels. The second goal of the study was to assess which report elements contributed the most to communicating credibility, whether the answer was third party attestation or some other feature(s). This component of the study yielded numerous insights into what external stakeholders value most. Differences between group preferences were also explored.

The final goal of the study was to assess the credibility of different types of organizations to perform certifications of corporate environmental reports. Unlike regular annual reports, which in the United States are invariably attested to by an accounting firm, third-party attestation statements in corporate environmental reports have been presented by management consultants, environmental engineering firms, environmental strategy consultancies and nonprofit organizations.



ISO 14001 Environmental Management System Self-Assessment Checklist

ISO 14001 Environmental Management System Self-Assessment Checklist: This checklist is based on the ISO 14001 Standard and allows for a rapid self-assessment of an organization or facility to determine how closely existing management practices and procedures correspond to the elements of the standard. In addition to a brief guide to self-scoring, an in-depth description of what is required by the standard's criteria is included in the appendix. 1996. 54 pages.

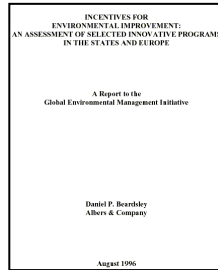
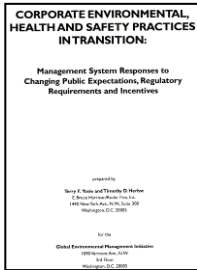
The *ISO 14001 Environmental Management System Self-Assessment Checklist* has been developed to improve facility managers' understanding of the requirements and elements of the environmental management system outlined in the ISO 14001 draft international standard. It is designed to allow for a rapid self-assessment of an organization or facility to determine how closely existing management practices and procedures correspond to the elements of the standard. The criteria of the draft standard have been rephrased in the format of a simple questionnaire, with a three-part scoring system, as explained in this document. In addition to a brief guide to self-scoring, a fuller description of what is required by the standard's criteria is included in the appendix. In this format, even with limited background knowledge of the ISO 14001 standard, a facility or other business manager can quickly review existing operations to determine how they measure up to the standard. This in turn can serve as the starting point of a "gap analysis" to identify management tools or system elements that might usefully be implemented in the organization to help improve overall environmental performance.

The *ISO 14001 Environmental Management System Self-Assessment Checklist* contains a total of 31 questions in five different sections, corresponding to the five guiding principles listed in the ISO 14004 standard, to identify to what extent your environmental management system is complete in comparison to the requirements set in the ISO 14001 standard.

To facilitate answering the questions, there is a table beneath each question with three columns of examples. Each column corresponds to a score: "0": a situation which does not comply at all with the requirement; "1": a situation where the requirement is more or less fulfilled, but where there is still room for improvement and a score "1" applies; and "2" a situation in which the requirement appears to be completely fulfilled. It is possible to calculate a score by using one of two methods. In the first method, you should begin with the first column to determine if the situation described therein accurately reflects the situation in your organization or facility. If not, then proceed to the second column and make the same decision. Eventually, move on to the third column and ask the same questions. In this way, you "build" progressively on your score.

A perfect score of "62" (i.e., every question received a score of 2) would, if responded to thoroughly and honestly, indicate that the organization has all of the requisite EMS elements and procedures called for in the draft standard, sufficiently implemented to adhere to the standard. A score of "0" would likely seldom, if ever, occur, since even the most rudimentary elements of mere legal compliance would normally oblige the use of a minimum of management practices. It is important to bear in mind that how well an organization implements the standard's requirements is not the level of performance achieved using the standard, but the completeness and adequacy of the procedures and systems established to achieve that performance. For ease of interpreting scores, we have broken down the standard into its principle elements and have established a rating system based on three ranges of possible score for each. A high score in any section is not necessarily a sign that the requirement is essentially met, if the core key criteria in that section are not met. Moreover, because all principles and elements are closely interlinked, a low score in any given section could place in doubt the higher scores achieved elsewhere. On the other hand, scoring at least 1 or 2 in each question should give the organization the confidence that its management approaches are compatible with the EMS as described in ISO 14001.

Incentives, Disincentives, Environmental Performance and Accountability for the 21st Century, IDEA 21 Reports:



In April 1996, GEMI's Incentives, Disincentives, Environmental Performance and Accountability for the 21st Century, (IDEA 21) Work Group sponsored 3 independent, yet related research projects to better define and characterize incentives leading to improved environmental performance by business. GEMI supports and encourages full stakeholder review and consideration of these analyses. The 3 reports are:

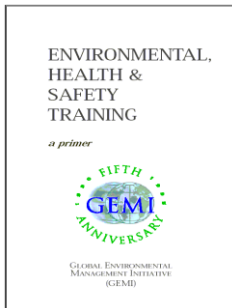
- ***IDE-001: Corporate Environmental, Health and Safety Practices in Transition: Management System Responses to Changing Public Expectations, Regulatory Requirements and Incentives*** by Terry Yosie and Timothy Herbst, E. Bruce Harrison/Rudder Finn: This report examined corporate attitudes about the environment, changes in environmental behavior, and corporate responses to incentive-based health and safety programs.
- ***IDE-002: Industry Incentives for Environmental Improvement: Evaluation of U.S. Federal Initiatives*** by Terry Davies and Jan Mazurek, Resources for the Future: This report reviewed five major environmental and safety programs managed at the federal level of the United States (Project XL, the Common Sense Initiative, the sulphur dioxide emissions trading program, the OSHA STAR program, and the 33/50 Program).
- ***IDE-003: Incentives for Environmental Improvement: An Assessment of Selected Innovative Programs in the States and Europe*** by Daniel P. Beardsley, Albers & Co.: This report assessed selected new environmental programs in Western Europe (the Netherlands, Sweden, and the United Kingdom) and programs managed by American states (Minnesota, New Jersey, Massachusetts, and Colorado).

GEMI had several purposes in funding this research:

- To identify incentives which seem most promising in terms of encouraging the private sector to get to the next level of environmental protection. To achieve this aim, incentives would have to be strong enough to influence corporate behavior and would have to lead to measurable environmental benefits.
- To determine the extent to which recent innovative programs launched by the federal government, the states, and European countries have demonstrated the utility of incentive-based programs; and
- To make available findings of this research to appropriate decision makers.

GEMI's premise is that well-structured incentive programs can be very effective in advancing environmental objectives and making pollution control more efficient for the private sector. GEMI also believes that incentive-based programs have tremendous promise for advancing continuous improvement and total quality environmental management in corporate programs.

The three studies were developed during a five-month period. Relatively little quantitative data exists which documents either explicit economic or other benefits of voluntary programs to the private sector or environmental accomplishments--due in large part to the recent initiation of the environmental programs reviewed, though also to the limited public and private commitment to program evaluation. Researchers relied on data that was available as well as extensive literature reviews and interviews with program designers and participants. The three reports summarize the findings using the following format: 1) factors which appear crucial to voluntary program success or failure; 2) conclusions about the future use of incentives; and 3) other conclusions.



Environmental, Health & Safety Training: A Primer

Environmental, Health & Safety Training: A Primer: Assists companies in training their site Environmental, Health and Safety (EH&S) personnel. A guidance document for anyone involved in the development of such training. Includes practical how-to examples, and several advanced training techniques are included. 1995. 45 pages.

This Primer presents techniques for training site personnel on EH&S issues. The primer has been developed as an introductory tool to assist training staff in developing and implementing successful, value-added EH&S training sessions.

Environmental, Health & Safety Training is an introductory tool designed to assist companies in their training efforts for site EH&S personnel. It is a guidance document for anyone involved in the development of such training. The intent of this Primer is to divide the complex elements of EH&S training into simple, usable approaches that leading companies are successfully applying today. It primarily focuses on what is needed for a successful EH&S training program, including practical “how-to” examples. Several advanced training techniques are also included.

A key premise of this Primer is that the training professional has a lot to offer EH&S professionals and site personnel on this subject. Just as it is critical that line management obtain EH&S technical input for major projects, EH&S training programs should include input from training professionals. Such input will help ensure that all training is user friendly and clearly focused on performance objectives.

Value-added EH&S training requires a clear commitment to Total Quality Environmental Management (TQEM) principles by site management, skilled trainers and willing and able trainees. While many companies apply some of the elements described in this training primer, few, if any, have put all of these elements together. As a result, improving EH&S training is a major challenge for any company that desires continuous improvement of EH&S performance. The process for developing an effective training program is similar to the Total Quality action plan process. This continual improvement process can be represented graphically using the PDCA cycle illustrated on the following page. PDCA is an acronym for Plan, Do, Check, and Act.

The tool contains 8 chapters, with the Chapter 1 as the introduction. The remaining Chapters of this Primer cover the following:

- **Chapter 2:** Employee Training and Performance Technology -- describes the critical linkage between training and improved performance
- **Chapter 3:** Management of EH&S Training -- presents the elements of a leadership approach for managing complex EH&S training needs.
- **Chapter 4:** EH&S Awareness for All Site Employees -- describes how to provide EH&S awareness for all site employees
- **Chapter 5:** Training for Site EH&S Professionals -- describes an effective approach to ensure that site EH&S leaders possess the minimum skills required to perform their jobs.
- **Chapter 6:** Training for Site Personnel on the Floor -- describes an approach to ensure operators and/or technicians have the EH&S knowledge specifically needed for their work areas.
- **Chapter 7:** Training Methodologies -- describes many training techniques ranging from one-on-one to self-training to computer-based training systems.
- **Chapter 8:** Best Practices and Advanced Techniques -- describes advanced training approaches used by GEMI member companies.



Benchmarking for Continuous Environmental Improvement

Benchmarking for Continuous Environmental Improvement: *Expands on basics of the TQEM primer and introduces a TQEM tool. Provides a format and structure for conducting a benchmarking study. Designed to teach the reader how to make environmental improvements based on existing or publicly available information and resources. 1994. 49 pages. Item No. BEN-104*

Benchmarking for Continuous Environmental Improvement is a second in a series, the first being Total Quality Environmental Management (TQEM): The Primer (1993), expands upon GEMI's first effort and introduces a useful (TQEM) tool. This primer provides a format and structure for conducting a benchmarking study. In addition, it demonstrates to environmental managers and others that benchmarking is an important component of TQEM. Finally, its readers will learn that the inherent nature of benchmarking makes it a useful process for identifying environmental improvements, setting priorities among them, and making one's own company as successful as others.

This primer was developed to teach the reader how to make environmental improvements based on existing or publicly available information and resources. The primer will serve as a road map for conducting a benchmarking study so that members of company's benchmarking team will understand what is expected of them and how to meet effectively the objectives of the benchmarking study.

The first section of the primer provides a definition of benchmarking – a process of comparing and measuring an organization's business processes against best-in-class operations to inspire improvement in the organization's performance – and how it may be used for continuous environmental improvement. In addition, some expected results of benchmarking are described followed by examples of how these results have led to the implementation of improvement programs in companies.

The second section is the heart of the primer and provides a step-by-step process for conducting a benchmark study. Each step in the process is preceded by a "key tasks" section to enable the reader to quickly scan the primer for the critical elements of the benchmarking process.

The third section contains relevant case studies contributed by GEMI members and a description of the relationship between benchmarking and TQEM.

FINDING
COST-EFFECTIVE
POLLUTION
PREVENTION
INITIATIVES:
Incorporating
Environmental Costs
Into Business
Decision Making
a primer

GLOBAL ENVIRONMENTAL
MANAGEMENT INITIATIVE
(GEMI)

Finding Cost-Effective Pollution Prevention Initiatives: Incorporating Environmental Costs into Business Decision Making

Finding Cost-Effective Pollution Prevention Initiatives: Incorporating Environmental Costs into Business Decision Making: Designed to help the international business community find cost-effective pollution prevention initiatives by incorporating environmental costs into the business decision-making process. Topics include identification and quantification of environmental costs, and evaluating pollution prevention investments. 1994. 34 pages.

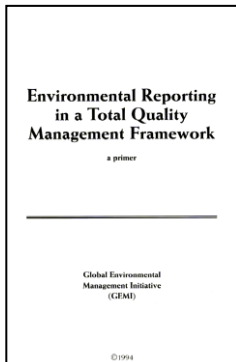
Finding Cost-Effective Pollution Prevention Initiatives: Incorporating Environmental Costs into Business Decision Making is intended to help the international business community find cost-effective pollution prevention initiatives by incorporating environmental costs into the business decision-making process. The resulting improved decision making reinforces the Total Quality Environmental Management (TQEM) principles advocated by GEMI. This is accomplished by improving a company's decisions on sustainable pollution prevention initiatives and other investment options by appropriately including environmental costs and savings for each option. Many parties with environmental responsibilities are turning to so-called environmental cost accounting approaches to improve their decision making. In fact, the U.S. government's National Performance Review has recommended that all government agencies performing a capital budgeting analysis of potential investments should include environmental cost information for each option.

In this primer, a process is described for evaluating sustainable pollution prevention initiatives and other investment options by appropriately including environmental costs and savings for each option. The primer is intended to help a broad audience of diverse professionals to improve their decision making using more comprehensive cost information.

The approach described in this primer can be applied to all investment alternatives to allow a true and fair economic comparison of potential projects. Historically, capital budgeting evaluations often did not include all environmental costs and savings. Consequently, capital budgeting decisions may have prematurely dismissed pollution prevention projects even though those projects contained considerable environmental cost savings that were frequently overlooked. The importance of considering environmental costs in evaluating all alternatives, not just pollution prevention projects, is an implicit assumption throughout this primer. The primer is meant to raise the economic valuation of pollution prevention projects to a level that is equal to, not greater than, other alternative investments. Evaluating pollution prevention projects on a basis equal to that of other investments allows pollution prevention projects to justly compete for investment dollars.

The specifics of this cost evaluation approach are explored in the balance of this primer:

- Chapter 2 provides a simple description of the process and the definitions of useful terms;
- Chapter 3 discusses an approach to identify environmental costs that a manager must quantify and allocate across appropriate business functions and/or activities;
- Chapter 4 describes an approach for evaluating projects by incorporating environmental costs in standard financial assessment tools; and
- Chapter 5 discusses key components needed to ensure use of this approach and how the approach can be institutionalized.



Environmental Reporting in a Total Quality Management Framework: A Primer

Environmental Reporting in a Total Quality Management Framework: A Primer relates Total Quality Environmental Management (TQEM) to environmental measurement and reporting, helping companies identify problems before they occur, target key areas for management attention and possible expenses, provide support for needed improvements in existing management systems, and provide a realistic basis for setting future performance expectations and holding line managers accountable. 1994. 40 pages.

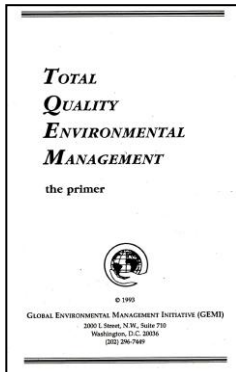
At the June 1993 GEMI annual meeting, GEMI formally recognized the importance of accurate corporate environmental reporting and established a special work group to study this critical issue. In turn, the work group determined that an environmental reporting project was a necessary component of the group's overall strategic plan.

GEMI was an early support of the 16 principles of set forth by the International Chamber of Commerce (ICC) in its Business Charter for Sustainable Development. Principle 16 focused directly on environmental reporting. The ICC Charter clearly recognizes what many companies continue to discover on their own: measurement and reporting are fundamental components of sound environmental management – and that the internal reporting of environmental progress and compliance is inextricably intertwined with the development of environmental performance reports for various external stakeholders.

Environmental Reporting in a Total Quality Management Framework: A Primer draws on the environmental reporting experiences of GEMI member companies and reflects GEMI's interest in apply Total Quality Management tools – including measuring and reporting – to improve corporate environmental performance around the globe.

The Primer is organized into four chapters:

- Chapter 1 is an introduction to the primer
- Chapter 2 outlines the basic TQEM framework many companies rely on for effective and efficient internal environmental reporting
- Chapter 3 examines the external environmental reporting process as a logical extension of the internal reporting program.
- Chapter 4 summarizes the key findings of the primer and contains a directly of additional resources.



Total Quality Environmental Management: The Primer

Total Quality Environmental Management: The Primer: Written for corporate environmental managers. Takes the reader through basic definitions of TQEM, how to implement a TQEM program and measurements, and how to use them. Contains a glossary for quick reference. 1993. 25 pages.

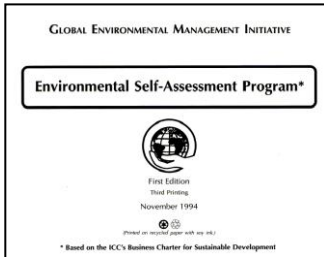
In 1992, GEMI introduced the business world to a management concept known as Total Quality Environmental Management (TQEM). TQEM merges the principles of Total Quality Management, espoused by management guru Dr. W. Edwards Deming, and the goals of environmental management. GEMI is committed to TQEM because it emphasizes the continuous improvement of a company's environmental activities. As part of this commitment, GEMI provides guidance on, and serves as a forum for, TQEM ideas.

GEMI is generally credited as being the first organization to marry environmental management and Total Quality Management (TQM). This primer outlines methods of applying TQM to corporate environmental strategies, a process GEMI has identified as Total Quality Environmental Management, or TQEM.

Total Quality Environmental Management: The Primer is intended to help you get started, to show you how to use TQEM to continuously improve your environmental performance. In no way do these pages comprise a comprehensive training tool on Total Quality; for that, you will need to reference the many excellent books, papers and courses already available.

This Primer is organized into three chapters as follows:

- **Chapter 1 – TQEM Defined:** explains the elements of a TQEM system – identify your customers; continuous improvement; do the right job the first time; and take a systems approach to work.
- **Chapter 2 – Implementing a TQEM Program:** describes how to build a TQEM system within a business – assess your status; identify your customers (both internal and external); learn to use P-D-C-A.; and learn to use TQEM tools.
- **Chapter 3 – Measurements and How to Use Them:** summarizes the benefits of incorporating a TQEM system in your company.



Environmental Self-Assessment Program (ESAP)

Environmental Self-Assessment Program (ESAP): Uses the 16 Environmental Management principles of the International Chamber of Commerce (ICC) as a basis, or benchmark, against which to measure performance. Provides helpful ideas for assessing and developing management programs and improving environmental performance. By using the ESAP, businesses can pinpoint ways to increase the quality of environmental policy, planning and implementation and monitoring. Allows organizations to prioritize environmental improvement opportunities. 1992. 114 pages.

The *Environmental Self-Assessment Program (ESAP)* is intended to serve as a tool for improving environmental management systems through business organizations. By carefully measuring and analyzing performance using this program, business can pinpoint ways to increase the quality of environmental policy, planning, implementation and monitoring. More importantly, the *ESAP* allows organizations of all types to prioritize environmental improvement opportunities.

The *ESAP* is designed to measure and improve corporate environmental management performance over time, with a focus on corporate-level policy, systems, and performance measurement programs. This program can assist a company, regardless of its size, business sector, or geographic scope of operations, in evaluating its environmental management performance relative to the 16 Principles of the ICC Business Charter (found on pages 3-5 of the *ESAP* for your reference). Executing the program will enable management to pinpoint opportunities for improvement in the company's environmental performance.

Each of the 16 ICC Principles are divided into a set of elements – these elements describe the activities necessary to implement the principle. Each element contains four successively comprehensive performance level descriptions – respondents determine which performance level description best describes the overall performance of the company or division. Respondents then score their company against each element. (The company's score is indicated on a scale from 0 to 4.) Respondents then rate the importance of each element – respondents assign an "importance weighting" to each element based on its relative importance of the principle within the company.

Respondents should use the *Basis for Assessment* column to make note of the comments and materials that substantiate their assessment for each element. This will allow others in the organization to understand the assessors' reasoning, and provide a basis for future assessments that measure progress. Explicit references to verifiable documents and programs will improve the consistency of year-to-year assessments.

The *ESAP* can be used to assess individual divisions or the entire company. Best results emerge when multi-function teams discuss and refine performances. Annual execution of the *ESAP* demonstrates change in company performance over time. Scale scoring enables the company to gauge its performance relative to a total quality approach. Rating company performance for each element pinpoints areas of weakness and strength.