

THE JACK H. BROWN COLLEGE, CSUSB, PRESENTS

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Measuring Sustainability: Its Targets, and Key Performance Indicators, Metrics,

(Please bring this to the attention of your students, vis-à-vis sustainability targets, indicators, and metrics in the areas of social justice and sustainability, as promised in our JHBC-PRME commitment to responsible management education).

CAN ORGANIZATIONS MEASURE SUSTAINABILITY?

Some people argue that there is no way to measure sustainability, or, that sustainability simply CANNOT be measured. Others say that it is due to the complex



interactions between social, economic, political, and biophysical systems that make sustainable development such a daunting challenge¹ to evaluate. However, as we get more and more familiar with the concept of Sustainability, its Metrics, Indicators and Key



Performance Indicators (KPIs) are increasingly being developed and used by governments, non-profits; and, corporations. These tools contain TARGETS and INDICATORS that help organizations to see where they rank on sustainability continua at a given time for continuous improvement. The “*daunting challenge*,” is now being chipped away by awareness that “business as usual” (BUS) is, itself, reaching the tipping point.

A SAMPLING OF SOME MAJOR MEASURING INSTRUMENTS IN USE TODAY:

- UN’s 17 Sustainable Development Goals (SDGs)
- The Global Reporting Index (GRI)
- Environmental, Social and Corporate governance--ESGs
- The Ecological Footprint Network
- The Environmental Sustainability Index (ESI)
- The B Lab Certification
- ISO 14001 for Environmental Management Systems



¹ Tallis, H.M., et. al (2018) “An attainable global vision for conservation and human well-being” *Frontiers in Ecology and Environment*.

SUSTAINABILITY--TARGETS, INDICATORS AND METRICS:

The UN's 17 Sustainability Goals, contain Targets, Indicators and Metrics. The 17 Sustainable Development Goals are defined in a list of **169** SDG Targets. Progress towards these Targets is tracked by **232** unique Indicators.

Targets: A target is the mechanism that aims at some expected outcome or goal. For example, each of the UN's 17 Sustainable Development Goals (SDGs), e.g., Poverty, Climate Change, Water, etc., are accompanied by specific targets. Each goal has about 8–12 targets, and each target has between one and four indicators used to measure progress toward reaching the targets. By the year 2030.²



Indicators: Indicators are statistics (usually expressed in percent rate or frequency formats) used to measure current conditions and to forecast trends. Used for a few well-thought-out needs, it can be said that a sustainability indicator represents a particular operational attribute of a system. They are often known in business as KPIs or *Key Performance Indicators*,³ evaluate organizational performance, assist in trend analysis, promote continuous improvement and proactive performance, provide understanding to management of processes and staffing. (Image Right Above: Dreamstime).



Metrics are baseline, atomic (small) and simple quantitative composition measures, or data points, that give information about a particular process or activity. They are used for assessing, comparing, and tracking performance or production. Generally, a group of metrics will typically be used to build a dashboard that management or analysts review on a regular basis to maintain performance assessments, opinions, and business strategies. Metrics ensure companies can measure progress and track relevant goals while demonstrating effectiveness and impact. They are your “*business as usual*” measures that add value to your organization. (Image Left Above: Dreamstime)

² The global indicator framework was later adopted by the General Assembly on 6 July 2017 and is contained in the Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the 2030 Agenda for Sustainable Development ([A/RES/71/313](#)), Annex.

³ Berumen, A and C. Cavanaugh (2021) “Developing a KPI-driven Data Strategy” in *Business Strategy, Data, and Management Practices*, Vol 24 (2).

MAJOR METRICS, KPIs, & TARGETS USED FOR ANALYZING SUSTAINABILITY:

- **UN's 17 Sustainable Development Goals (SDGs)**

The 2030 Agenda for Sustainable Development, signed by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, for nations, present and looking ahead. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent appeal for action by all countries - developed and developing- -in a shared global alliance.

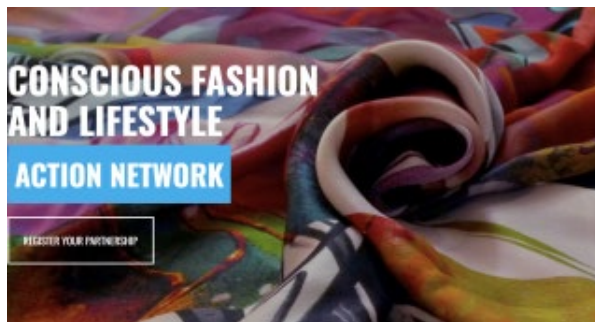


Each of the 17 SDGs are infused with specific Indicators and Targets to help agencies in nations to understand and

compute how they can operationalize their organizations in the global goals. It is generally recognized that the current industrial situation is epitomized by unparalleled, rapidly accelerating, and multi-layered threats and benefits. New markets are budding up quickly due to worldwide trends, e.g., population growth, resource paucity, or global threats to human health and well-being. At the same time, average consumers and investors are more knowledgeable than ever before – and they require businesses to take more interest in planetary survival.

In terms of strategic planning in business corporations, there is growing understanding that it is not enough for companies to concern themselves only with short-term profits because natural disasters, social unrest or economic disparity can damage long-term prosperity. The businesses that understand this challenge and take action will be a step ahead.

SDG Goal #12, Responsible Consumption and Production, for example, can be looked from the



perspective of the Fashion Industry to benchmark sustainable fashion. SDG Goal #12, has 8 targets with subcategories. These help leaders in the fashion industry to design systems of evaluation relating to the special operations of the fashion industry.

In fact, the environmental and social implications of fashion production and disposal, make it of high significance integrate the targets of *all* of the 17 Sustainable Development Goals and will help it into greater sustainability and positivity for people and the ecosystem. This

industry has been in serious breach of labor and safety laws and employee abuse, especially in their outsourced production facilities in developing nations.

"THERE IS NO BEAUTY IN THE FINEST CLOTH IF IT MAKES HUNGER & UNHAPPINESS."
MAHATMA GANDHI

The UN SDGs pertinent to this industry, can help to tackle the environmental and social issues related to clothing production and consumption. The implementation of sustainable design strategies, promoting the use of sustainable technologies and appropriate resource management throughout the textile supply chain, is needed.

Here is the UN website where you will find all the 17 goals: www.un.org/en/exhibits/page/sdgs-17-goals-transform-world

- **The Global Reporting Index (GRI)**

GRI is a non-profit organization, whose strategic mission is to enhance sustainable development through greater transparency and accountability. GRI is backed by a wide range of partners who support the organization's efforts work around the globe. It is an international standards organization is autonomous. It aids businesses, governments and other organizations appreciate, understand and transmit their impacts on matters such as climate change, human rights and corruption. GRI is not tied to any one majority interest or funder, which means our funding model allows the organization to set truly



independent reporting standards. The majority of GRI's funding come from commercial services, events, corporate engagements and memberships, while around 40% is provided by program grants from governments and foundations. GRI's

observes that its "strategic partnerships with governmental and institutional funders support programs that empower companies, promote fair and responsible value chains, and create a more inclusive world economy through the practice of sustainability reporting."

GRI benefits more than 10,000 organizations in over 100 countries. The Standards are advancing the practice of sustainability reporting, and enabling organizations and their constituents to take action that creates economic, environmental and social benefits for everyone. GRI works with businesses, investors, policymakers, civil society, labor organizations and other experts to develop the Standards and promote their use by organizations around the world. In addition the Standards are regularly reviewed to ensure



continuous improvement by reflecting on global best practices for sustainability reporting, helping organizations respond to emerging needs. [GRI - About GRI \(globalreporting.org\)](http://www.globalreporting.org)

For those who need it, here are the relevant contact #s for GRI. Email: info@globalreporting.org; Telephone: +31(0) 20 531 00 00. The GRI Secretariat is located in Amsterdam

- **Environmental, Social and Corporate governance—ESGs**

In 2004, Kofi Annan (then secretary of the United Nations) asked major financial institutions to collaborate with the United Nations and the



International Finance Corporation in identifying ways to integrate environmental, social, and governance concerns into capital markets. The UN had recognized that investors were increasingly applying the above non-monetary considerations into their evaluation factors as part of their analysis process to identify material risks and growth



opportunities. The term ESG was officially used in 2004 with the publication of the UN Global Compact Initiative’s Report, “*Who Cares Wins*”. “ESG” was initially introduced in the Socially Responsible Investing (SRI) area. Using the acronym ESG, the goal was to group three of the main pillars of ethical management—the environment, society and governance. (Image above Left: The late Kofi Annan; The Guardian).

ESG is an instrument that extends the traditional analysis of corporate value by including sustainability factors. According to the Governance & Accountability Institute, 90% of companies in the S&P 500 Index issued sustainability reports in 2019. According to Deloitte, ESG assets in the United States will be worth \$35 trillion by 2025. The number of companies reporting on sustainability efforts has increased as now more investors demand detailed ESG reports.



ESG companies are those graded using ESG criteria — though if a person is looking for ESG companies to invest in, they will likely want those with the highest scores. A corporation can use a stock screener to figure out a stock's ESG score. ESG stock screeners can help you better recognize trading opportunities as a short-term trader. With a stock screener, you can narrow down your financial investment search by selecting your parameters and

defining your unique requirements. Investors of all stripes use stock screeners for different ends. Many providers break the scores down and show a company's performance in each category: environmental, social and governance. (Image Above Left: Wealth Management)



The report “Who cares Wins: – Connecting Financial Markets to a Changing World”, in the *UN Global Compact, 2004* is ESG awareness in its infancy. It states: “A better inclusion of environmental, social and corporate governance (ESG) factors in investment decisions will ultimately contribute to more stable and predictable markets, which is in the interest of all market actors”..

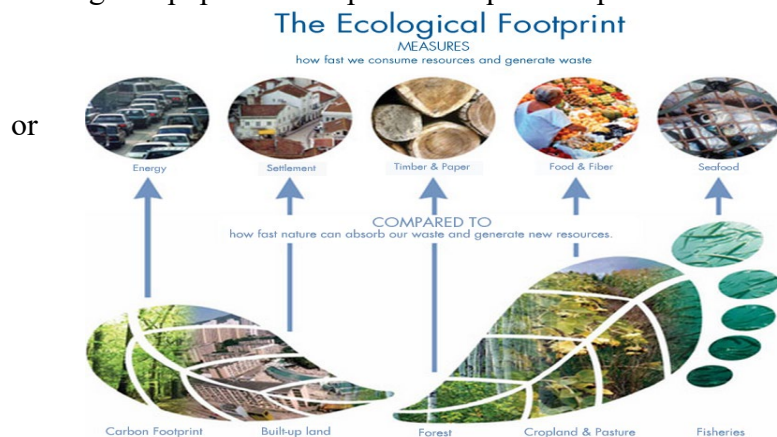
The important thing is that ESG data reflect the negative externalities caused by an organization with respect to the environment, to society and to corporate governance. ESG data can be used by investors to assess the material risk the organization is taking and by the organization itself as metrics for strategic and managerial purposes. To access the ESG Report on “Who Cares Wins”:

https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf

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- **The Ecological Footprint**

The Ecological Footprint Network’s accounting measures the *demand* on and *supply* of nature. As the network explains, “ On the **demand side**, the **Footprint** adds up all the productive areas for which a population, a person or a product competes.” It assesses the environmental resources that a given population or product requires to produce the natural resources it consumes and to



absorb its waste.

“On the **supply side**, a city, state nation’s biocapacity tells us the productivity of its ecological assets (including cropland, grazing land, forest land, fishing grounds, and built-up land).” These areas, can also serve to absorb the waste we generate, especially our carbon emissions from burning fossil fuel.

The Ecological Footprint Standards (2009) are designed to ensure that Footprint assessments are produced consistently and according to community-proposed best practices. Their goal is to ensure that measurements are conducted and communicated in a way that is accurate and transparent, by providing standards and guidelines on such issues as use of source data, derivation of conversion factors, establishment of study boundaries, and communication of findings. The



Standards are applicable to all Footprint studies, including sub-national populations, products, and organizations.



How many “earths” is an individual using in daily life? The network provides a convenient **footprint calculator** where anyone can use to work out his/her use of the planet. Their mobile-friendly Footprint Calculator is now available in eight languages at www.footprintcalculator.org.

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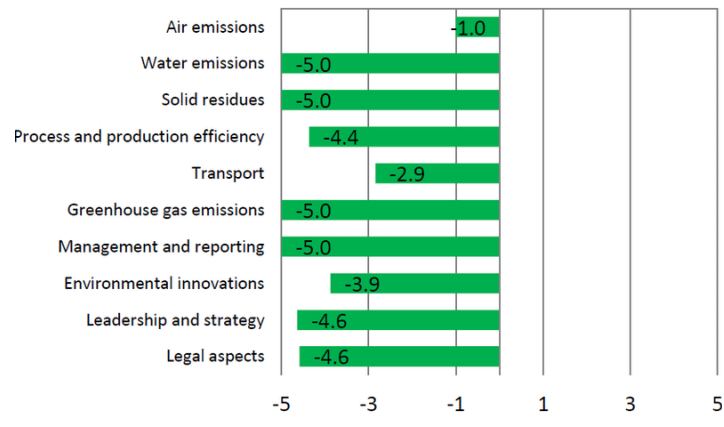
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- **Environmental Sustainability Index (ESI)**

The ESI is an amalgamated indicator used to assess the state of the environment in multiple dimensions. It aggregates it into a single index that is interpretable and comparable across all the states. The Indicators and Policy Components enable organizations to get a more nuanced picture of their performance.

ESI is based on the Driving Force-Pressure-State-Impact-Response (DPSIR) framework. The chain of causal links starts with ‘driving forces’ (anthropogenic activities) which, exert ‘pressures’ (pollution & waste) on the ‘state’ of environment (air quality, water quality), which in turn ‘impacts’ ecosystem and human health. This triggers ‘responses’ (conservation, emission reduction) to preserve and/or ameliorate environmental conditions. Categorizations of indicators as per DPSIR components highlights overall sustainability trajectory of the state. Its objectives are to:

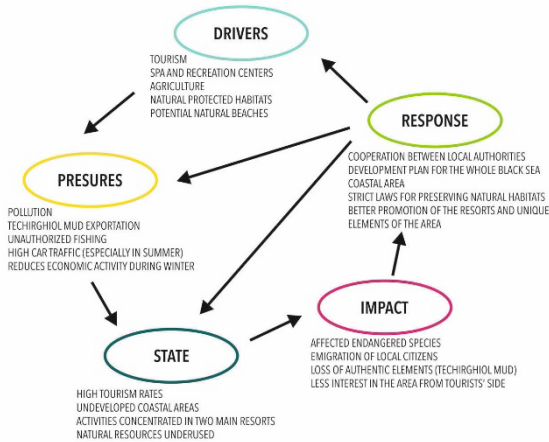
Environmental sustainability indicators



- **Quantify environmental sustainability, measure it along multiple dimensions and aggregate into simple interpretable index.**

- **Facilitate benchmarking for cross-state comparison and create a baseline for tracking environmental sustainability.**

Indicators are grouped under nine sub-indices according to broad areas across which policies are formulated and state bureaucratic and administrative institutions are organized. For example, all land related indicators such as grazing land, soil erosion, pesticide and fertilizer consumption intensity are grouped under the rubric of ‘Land Use & Agriculture’. These sub-indices provide insights on particular drivers with implications for policy and action. The aggregate index is derived from these underlying nine sub-indices



A nation state with higher ESI ranking means it has managed its natural resource stock judiciously; face less stress on its environment systems and less impact on human health. On the contrary, a state with lower ESI indicates that it has depleted its stock of natural resources and has accumulated waste and pollution which has created stress on ecosystem and human health.

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• **The B Lab Certification**

B Lab is a non-profit corporation that certifies B Corporations—it offers a variety of support, varying from access to the Certified B Corp logo to introducing new Certified B companies to a large, lively community of other Certified B Corporations. The "B" stands for beneficial and indicates that the certified organizations voluntarily meet certain standards of transparency, accountability, sustainability, and performance, with an aim to create value for society, not just for traditional stakeholders such as the shareholders. There are over 4,000 Certified B Corps in 77 countries across 153 different industries.



Thirty minutes can give you a snapshot of your company’s impact, which includes a basic summary of which things your company excels at and which it could improve upon. 2 - 3 hours gives you a full impact report, which includes a holistic report on how your company scores on a single impact topic. Within the B Impact Assessment, you can also access improvement tools, best practices guides and case studies as well as create a customized plan for your company’s improvement. Standards and benchmarks can help you reach your improvement goal.

B Lab's standards are multifaceted and include:

- **B Impact Assessment:** A comprehensive tool to measure, manage, and improve a company's positive impact performance for workers, communities, customers, suppliers, and the environment. A required verified score of 80 on the B Impact Assessment also serves as a certification requirement for B Corp Certification.
- **Risk Standards:** An assessment of eligibility for B Corp Certification based on a review of potentially negative impacts associated with a company's industry and other practices.
- **Multinational Company Standards & Baseline Requirements:** Additional baseline requirements for large companies which are defined as a parent company generating \$5B+ in annual revenue.



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- **ISO 14001 for Environmental Management Systems (EMS)**

Many organizations have undertaken environmental “reviews” or “audits” to assess their environmental performance. On their own, however, these “reviews” and “audits” may not be sufficient to provide an organization with the assurance that its performance not only meets, but will continue to meet, its legal and policy requirements. To be effective, they need to be conducted within a structured management system that is integrated within the organization.

The International Standards Organization (ISO) helps with this.

The ISO was established 1947 by representatives from 25 countries. They shared a common goal ; i.e., of ensuring products and services were of good quality and were safe and reliable. ISO is a global federation of national standards bodies with a central office in Geneva, Switzerland, that coordinates the member network.



The work of preparing International Standards is normally carried out through ISO technical committees. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. Each member body interested in a subject for which a technical committee has been established has the right to be represented. (Image Left: Vinsys)

Over the decades following, ISO announced its standards for everything from units of measure to freight containers and environmental quality. It was not until 1987 that ISO 9001 – one of the most recognizable standards today – was published as ISO's first quality management standard. The environmental standard ISO 14001 followed not long after in 1996, and ISO engaged in continuously improving their guidance because new areas are developing into fields such as:

information security, social responsibility, energy management, and corporate ethics and integrity. Today ISO 14001:2015 is the world's favorite International Standard for environmental management for a wide range of corporations and other entities. It is an important step forward for covering all manner of environmental challenges, that assist organizations to manage them in a holistic manner. Over the decades following, ISO created committees and published standards for everything from units of measure to freight containers and environmental quality. It was not until 1987 that ISO 9001 – one of the most recognizable standards today – was published as ISO's first quality management standard.

By using ISO as a guide, a firm can develop its own standards or look toward ISO certification bodies for help. To find out about these bodies, or to learn more about ISO, please go to: E-mail: central@iso.org Tel. : +41 22 749 01 11

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Disclaimer:

The list of certification indices, and organizations that provide them that are shown above, is not meant to be exhaustive in this document. This report is provided as a way to start your sustainability research studies—for term papers, journal articles, etc.

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Created for JHBC's PRME Platform by Professor Brenea E. Coates, for use by faculty and students in Ethics, and Sustainability Studies