

“Sustainability” is much more than just a recent Buzz word

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The world is faced with challenges in all three dimensions of sustainable development: economic, social and environmental. More than 1 billion people are still living in extreme poverty, and income inequality within and among many countries has been rising; unsustainable consumption and production patterns have resulted in huge economic and social costs and may endanger life on the planet

The world is changing....Changing at 10 X speed

The Fourth Industrial Revolution is transforming practically every human activity: the way we make things; the way we use the resources of our planet; the way we communicate and interact with each other as humans; the way we learn; the way we work; the way we govern; and the way we do business. Its scope, speed and reach are unprecedented. This has led to euphoria: Better products, Convenient services, Growing incomes, Life becoming easier. But this has also brought along challenges: Fast depleting scarce natural resources, Environmental degradation. The world will not be hospitable to future generations if we do not follow sustainable practices now

Achieving sustainable development will require global actions to deliver on the legitimate aspiration towards further economic and social development. Sustainable development will need to be inclusive and take special care of the needs of the poorest and most vulnerable. Strategies need to be ambitious, action-oriented and collaborative, to adapt to different levels of development. They will need to systemically change consumption and production patterns, encourage preservation of natural endowments; reduce inequality; and strengthen economic governance. Moreover, relying on “business as usual” scenarios presents clear risks, because evidence is mounting that:

- ◆ The impact of climate change threatens to escalate in the absence of adequate safeguards
- ◆ Hunger and malnourishment, while decreasing in many developing countries, remain persistent in other countries,
- ◆ Income inequality within and among many countries has been rising invoking the spectre of heightened tension and social conflict;
- ◆ Rapid urbanization, especially in developing countries, calls for major changes in the way in which urban development is designed and managed
- ◆ Energy needs are likely to remain unmet for hundreds of millions of households,
- ◆ Financial system has to be reoriented towards promoting access to long-term financing for investments required to achieve sustainable development

The global community has made great strides in addressing poverty, but a mere continuation of current development strategies will not suffice to achieve sustainable development. Economic and social progress remains uneven, the global financial crisis has revealed the fragility of progress, and accelerating environmental degradation inflicts increasing costs on societies. There are a number of economic, social, technological, demographic and environmental megatrends underlying these challenges—a deeper globalization, persistent inequalities, demographic diversity and environmental degradation—to which a sustainable development agenda will have to respond. The 2030 Agenda for Sustainable Development puts forward a broad and ambitious agenda for global action on sustainable development. To achieve the Goals by 2030, new modalities for development are required, including bringing innovation into the foreground of development projects. An integrated approach to food security and the environment should take into consideration the food, water, energy, environment and climate nexus, while reorienting food production, distribution and consumption.

Strategies for sustainable development

The reality is that many companies have not figured out how to integrate sustainability into their overall business strategy. Part of the reason may be a misunderstanding of what strategy is all about. As Harvard Business School Professor Michael Porter explains, “The essence of strategy is choosing what not to do.”

Reorienting consumption patterns

While technology will play an important role in the transition to sustainable consumption, conscious efforts will still have to be made to move away from more resource-intensive to less resource-intensive consumption, and from unequal to more equitable consumption. Sustainable and equitable consumption patterns, with appropriate reorganization of the economy and society, including a redefinition of output can ensure a better quality of life for all. Reducing our levels of consumption will not be a sacrifice but a bonus if we simply redefine the meaning of the word ‘success.’

Human Development

Human development will remain the main focus of developing countries. In this regard, the transition of developed countries to equitable and sustainable consumption will make it easier for developing countries to pursue their human development goals in a more environmentally sustainable way. Some developing countries have been implementing initiatives directed towards sustainability that, so far, are more advanced than those of developed countries, which suggests that developing countries can provide real leadership in the transition to sustainability

Developing products and services by viewing

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sustainability as a market opportunity.

Rather than focusing on “doing less harm,” Organizational Transformers believe their organization can benefit financially from “doing good.” They see opportunities to serve new markets with novel, sustainable products. In the future, firms will need to adopt more sustainable practices and outputs if they are to retain their legitimacy — their social licence to operate — and thrive.

Social innovation

Shifting beyond technological to social innovation. This approach focuses on new social practices designed to achieve sustainable human relations / well-being. Hackathons could be quite useful in driving social innovations. Hackathons are co-design marathons that originated in hacker culture to speed up the creation of solutions to certain problems. People assisting hackathons usually come from a variety of backgrounds and disciplines. Attendees usually self-organize in groups around a certain problem and compete to solve it using different approaches. Hackathons create bonds and a sense of community and allow people to experiment with different ideas.

Digitally enabled open and collaborative innovation

There is an imperative need for fostering open, digital collaborations. Such innovation approaches draw on and recombine multiple sources and forms of knowledge, especially through digitally enabled open collaboration

Creating Next-Practice Platforms

Next practices change existing paradigms. To develop innovations that lead to next practices, executives must question the implicit assumptions behind current practices. This is exactly what led to today's industrial and services economy. Somebody once asked: Can we create a carriage that moves without horses pulling it? Can we fly like birds? Can we dive like whales? By questioning the status quo, people and companies have changed. In like vein, we must ask questions about scarce resources: Can we develop waterless detergents? Can we breed rice that grows without water? Can biodegradable packaging help seed the earth with plants and trees?

Developing New Business Models

Most executives assume that creating a sustainable business model entails simply rethinking the customer value proposition and figuring out how to deliver a new one. However, successful models include novel ways of capturing revenues and delivering services in tandem with other companies.

Case Study – 1

In 2008 FedEx came up with a novel business model by integrating the Kinko's chain of print shops that it had acquired in 2004 with its document-delivery business. Instead of shipping copies of a document from, say, Seattle to New York, FedEx now asks customers if they would like to electronically transfer the master copy to one of its offices in New York. It prints and binds the document at an outlet there and can deliver copies anywhere in the city the next morning.

Case Study – 2

Some companies have developed new models just by asking at different times what their business should be. That's what Waste Management, the \$14 billion market leader in garbage disposal, did. Two years ago it estimated that some \$9 billion worth of reusable materials might be found in the waste it carried to landfills each year. At about the same time, its customers, too, began to realize that they were throwing away money. Waste Management set up a unit, Green Squad, to generate value from waste. For instance, Green Squad has partnered with Sony in the United States to collect electronic waste that used to end up in landfills. Instead of being just a waste-trucking company, Waste Management is showing customers both how to recover value from waste and how to reduce waste.

Case Study – 3

Calera, a California start-up, has developed technology to extract carbon dioxide from industrial emissions and bubble it through seawater to manufacture cement. The process mimics that used by coral, which builds shells and reefs from the calcium and magnesium in seawater. If successful, Calera's technology will solve two problems: Removing emissions from power plants and other polluting enterprises, and minimizing emissions during cement production.

Case Study – 4

Growing produce in areas which have limited vital natural resources such as water is a problem calling out for solutions, and one system that is helping the cause is Agricul, a farming system using a film-like material that uses no soil and reduces the amount of water needed by 90 per cent. The material features a hydromembrane surface containing water-soluble polymer and hydrogel, which plant roots use to gain nutrients. The system also means that pesticides are not needed as bacteria and viruses cannot get through the film.

Case Study – 5

Just as 'cradle to cradle' design has led manufacturers to think about how they can ensure component materials can become something new once they've out-lived their initial use, Dutch baby stroller company Joolz has hit upon a way to encourage customers to turn cardboard packaging into a new item. From the large boxes that come with their strollers down to the smaller ones that protect baby accessories, the company has added printed directions inside each, instructing customers on how to make useable chairs, birdhouses and light bulb holders using just the cardboard packaging.

Case Study – 6

Makani Power's airborne windmill stays below the flight paths of aeroplanes and above the altitude of bird flight. The higher the altitude the stronger the wind, so these flying windmills can capture more power than the land-based version, and because it's mobile it can serve a wider area.

Knowledge management for sustainable societal development

The essence of cooperation for helping to ensure sustainable societal development is to ensure equitable access, sharing, transfer and use of knowledge. Knowledge managers need to develop ways to access, build, use, and store knowledge so that it can be effectively accessed and built upon at a later time. Breakthrough ideas must be developed,

tested, implemented and. Lessons learned must be documented and an institutional memory must be developed.

Accessing Green capital

New approaches are also reshaping traditional ways to access capital, creating alternative sources of finance and contributing to community and business initiatives that might not be able to obtain funds through traditional credit markets. Some emerging fundraising models include the following:

- ◆ Online crowdfunding platforms (such as Crowdfunder, Indiegogo and Kickstarter), which propose two business models.
- ◆ Funders either donate to members with business ideas in return for products, perks and rewards, or businesses seeking capital sell ownership stakes online in the form of equity or debt
- ◆ Peer-to-peer lending, which is the practice of lending money to consumers and businesses through online services that match lenders with borrowers (such as Zopa and Funding Circle in the United Kingdom and Prosper and Lending Club in the United States).
- ◆ Platforms such as Kiva, for example, allow people to lend money online to low-income entrepreneurs or students in developing countries
- ◆ Social impact bonds, which are an emerging financial mechanism for the public sector, to improve the delivery of public services. Socially motivated private investors pay upfront for a set of interventions to improve a social outcome (such as housing, health, education and welfare) and receive returns based on the results achieved by the projects

Leveraging Big data for sustainable development

Big data is sometimes regarded as the new oil of the twenty-first century and Governments, companies and civic organizations are increasingly interested in the potential role of data in development. Citizen-driven data is a practice that uses available data or produces new data in order to make visible hidden problems and processes and to create reliable information in relation to issues such as climate change, environmental pollution and inclusive development.

Private sector investments will be needed

It is clear that public sources alone are not sufficient to address the needs of sustainable development. A framework for financing sustainable development needs to ensure that financing from private and public sources at the national, regional and international levels is secured.

Sustainability Report

Sustainability Report is an organizational report that gives information about economic, environmental social and governance performance. Sustainability reporting aims to communicate an organization's sustainability priorities, policies, programs and performance to its

investors. Sustainability reporting requires companies to gather information about processes and impacts using Global Reporting Initiative (GRI) Sustainability Reporting Framework. The German sportswear company Puma is leading the way in transparency and disclosure of its external costs to society. It measures, evaluates and publishes data on its carbon emissions, freshwater usage, pollution and waste. The unique aspect of this exercise is that Puma has measured and monetized these impacts, calculating them along its entire supply chain. It has effectively created the world's first environmental profit-and-loss statement. Dow Chemical developed the Eco-Compass to assess innovations environmentally by plotting product functionality, material intensity, energy intensity, toxicity and resource conservation against two economic indicators: economic value created and security of the business position

Unleashing Innovations for Sustainability

Scientific and technological breakthroughs are vital for progress. As the key axiom of Joseph Schumpeter's work suggests, innovation as the 'perennial gale of creative destruction of ideas and structures' is a natural and necessary process for economic growth'. Problems cannot be solved at the same level of awareness that created them. – Albert Einstein

- ◆ **Disruptive New Products that Change Consumption Habits.** Example: A camp stove that turns any biomass into a hyper-efficient heat source and whose sales subsidize cheaper models distributed in developing countries.
- ◆ **Disruptive New Products that Benefit People.** Example: CT scanners that are portable, durable and have minimum functionality – making them affordable and useful for health care providers in developing countries.
- ◆ **Replacing Products with Services.** Examples: Leasing and maintaining carpets over a prescribed life-time rather than selling them. Introducing car- and bike-sharing services in urban centres to reduce pollution caused by individual car ownership while increasing overall mobility
- ◆ **Replacing Physical Services with Electronic Services.** Example: Reducing paper consumption by delivering bills electronically rather than by mail.
- ◆ **Services with Social Benefits.** Example: A smartphone app that rewards people with coupons for local merchants when they make charitable donations.

What is the use of a house if you don't have a decent planet to put it on ??? Sustainable development is maintaining a delicate balance between the human need to improve lifestyles and feeling of well-being on one hand, and preserving natural resources and ecosystems, on which we and future generations depend.

KFP Vs. BFP (Kya farak padta hai – Bahut farak padta hai)

Ultimately, it will be at the individual level, and in the daily choices we make, and in the lifestyles we lead - that sustainability will be achieved. And it is happening, slowly, together, one step at a time.