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Cologne, 29 September 2011
she

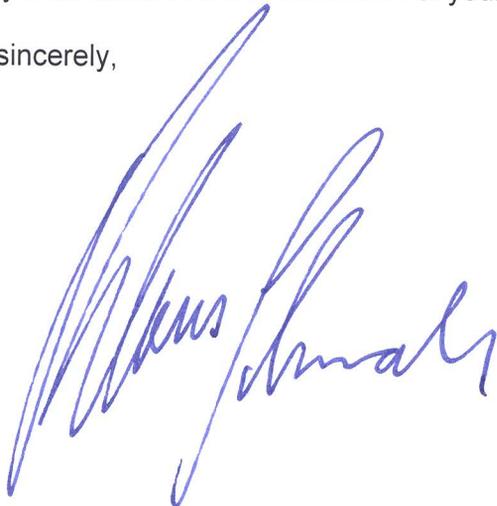
Dear Mr Bangur,

I wanted to congratulate you on having been nominated by our experts group as a New Sustainability Champion.

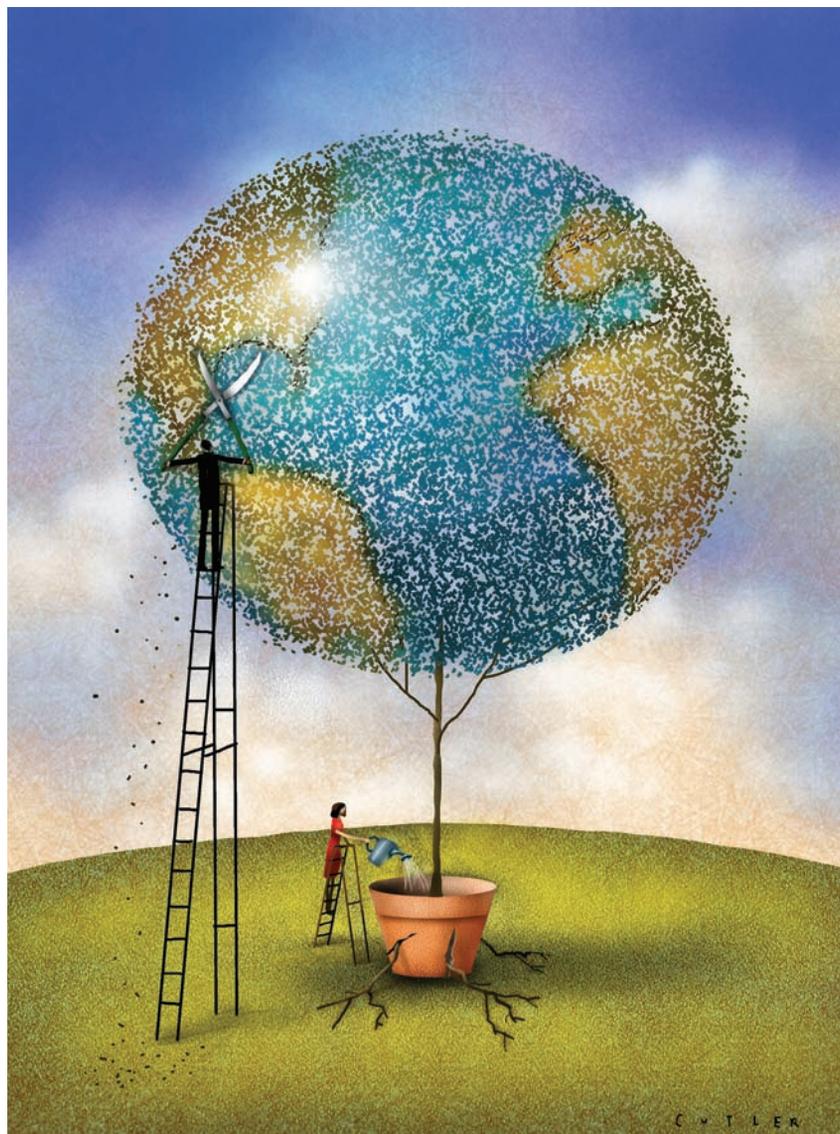
The World Economic Forum is very committed to social responsibility, and therefore we are proud to have in your company another role model for true global citizenship.

With my best wishes for a continuation of your great work, I remain

Yours sincerely,



Redefining the Future of Growth: The New Sustainability Champions



In collaboration with The Boston Consulting Group

Executive Summary

With global population expected to reach 9.3 billion by 2050 and rapid economic growth in developing countries, pressure on the planet's ecosystems will continue to increase. By 2025, Brazil, China, India, Indonesia, the Russian Federation and South Korea will account for more than 50% of the world's economic growth.

Population expansion drives increasing demand for the basic necessities of water, food and energy. Moreover, economic growth will reinforce expectations and aspirations for a better life among the world's newest consumers. Alternative approaches to growth and development will be essential to meet the basic needs and ensure a minimum of well-being for the emergent middle classes as well as to protect the environment.

The World Economic Forum and The Boston Consulting Group (BCG) set out to seek unconventional, practical solutions to the current challenges of growth, aiming to identify and support key business practices, and to relay them to the global community. This project deliberately did not look to governments, environmental organizations or multinational corporations from advanced economies – all sources of well-practiced but as yet insufficient answers. Instead, it went to agents who deal with a wide range of constraints in their daily business: rapidly growing companies originating and operating in the emerging markets, where economic prosperity and populations are growing fastest, and where environmental constraints and stresses are often highest.

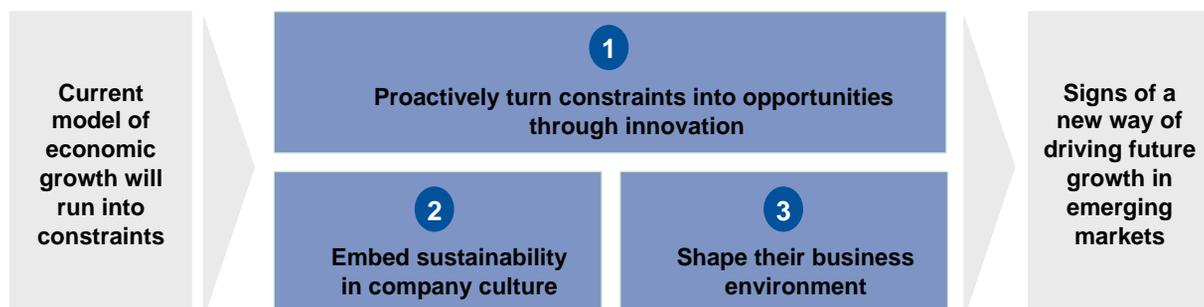
As a result of a rigorous research process, the project identified and assessed 16 emerging market-based companies that share a unique mindset and set of best practices: these are the **New Sustainability Champions**.

Based in countries such as Brazil, Costa Rica, Egypt and Kenya, these companies provide inspiring examples for any corporation around the world interested in tackling the challenges of performance, innovation, growth and sustainability. Specifically, the New Sustainability Champions:

- 1. Proactively turn constraints into opportunities through innovation**
- 2. Embed sustainability in their company culture**
- 3. Actively shape their business environments**

Moreover, they demonstrate superior financial performance when benchmarked against their peers.

The mindset, practices and business models of these New Sustainability Champions offer critical insights for emerging market-based businesses, established multinationals and governments. They could provide multiplier effects and create the basis for replication and extension among companies operating in emerging markets. They also serve as a starting point for redefining the future of growth: one that is robust and efficiently binds together all elements of sustainability – economic, environmental and social.



1. Context

Mankind is steadily exhausting the planet's natural resources. Fresh water, fossil fuels, clean air, precious metals, fish stocks, arable land – the depletion of these resources and many others is of profound concern. But, as will be discussed later in this report, there is also real cause for hope because innovation is flourishing in some unusual forms – and in some surprising places.

For now, the rise of promising innovative responses does not diminish the magnitude of the challenge. In fact, it is exacerbated by rapid population growth and surging economic expansion, particularly in emerging markets. By 2050, the world's population is expected to be about 30% greater than it is today. By 2025, Brazil, China, India, Indonesia, the Russian Federation and South Korea together will account for more than 50% of the world's growth.¹

Together, population and economic growth will reinforce expectations and aspirations for a better life among the world's newest consumers. New approaches to growth and development will be essential if the expanding requirements and wishes, as well as the basic needs of this emergent middle class, are to be met.

Clean water is one of the resources under greatest threat. By 2030, people and businesses will consume 30% more water than nature can replenish. Unless current water use and conservation practices shift dramatically, shortages will lead to increasingly severe consequences. Agriculture currently accounts for about 70% of the world's freshwater use and reports already warn of potential outcomes of this usage. For example, if Egypt lacks the access needed to water from the Nile – a real possibility – it may struggle to feed its fast-growing society.²

Farmland and forests are also at risk. Large-scale deforestation is considered responsible for climate change, threatening indigenous peoples and causing loss of biodiversity. At the same time, up to 30 million hectares (74 million acres) of agricultural land are lost each year as land becomes infertile or toxic, is ploughed under for industrial use or yields to urban expansion.³ Of that land, less is available for growing food: more than one-third of large-scale land acquisitions – which last year reached some 45 million hectares⁴ – are intended for biofuel production.⁵

Alternative food sources face challenges of their own. The United Nations Food and Agriculture Organization (FAO) report on *The State of World Fisheries and Aquaculture 2010* states that the per capita supply of fish as human food reached a new record in 2008.⁶ More than one-quarter of the world's monitored fish stocks are overexploited, depleted or slowly recovering, meaning that they are unavailable for fishing.⁷

There is little to suggest that regulation alone, or companies or governments acting in isolation, can do much to improve – let alone significantly alter – the long-term outlook. Economic health is first and foremost assessed by measures of consumption and exchange. The standards by which economic growth and progress are measured will not change quickly. There is no global balance sheet for the world.

The solutions lie with innovation and the efforts of business leaders committed to societal and environmental improvement; and it is mostly likely to be innovation driven by economic opportunity rather than by corporate conscience or regulatory fiat. Already, many large multinationals are doing much to “green” their product portfolios while satisfying shareholders' expectations.

What is most interesting, however, is that innovation of all kinds is burgeoning in emerging markets – the very regions where the pressures of resource depletion will be felt most keenly. That fact is doubly interesting given the challenges faced by companies in those countries. They must deal with multiple problems in parallel – from inadequate infrastructure and weak environmental regulatory regimes to shortages of experienced talent and underdeveloped governance practices.⁸

2. Introducing the New Sustainability Champions

This project set out to identify companies originating in the emerging markets for the purpose of researching and understanding the most effective innovative practices for driving sustainable growth. Sixteen proactive innovators were selected from an initial pool of more than 1,000 companies based on the criteria of sustainability, innovation and scalability: these companies clearly stand out as the New Sustainability Champions. For further details on the selection methodology, please refer to Annex 1.

The New Sustainability Champions are not confined to one region or continent. They are by no means unique to the fast-growth BRIC nations – Brazil, Russia, India and China – and are located across the globe and in a wide range of industries.

They tend to grow faster and have higher-than-average margins for their industries. Not only do they have a business impact – doing well by conventional financial measures – but they also have a positive effect on society around them.

The New Sustainability Champions share characteristics that enable them to balance environmental and societal contributions with steady profitability. As will be discussed in the next section of this report, they innovate and grow in ways that turn constraints into assets and opportunities. They embed sustainability in their corporate culture and proactively shape their business environments.

These Champions are more than mere symbols. Their overall performance matters because emerging markets are set to contribute more than three-quarters of global growth by 2012, and because those markets will likely be most affected by resource scarcity. They are in the forefront of the businesses working to overcome fundamental environmental and social challenges, reshaping business landscapes. Collectively and individually, they are becoming inspirational models for their emerging-market peers and companies worldwide.

Broad Group	People's Republic of China	Manufacturing
Equity Bank	Kenya	Financial Services
Florida Ice & Farm	Costa Rica	Consumer Goods
Grupo Balbo	Brazil	Agriculture
Jain Irrigation Systems	India	Manufacturing
Manila Water Company	Philippines	Infrastructure
Masisa	Chile	Forestry/Manufacturing
MTR Corporation	Hong Kong SAR	Transportation
Natura	Brazil	Consumer Goods
New Britain Palm Oil	Papua New Guinea	Agriculture
Sekem	Egypt	Agriculture
Shree Cement	India	Cement
Suntech	People's Republic of China	Renewable Energy
Suzlon	India	Renewable Energy
Woolworths	South Africa	Retail
Zhangzidao Fishery Group	People's Republic of China	Aquaculture

3. Unique Practices of the New Sustainability Champions

During the research and interview period, we focused on identifying common best practices and behaviours of the study companies and found that the New Sustainability Champions exhibit three broad sets of characteristics. They:

- 1. Proactively turn constraints into opportunities through innovation**
- 2. Embed sustainability in their company culture**
- 3. Actively shape their business environments**

Each category comprises specific behaviours and merits a closer look.

3.1 From Constraint to Opportunity

New Sustainability Champions proactively turn constraints into opportunities through innovation. Their approach involves pragmatic adaptation of existing technologies and delivery mechanisms. They eschew expensive research into new technologies to make current products cheaper, more widely available or better suited to local production processes. The Champions stand out for their ability to turn constraints in delivery channels into opportunities. For instance, they may identify alternative production methods to get products to market more directly.

To innovate effectively, New Sustainability Champions focus attention on these key points:

- **They address lack of resources.** One response to a current or future shortage of a particular resource is to find ways to reduce the amount used. While this often makes sense from an efficiency viewpoint, it also increases the longevity of the business by preserving a critical resource. Importantly, Champions recognize that the reductions need not be limited to their operations but can, and should, apply to their suppliers and users. Two noteworthy examples of Champions successfully addressing resource shortages are Shree Cement, an Indian cement producer, and Manila Water, a water utility in the Philippines.

Faced with limited access to low-cost energy, Shree Cement developed the world's most energy-efficient process for making its

products. The company has become the global benchmark: leading cement companies from around the world visit Shree to learn from its innovations. For its part, Manila Water drove down its levels of non-revenue water (NRW – water that does not reach the customer due to leaks or illegal tapping) from 63% in 1997 to 12% at the end of 2010. This was achieved partly by providing affordable supply to low-income areas, which turned probable NRW perpetrators into partners who now help prevent illegal tapping.

Another way in which New Sustainability Champions turn resource constraints into opportunities is by exploiting the by-products of other companies' outputs or processes. China offers two illustrations of this approach. For instance, Broad Group, a large producer of air chillers, uses alternative energy sources such as waste heat from buildings to power its range of non-electric air-conditioning units. This accommodates a key constraint in China: many people still live "off-grid" in China, and for those who do use electricity, grid supplies are not always reliable.

Zhangzidao Fishery Group is another example. The company practices integrated multi-trophic aquaculture (IMTA), a more sustainable form of biodiverse fish farming that uses the waste of one species to feed another. IMTA aquaculture techniques allow Zhangzidao to increase production and economic diversification while reducing waste by converting by-products and uneaten fish feed into harvestable crops, reducing the need to introduce artificial feeds into the system.

- **They educate their customers.** A new product or service, no matter how well conceived, cannot succeed unless consumers are convinced of its benefits for them. Lack of knowledge and limited awareness constitute barriers to adoption that the New Sustainability Champions must work hard to circumvent, often in creative ways. For example, Jain Irrigation uses dance and song to explain the benefits of drip irrigation to local communities. With this innovative way of marketing, the company can convince and educate potential customers about its products. Not only does this approach help Jain to sell successfully, but

it helps the company work collaboratively with local communities to improve its services and products.

- **They provide customers with appropriate financing.** Another major constraint is a lack of financial assets with which to make necessary capital investments, even when positive returns are expected in the long run. This is particularly true of the rural poor in emerging economies, where banks have limited presence. Kenya's Equity Bank uses mobile phone technology to enable it to reach small farmers in rural Kenya, something that branch-based banking cannot do economically. Equity Bank partnered with Safaricom, leveraging the Kenyan mobile-services provider's M-Pesa financial services platform to launch and provide financial services to its customers.

Suntech, a solar power company in China, cut the costs of its products to make them affordable to customers of limited means. Suntech also provides financial solutions that enable low-income customers to structure payments for its equipment. And when its photovoltaic cells reach the end of their life, the company takes them back for recycling.

3.2 Embedded Sustainability

The New Sustainability Champions embed sustainability in their company culture. They are aware that deep and sustained impact requires demonstrable commitment from the entire organization – not only from the top management team and certainly not solely from the chief executive. The best intentions can flounder, or be subverted, if they are implemented by a sceptical or indifferent team. Conversely, an engaged and proactive staff can be a constant source of new ideas for products, services, delivery mechanisms, talent development, supply sources and more.

New Sustainability Champions put in place the mechanisms that make sustainability an integral part of their business fabric. In particular:

- **They define a bold sustainability vision.** Champions stand out for the ways in which they define clear aspirations and goals for sustainability, and use them to galvanize

the entire organization. They move beyond incremental change to create a vision capable of inspiring their staff – and external stakeholders. Sekem, an Egyptian organic food producer, took a holistic view of environmental and social development. The company wanted to use organic farming as a way to reclaim desert land, producing food for the local market and reinvesting the profits in the community. Sekem also has a highly unusual business model. While it is a profit-making enterprise, its aim is not profit maximization. Through a profit-sharing methodology, it shares its prosperity with the smallholder farmers in its network.

In 2008, at the height of the global financial crisis, the chief executive of Florida Ice & Farm in Costa Rica announced a dramatic change in business strategy to make the food and beverage company more sustainable. The company has set the goals of becoming water-neutral by 2012, achieving carbon neutrality by 2017 (a target even more ambitious than Costa Rica's national goal of carbon neutrality by 2021) and becoming a "zero solid waste" company by 2012.

- **They integrate sustainability into operations.** At the same time, pragmatic business leaders recognize that inspiration alone is rarely enough to produce the desired outcomes, so they develop the appropriate incentives and metrics. Florida Ice & Farm exemplifies this approach. The company spent four years developing a balanced scorecard which measures non-financials such as the number of community service hours that employees spend on watershed-related activities. Remuneration is linked to such performance indicators. For example, 60% of the CEO's salary is linked to the triple bottom line of "people, planet, profit".

Masisa, a wood products manufacturer in Chile, developed a balanced scorecard on sustainability that measures performance in all dimensions, including non-financial indicators. The scorecard's inputs and outputs cascade down to each worker and are tracked over time.

In Hong Kong, train operator MTR Corporation has made a clear link between sustainability and risk management. The company built a sophisticated framework – a Sustainable Competitive Advantage model – to guide its actions. One example of the framework in practice: eight environmental impact assessment reports are mandatory for every project to develop a new rail line. MTR Corporation also measures the impact of these projects on biodiversity both before and after the construction stage – an approach that is rarely found in its industry.

- **They engage the workforce in sustainability.** Aside from setting out a bold vision and integrating sustainability into everyday operations, it is necessary to fully engage the workforce. Natura, a Brazilian cosmetics company, invests heavily in training its managers to identify socio-environmental challenges and turn them into business opportunities. Natura’s staff is also motivated by bonuses based on environmental and social performance as well as on economic measures. And Woolworths, a South Africa-based retailer, works to boost employees’ pride in their jobs, ensuring they are rewarded for contributing ideas that improve the business. The success of this approach can be seen in the fact that many of its best new initiatives do not come from senior management.

3.3 Shaping Business Environments

The New Sustainability Champions actively share their own business environment. They recognize that maximum impact cannot be achieved solely within the boundaries of their own organizations. They understand that engagement with the wider business ecosystem of regulators, competitors, suppliers, customers and other stakeholders is required. They actively engage with these entities to shape the outcomes they envision for themselves.

- **They influence policies and standards.** Companies operating in weak regulatory regimes have the opportunity – and, arguably, the obligation – to define the standards to which the industry should aspire. While it is true that such companies benefit directly from

the policies, they are also effectively using policy as a multiplier to augment the impact of higher standards across their industries. This can be achieved through direct discussions with policy-makers, or through associations and trade bodies.

One strong proponent of this approach is Brazilian organic sugar producer Grupo Balbo. The company aims to help turn the entire sugar industry into an organic sector. It is now collaborating on the creation of Brazil’s first national organic certification system. Balbo is in discussions with environmentally-minded politicians in Germany and Brazil to promote incentives such as tax breaks for organic production. The company has partnered with a governmental environmental research department to conduct more than 1,600 biodiversity field studies.

In India, Suzlon, a wind power producer, uses its knowledge and experience to educate citizens and policy-makers. The company faces the challenge of getting the right policies in place to foster the development of renewable power, particularly in the United States. Internationally, Suzlon helps shape the debate on sustainability and renewable power through organizations such as the European Union Commission, the World Economic Forum and the United Nations, as well as through an active outreach programme to the media.

- **They partner to achieve mutual goals.** Partnerships with organizations that share similar goals can potentially generate far greater impact than if each were to work in isolation. For example, depending on their mandate and focus, NGOs could be potential allies with which for-profit businesses could collaborate.

Kenya’s Equity Bank has adopted this strategy. The bank has a host of partnerships that range from links to agrochemical manufacturers such as Agmark and trade bodies such as the Eastern Africa Grain Council to not-for-profit organizations such as Millennium Promise, aid agencies such as the German government’s GTZ and the United Nations World Food Programme. Equity Bank also has strategic

partnerships with organizations such as the Alliance for a Green Revolution in Africa and The International Fund for Agricultural Development, a United Nations agency that provides cash guarantees that reduce the bank's risk when lending to smallholder farmers who have little or no collateral.

New Britain Palm Oil, operating in Papua New Guinea, worked closely with local NGOs to engage with local communities. The connections helped to smooth negotiations involving land rights – a critical issue since conflicts with suppliers and landowners are the largest barriers to palm oil operations in the region.

- **They build awareness of the importance of sustainability.** Customers are among the key stakeholders who should be engaged to maximize the impact of sustainability initiatives. By educating customers about issues such as pollution, depletion of water or climate change, companies can help put pressure on industry to improve sustainability practices and on government to improve standards and enforcement.

In Brazil, sugar producer Grupo Balbo runs awareness-building campaigns targeting grocery shoppers as well as students and local communities. The company publishes data, including its sustainability report, to increase transparency and establish confidence among stakeholders as well as to spread knowledge and understanding of the organic cultivation of sugar cane.

In China, Broad Group has developed a miniaturized device for measuring air pollution that can fit inside a mobile phone. The device can help boost awareness of air pollution issues and even empower citizens by putting knowledge about air quality in the palms of their hands.

4.12 Case Study: Shree Cement



Location:	Beawar, India
Industry:	Cement
CEO (or equivalent):	Shri H. M. Bangur
Ownership structure:	Publicly quoted
2010 Revenues (US\$ Million):	809
Website:	www.shreecement.in

Context

As a rapidly developing country, India faces significant challenges to meet energy and water needs. Demand for energy is expected to grow annually at an average rate of 3.1% over the next 25 years whereas economic growth will likely increase 8-9%. Although India has historically enjoyed large freshwater reserves, some regions already face water scarcity. An increasing population and overexploitation will further pressure India's resources in the years to come.

In environmental terms, cement production is a high-impact business, using large amounts of energy and contributing 5% of global carbon dioxide emissions. Pollutants are often discharged in the cooling process and disposed of as run-off water, which affects ecosystems and human health. It will be crucial for Indian cement companies to find ways to improve energy efficiency and reduce water consumption. Only then can they achieve growth and support India's development without harming the community.

Company

Shree Cement, established in 1985, is today among the five largest cement manufacturers in India, with a capacity of 14 million tons in eight plants and four grinding units. Revenues reached US\$ 800 million in 2009. The company offers

a portfolio of three brands: Shree Ultra, Bangur Cement and Rockstrong Cement. Together these brands enjoy the largest market share in the north Indian markets of Rajasthan, Delhi and Haryana.

Practices

The company has challenged itself to use innovation and efficiency measures to substantially lessen the environmental impact of its cement production at every stage, adhering to "clean and green is profitable."

Innovate Proactively

When it comes to energy use, the company has introduced an intelligent system that not only protects its operations against the power interruptions that are common in areas of operation, but also ensures a higher level of energy efficiency. It was the first cement company in the world to be certified EN 16001, which is designed to continuously monitor and document energy use, identify action targets, and provide the necessary resources and employee training.

The company uses biomass in captive power plants. It also reuses bed ash waste, which contains unburned particles of carbon, as a fuel in the production of the clinker material for Portland cement.

All cement makers are challenged to lessen the impact of clinker, which must be heated to an extraordinarily high temperature. Shree Cement therefore minimizes the use of clinker, having developed processes allowing for an increase of the fly ash content in its cement as an alternative. It became the first company in the cement industry worldwide to register "Optimal Utilization of Clinker" by the United Nations Framework Convention on Climate Change (UNFCCC), resulting in 0.45 million certified emission reduction units.

Shree has developed several innovative processes to use what is normally considered waste. The company was the first to develop in-house processes for converting low-quality limestone into gypsum, which can be used in the production of cement. In addition to this, Shree makes use of lead zinc slag waste, and has thus far consumed 0.8 million tons. The company has also been able to fuel its heat power plants with petcoke.

Operating in a water-scarce region of India, Shree Cement has also made a point of reducing its water consumption. It has constructed a small artificial lake for the harvesting of water to minimize emissions as well as reduce waste. The company is currently installing a 300 megawatt power plant

that will be air-cooled instead of water-cooled, so it will use only one-tenth of the water needed in conventional power plants.

Embed Sustainability

Besides stringent infrastructure and efficiency measures, the softer elements of the business play a prominent role in promoting sustainability. The company realized that getting people involved is a key to effectiveness in the long term: it implemented two-way communication between management and employees, focusing on young talent who often have prior knowledge of sustainability.

Shree Cement seeks the contribution of ideas and engagement at every level of the company, from the board of directors, management and family members to young recruits. **According to Hari Mohan Bangur, Shree's Managing Director, "A strategy can come from the very base – from the floor level, from the lower offices or junior offices. It is hundreds and thousands of such micro strategies that give the company its edge."**

In support of this strategy, an internal culture promotes innovation by allowing for experimentation, and trial and error, particularly from the younger employees. "They have so much energy and so many new ideas that it's in the interest of everybody to make sure their voices are heard," said Bangur.

Shape the Environment

Shree engages in sustainability reporting, complying with standards such as the Global Reporting Initiative, with the highest rating of A+ for external verification of transparency and disclosure, and for management of corporate social and environmental impact. Shree also participates in the World Business Council for Sustainable Development's cement initiative. Top management invites competitors – including the major multinational cement companies – to visit their plant to share and exchange ideas on energy efficiency and environmental processes.

Impact – Business

According to Shree, sustainability is not about ticking boxes. The company views sustainability as a source of competitive advantage and sees the benefits of waste and energy reductions in cost reductions. Thanks to its investments in technology, Shree Cement has propelled itself rapidly into the position of a world-class producer in terms of input-output ratios, as well as volume and quality.

These efforts have enabled Shree to perform well financially. The average annual revenue growth between 2005 and 2009 was about 50%. The EBITDA margin has been stable with an average of 39%.

Shree Cement also enjoys one of the highest employee retention rates in India for the cement industry – reaching 95% in 2009-2010. In a survey conducted by Business Today, Mercer and TNS in 2008, Shree was classed among the 20 best employers of India – one of five manufacturing companies listed.

Impact – Environmental and Social

In addition to impressive energy efficiency achievements, the company has introduced the most extensive waste heat recovery efforts outside China. Its largest plants have a 46-megawatt heat-waste recovery system that supplements the main 260-megawatt generator. Altogether, the company's efforts have yielded carbon dioxide savings of 76,000 tons a year.

Beyond the walls of its sites, Shree Cement provides free health benefits to people living within a 20 km radius of its factories. "Being in India, we believe in inclusive growth, so including the entire neighbourhood, the whole community along with ourselves is something we believe in," said Bangur.

Shree Cement practices waste-to-wealth conversion. Beyond using biomass and waste heat to supplement conventional electric generation, it has developed ways to make use of bed ash and lead zinc slag in cement production. It was the first company to convert low-quality limestone into gypsum for use in cement production.