July 2016 ₹ 50

sustainabilitynext

conserve • profit

vol. 4 issue 7

sustainabilitynext.in

How Dharma Capitalism Can Lead The World

India and the world are frantically searching for a new mantra to transcend from the quagmire of inequality and filth they have got themselves into. Experiment with Conscious Capitalism as an alternative to socialism and communism has shown limited and slow results. Dr. Ram Nidumolu shows how the ancient India-inspired Dharma Capitalism could be the model the world has been searching for to construct an inclusive and sustainable growth story

India urgently needs a model for economic, societal and cultural growth that is suited to its context. Such a model of all-round growth can provide us a shared vision of a flourishing future where our enormous potential as a country can be realized.

Throughout our history, we have successfully renewed ourselves by learning from others while preserving the core of our ancient heritage. Can we do this again now in the 21st century as we (and the world) face an uncertain future?

In my earlier book on ancient Indian wisdom and business ("Two Birds in a Tree: Timeless Indian Wisdom for Business Leaders" HarperCollins India, 2013), I argued that this preservation and renewal is indeed possible through dharma capitalism. The economic juggernaut that Western capitalism has become in the last 250 years can be repurposed and guided toward the greater good by the 2500-year old Indian concept

TOP FEATURES

TOP NEWS

CII

Confederation of Indian Industry

Knowledge Partner

Purpose: To excite Indian businesses, SMEs, executives and students about the immense business opportunity in not only adopting Sustainability as Strategy in their companies but also inspire them to the possibilities of a big market for innovative sustainability products and services.

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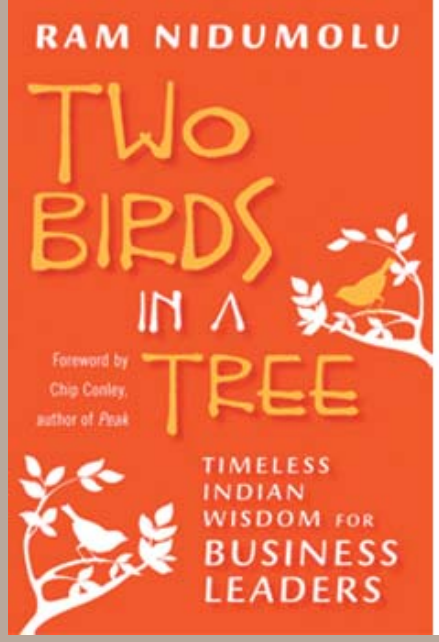

of dharma, which essentially means a harmonious balance or order. Its central importance to human activity originated in and has been nourished by the variety of religions that have thrived in India over the millennia.

Dharma capitalism relies on the core features of free-market capitalism, i.e., the private ownership of wealth and the importance of markets, to enable economic efficiency. But it recognizes that fairness also matters greatly and needs to be balanced with efficiency. Fairness among different groups in society leads to reduced inequality, while fairness among generations and between humanity and nature leads to sustainability.

In dharma capitalism, this balance is consciously cultivated at the individual level by enabling these values in each of us. By contrast, state capitalism (found especially in the Chinese model) seeks to ensure this balance through state-owned enterprises and policies, which often create cesspools of corruption. A core tenet of dharma capitalism is therefore the cultivation of an inner moral compass that a sense of dharma provides. If these internalities are strengthened, then the externalities of capitalism (such as environmental degradation and societal inequality) are mitigated.

Dharma capitalism therefore emphasizes an inner moral compass to achieve a harmonious balance among the different forms of capital, such as financial, physical, human, social, and natural capital.

Being Capital

But where does this inner compass come from and how does it reveal itself? Ancient Indian wisdom provides a clear direction because the many religions that have thrived on its soil have been consistent

in their answer. It can be cultivated when we look beyond the sense of separation that we each feel and recognize that we are deeply interconnected as living beings. In my book, I called this inner sense of larger being and interconnection that is emphasized by ancient Indian wisdom as *being capital*. It is the stock of inner resources that energizes a harmonious balance among the different forms of capital that need to be considered in an all-round model of sustainable growth.

As for how it reveals itself, individuals with high being capital also display high levels of integrity, care, inclusiveness, tolerance, self-awareness, long-term thinking, trust, and other healthyqualities in theireveryday behaviors and interactions.

If being capital is the key means to dharma capitalism, then what are its main ends? Here again, we need to expand our sense of the ends of capitalism through a being-centered approach. Instead of GDP, economic growth, revenues and profits, we need to think in terms of the overall *wellbeing* of India, its institutions and its citizens. Instead of aspiring to become an economically rich society, we need to aspire to become a more *beingful* society that is rich in wellbeing because individuals are rich in their connections to other human and living beings and there is a harmonious balance between the different kinds of capital.

Such a kind of balance, capitalism, and society may seem unattainable and even quixotic in aspiration. In their defense, they are at least more sustainable (and no more unattainable) than the perfect efficiency, free market capitalism, and continually growing economies that are at the heart of conventional economic theories. In addition, ancient Indian heritage also shares this common feature among its many religions and cultures – the goals encouraged by them often seem unattainable, whether it is dharma, moksha (liberation), nonviolence, the pursuit of Truth, or union with God. Nevertheless, these higher aspirations have continued to animate the peoples of our different cultures and religions through the tumult of the centuries.

Capitalism needs such a higher purpose as a guide, if it wants to avoid the fate of its cousins such as socialism and communism that are littering the dustbins of histories around the globe. Dharma capitalism can provide this animating vision to drive our models of a sustainable future.

Dr. Nidumolu CEO, Innovastrat, Inc.
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After reading Two Birds in a Tree, no one can doubt that business can – and should – become a giver

– Paul Polman, CEO, Unilever

"The most compelling executives today have mastered not only business strategy but the philosophical realms of social and environmental responsibility. Two Birds in a Tree cleverly explains how today's business leaders can leverage ancient Indian wisdom to achieve holistic corporate and personal success today."

—M. R. Rangaswami, founder of Corporate Eco Forum and Indiaspora

Watch Ram Nidumolu's talk at 'Crafting India's Sustainable Growth Model' conclave organized by SustainablityNext & IIMB on 11 June 2016.

https://www.youtube.com/watch?v=51Bz_EgEuDE

Indus Towers Makes 10 Million-Tree Impact

Indus Towers, India-based world's largest telecom tower company, has shown sincere efforts in significantly cutting its adverse ecological impact in the last five years. Bimal Dayal, CEO, Indus Towers shares insights about the company's green journey with SustainabilityNext

How far are you from becoming carbon neutral?

Indus Towers has actively been taking measures to achieve the Carbon Footprint reduction, further adhering to the roadmap laid down by Department of Telecommunications (DoT). Reduction of carbon footprint in the last FY was 57 million kgs, whereas, reduction of carbon footprint since the last 5 years is 394 million kgs, which is equivalent to planting of 10.1 million trees. We will continue to work towards creating more green sites in the future and a greener connected India. The company is exploring newer ways of optimizing energy consumption. For instance, newer towers like street poles will be utilized, which will also help in reducing carbon footprint as they do not run on diesel.

What has been the savings from taking ACs from indoor to outdoor?

According to the second edition of Sustainability Report for FY2014-15, the company had a total of 40,505 (2015-16 – 50,461) green sites with 13,064 (2015-16 –41,484) sites converted from indoor to outdoor.

- Diesel saved in the last FY2014-15 - 18 million liters
- Energy cost savings in March 2016 compared to. March 2015 - 7.68%

- Diesel saved in the last 4 years - 147.37 million liters
- Energy cost savings in the last 5 years - 48%

What are the trends in the mobile tower technology that can make them greener?

Our goal is to have more than 50% of our portfolio made up of green sites. We are constantly working on creating a greener, cleaner India and building green sites across the country. With over 50,000+ green sites in 15 circles, Indus Towers is today a big contributor to Green India. We are also working on reducing energy consumption with our SHUT AC project (launched in January 2013) by installing FCU's (Free Cooling Units) and by removing AC's from the sites.

Bimal Dayal
CEO, Indus Towers

As India's largest telecom infrastructure company, we feel that it is our responsibility to transparently talk about our sustainability initiatives with our stakeholders. The transformational impact of our operations on the telecommunications industry makes it all the more important for us to see our business through the sustainability lens. We touch the lives of more than six hundred million people multiple times a day.

Significant increase in mobile data usage and the advent of high-speed networks exert tremendous load on power consumption leading to higher costs for customers and greater environmental impact. As an eight-year old organisation, we feel that our journey has just begun. From a start-up to becoming India's largest telecom tower company – we have always seen ourselves as an organisation whose success directly contributes to nation-building.

We continued to remain in the leadership spot crossing 250,000 tenancies mark in January 2015 and maintained 99.98% normal uptime. **We won the coveted GSMA award for the 2nd time and the Gallup Award 2014 & 2015**. We also won an award in the category of Best Sustainable Investment for the ID-OD at the Global Green Future Leadership Awards 2014.

Indus Towers is an independently managed company incorporated in November 2007 and has been promoted under a joint venture between the entities of Bharti Group (including Bharti Infratel Limited–owns 42% stake in the company) Vodafone India (42% stake) and Aditya Birla Telecom (16% stake).

Sami Labs Ready to Ride the Global Turmeric Wave

By SN Team

The booming demand for turmeric and other herbal health supplements in the West is driving Bengaluru-headquartered Sami Labs to look to South East Asia. Curcumin, turmeric extract, is now the top three on the shelves of global markets. It is sold as an herbal supplement, cosmetics ingredient, food flavoring and food coloring. It's on par with Omega, the super supplement.

Is India ready to meet the rising demand for curcumin? 'Not at all,' says **Shaheen Majeed, Marketing Director of Sabinsa Corporation**, the US-based subsidiary of Sami Labs. Shaheen is the son of the founder of Sami Labs Dr. Muhammed Majeed. "Increasing supply takes time and India needs to act fast if it is to capture the growing market. Because of supply pressures, we are now going out to South East Asia. We are yet to tap Africa," he adds.

Sabinsa's Corporation was set up in the US 27 years ago. Today it is a leader in alternative and complementary natural products for human nutrition and well---being. During this period, the company has launched more than 100 standardized botanical extracts and privately funded clinical studies in conjunction with prestigious institutions. More than 100 full – time scientists work in its Bangalore plant. Dr. Majeed was honored with Hall Of Legends at Natural Products Expo West on in March 2016 in Anaheim California.

Shaheen Majeed
Marketing Director, Sabinsa Corporation

Sabinsa is planning its seventh herbal extracts plant spread across the world to take its capacity of extracts from 25 tons to 45 tons. “We have 100 different unique herbal extracts. Not tied down to one or two like others,” Shaheen says.

Treat Farmers as Entrepreneurs

In 2004 Sami Labs experienced near catastrophic supply issue because of drought conditions in India. This drove the company to experiment with contract farming for its herbs, particularly turmeric in India. It set up Sabinsa Agriculture to work with farmers directly.

This was more than typical contract farming. It needed a 360 degree approach – education about fertilizer use and seed banks. More than that, the company worked on building a community of farmers.

Scheme includes compulsory buyback, insurance against crop failure, minimum agreed prices, easy loans among others. “We treat them like entrepreneurs. In India we work with 6000 farmers, 40 to 50,000 acres. We are spreading out in various regions to create natural balance to de-risk climate risks,” says Shaeen Majeed. By 2006, because of this initiative, the company could regain its supply chain. “We brought community of farmers together – that part of our business will help us deliver in the next few years.” Contract farming now provides 30% of the company’s supply. India’s share in the $40 billion US market is a mere 10% to 15% with China dominating. India’s share is expected to increase this year.

Sabinsa uses business to business model in the US and direct selling model in India. It plans to expand its direct selling to Malaysia, Dubai and Indonesia shortly.

Sabinsa’s future is in nutraceutical which is growing exponentially globally. It has created a Rs.600 crore business and is staring at a pacy 25% annual growth.

Dr. Majeed has created a huge legacy globally and it is now the responsibility of his son Shaheen Majeed to take it forward. He has been groomed since he was 17 and has been running the US operations for some time.

Shaheen is keen on entering the crowded pharmaceutical market, which his father stayed away from. “We have all the ingredients for that now,” he says. He wishes to focus on herbal cosmetics which is a big trend now because of adverse reaction to chemical cosmetics.

Today, everybody wants is a unique formula and we are well positioned to give that. He is in no hurry to tap the stock market to raise funds for expansion. “We want our pillars to still go deeper,” he says.

Jakkur Lake Rejuvenation

Lessons in Impact of Strong Community Leadership

There's always an exception to the rule if one makes an effort to look closely. Among the despairing stories of deterioration of most lakes in Bengaluru, the Jakkur lake is close to reaching its original splendor. The successful rejuvenation of the 160 odd-acre lake situated between the city and the Kempegowda International Airport will be an inspiration to similar efforts across the city. And to the skeptics, this story is a living lesson on how to engage all the stakeholders towards achieving a common goal.

Every third Sunday of each month, Ahum and Jalaposhan organize a live music concert on the banks of the lake with the belief that art, community and nature go together. The stage with the lake as the backdrop looks stunning. The sight of migratory birds in the city's biggest lake adds to its grace.

When governance is slack, the only way anything can be achieved is when the community takes leadership and persists with its goal. "When somebody does anything sincerely, many other things fall into place," says Preenand Premachandran, CEO, Hebron Properties. Jalaposhana is the name of the

Mr. Preenand Premachandran
CEO, Hebron Properties

eco-community of residents around the lake that spearheaded the revival. It even signed a memorandum of understanding with the local authority in May 2015 which gave the body the authority of maintaining the lake, a first for the city.

Hebron is one of the early campaigners among the city-based businesses to support revival of lakes. In 2014, the company supported planting of 700 sapplings and seeing it through with maintenance support since then. “I can vouch that it is the best maintained lake in Bangalore today,” he adds.

The Jakkur experience has prompted Hebron to launch the ‘Make Bangalore Green’ initiative which includes giving importance to local plant species and sourcing material for its luxury housing projects from around the city.

Even dhobhis (washermen) were not displaced when the lake revival plan started in 2012. They have been co-opted into the new design. Active fishing takes place now with catch reaching 500 kgs a day.

It is clear that the government agencies and local political leaders have had their contribution to the revival of the lake. On June 5, 2016, World Environment Day celebration all the key stakeholders – local MLA, corporator and all civic agencies chiefs were in attendance.

Recent worry

Best efforts can turn futile without vigilance. Dr Annapurna Kamath, a member of Jalaposhana, has noted that during heavy rains sewage from storm water drains from a few residential areas has started entering the lake. There are three storm water drains which feed the lake from Yelahanka, Agrahara and Shivanahalli which feed the lake.

Experts say the lake is barely fine despite massive efforts. The Karnataka State Pollution Control Board, research body TERI and the city’s water and sewage body, BWSSB are monitoring the lake quality. But they say help is needed to improve the lake and increase the capacity of the sewage treatment plant for better conservation.

Future prospects

A recent pilot project at the prestigious Indian Institute of Science is exploring the possibility of the lake supplying potable water to nearby towns. The study notes that strict control of sewage flow will open up this possibility. This will relax the pressure on the government from supplying drinking water from far off water bodies.

The biggest asset is the wetlands full of algae around lake which absorb harmful elements. The study is optimistic of creating similar wetland zones around several lakes in the city.

The Jakkur lake rejuvenation experience shows that local solutions to local problems exist. It only requires a motivated citizen group to initiate change. It has had a contagion effect on the city. Dozens of other lakes are being revived. There is hope that the city could spring back with its lakes in good condition in a couple of years.

ExpertTalk on India and Climate Change

Indian Civil Society Needs to Play Bigger Role

Highlights of talk by Dr. Ajay Mathur, DG of TERI, chaired by Prof. Srinivasan, IISC Bangalore on climate change issues facing India

Prof. Srinivasan: India has so far not recognized the problem of climate change. We have been busy fire fighting on immediate problems. Our problem is not so much about CO2 but air pollution and water. We need civil society to raise issues and local climate change more forcefully.

Why should we aspire to reach American energy consumption levels? We can set out own goal for individual energy consumption and purse it relentlessly.

India faces much more serious problem than the world faces but we are not recognizing it. We have to raise issues. We have to get younger people engaged in this because it affects them the most.

On civil society role Dr. Mathur said it has to get active especially in ensuring availability of open source data on everything connected to energy consumption, production, efficiency. Data by civil society will act as competition to government supplied data.

We need to move from individual influence to a collective influence paradigm to solve many energy and climate change issues.

Energy Intensity

India cannot reduce its overall emissions for a long time but it can reduce intensity of energy consumption per capita. This is because today 25% of its population has no access to energy; the other 25% has inadequate access to while the energy use by the reset is much lower than developed country standards. So, use of cheap, but cleaner coal is inevitable in India.

While this may not sound very positive, digital technology solutions and innovative business models could bring down individual energy consumption all over the world, including in India.

Why India can meet its Paris Summit commitments

Like all countries, India too set its own goals – not mandated by any international body like it happened in earlier summits. So, motivation to achieve them is high. India committed to

a. 40% power generating capacity by non fossil fuels by 2030
b. Will capture 2.5 billion tons of CO2 by planting millions of trees

Since two-thirds of the infrastructure that is needed by 2030 has not yet been built, India has the opportunity to drive sharp energy efficiency standards in everything it will do from now. “If we ensure

all new buildings and factories are built more efficiently than yesterday, we can achieve our goals." New benchmarks for power devices are being announced.

"Prices of solar and wind power are decreasing. "My own perception is that in 3 to 5 years we will be at a place where prices of renewable and coal will be the same."

There is no reason why every commercial building in the city cannot have solar panel? While India's renewable energy production will increase ten times, our coal consumption will double by 2030."

India has not had a problem of barrier of flow to clean coal technology.

Balancing power

When so much power is added to the grid from various sources, the big challenge is of ensuring that the grid stays secure or does not collapse – especially since power generation intensity from renewable sources vary wildly during different parts of the day or season. One of the solutions is to have an open market system for renewable and non-renewable power.

Even today Indian can produce more power than it can buy. On 31st August 2015 – 10,000 power was not taken. "We have economic surplus power today. Maximum amount of power sold in India was 140,000 mw. We can produce more than what electricity companies are willing to pay for."

India needs $ 2.5 trillion investment by 2030, how will it get such a huge amount?

Money will flow as long as we ensure returns. The problem with renewable is all the money is put in upfront unlike in coal plants which is in stages.

Indigenization of technology

Wind power technology is mostly from Nordic countries but today many Indian companies have tweaked technology to suit low wind speed Indian conditions.

Work on solar panels that can repulse dust (an Indian condition) is on. LED bulbs are being indigenized to suit power fluctuation situation of India. Pricing innovation to make high technology like LED affordable.

Big Coal Problem

Only 40% of the coal gets used while the rest is pumped into the air. India needs to invest big time in clean coal technology. The Indian government has set up a joint venture between NTPC and BHEL to achieve 48% coal efficiency. But the problem is it is under-funded.

Capturing CO2 and using it productively is the best solution that everyone across the world is working on. Algae that absorbs carbon is being developed.

Man still needs nature to fight the problem he has created!

India is an Environment Basket Case Today

Dr. Ramachandra Guha delivered a fiery talk at a conclave organized by SustainabilityNext and IIM Bangalore's Centre for Corporate Governance & Citizenship on June 11, 2016. He took the audience through India's environmental journey from 1915 to the present. While he rued the sad state of India's environment inflicted by economic liberalization. He is confident that science, civil society and constructive work would lead the next wave. Edited excerpts of the talk:

By Benedict Paramanand

The first wave of environmentalism started when Gandhi came back to India from South Africa - between 1915 to 1950. J C Kumarappa was a Gandhian and India's first environmental thinker. His book – 'How to Cultivate an Economy of Permanence' was path-breaking. He was a pioneer of rural economic development theories. Another Gandhian, Mira Ben, wrote against the indifference of the 'educated class' to environment and livelihoods of hill regions. She was also against the idea of large dams. Her thoughts and warnings in her article in Hindustan Times, in 1949, are still relevant but found no favor with the government.

The first wave of environmentalism has significant and relevant lessons for how India makes its policy and treats its ecological resources. But in 1950, it's voice was not heard since Pandit Nehru believed in big dams and industries to built a new India.

The second environmental wave was between - 1950 and 1991 - when India started its process of economic liberalization. This wave was dominated by mobilization of communities to protest against rampant destruction of forests. The Chipko Movement represented this mood. The major fact to note here is that they were all peaceful yet effective mass protests. These social movements had major impact on public policy with the Government of India setting up the department of environment.

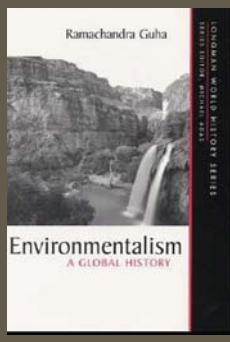
M S Swaminathan's Green Revolution of the 70s was meant to be a temporary initiative but it stayed on and has led to severe long-term problems. He realized this and advocated the concept of eco-villages. Liberalization led to an anti environment lobby and activists were branded as foreign agents holding back India's development. The economic reforms have had negative impact on environment. While all other sectors needed to be liberalized, environment needed stricter control with clear policies and governance.

Clearly there are two sides to liberalizations – the bad has led to India turning into an environment basket case where most rivers, including holy rivers, are polluted and Indian cities are one of the most polluted in the world. Unfortunately, the media abdicated its role as a watch dog during economic reforms. In the third wave (1991 onwards) hostility to environmentalists is becoming less severe and the governments are more serious about ecological impact of their policies. Finally, only science, social activism and constructive work, have the potential of taking India forward with manageable impact on the environment.

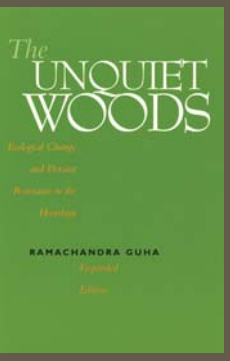
Watch Dr. Guha's talk - https://www.youtube.com/watch?v=mCRnGVlB6Jk

Dr. GUHA'S BOOKS ON ENVIRONMENT

Environmentalism: A Global History (Allen Lane October 2014)



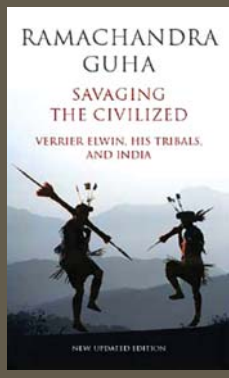
Ramachandra Guha in this book draws on many years of research in three continents. He details the major trends, ideas, campaigns and thinkers within the environmental movement worldwide. Among the thinkers he profiles are John Muir, Mahatma Gandhi, Rachel Carson, and Octavia Hill; among the movements, the Chipko Andolan and the German Greens.



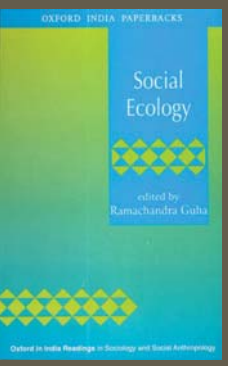
The Unquiet Woods - Ecological Change & Peasant Resistance in the Himalaya (University of California Press, Revised edition February 2000)

The Unquiet Woods, Ramachandra Guha's path-breaking study of peasant movements against commercial forestry, it brings the story of Himalayan social protest up-to-date, reflecting the Chipko movement's continuing influence in the wider world. A new appendix charts the progress of environmental history in India.

Savaging the Civilized - Verrier Elwin, His Trials & India (University of Chicago Press, August 1999)



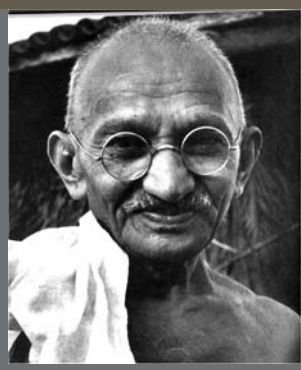
Verrier Elwin (1902-1964) was an influential non-official Englishman who lived and worked in 20th-century India. Elwin's ethnographic studies and popular works on India's tribal customs, art, myth and folklore continue to generate controversy. Described by his contemporaries as a cross between Albert Schweitzer and Paul Gauguin, Elwin was a man of contradictions, at times taking on the role of evangelist, social worker, political activist, poet, government worker, and more.



Social Ecology (Sociology and Social Anthropology), OUP India, January 1998

A collection of pioneering essays. With the growing awareness of the causes and consequences of environmental degradation, the field of social ecology has assumed enormous importance. This reader provides a 'state of the art' survey of the field.

GANDHI WAS AN INSTINCTIVE ENVIRONMENTALIST



Gandhi said: "God forbid that India should ever take to industrialization after the manner of the West. The economic imperialism of a single tiny island kingdom – namely England – is today, namely 1928, is keeping the world in chains. If an entire nation of 300 million (India) took to economic industrialization it will strip the world bare like locust."

If we include China – our population of 2.5 billion - could indeed strip the world bare like locusts.

Gandhi realized that India needed economic growth and believed in lifting people out of poverty through education, gainful employment, and basic health just like other national leaders. But he was not for industrialization in the manner of the west using energy intensive technologies. Gandhi was an instinctive and an intuitive environmental thinker. He was not a systematic environmental thinker.

http://www.irishmirror.ie/news/weird-news/impressive-amazon-mast-towers-more-5712834

Amazon Tower To Study Impact of Climate Change

At 1,066 feet — three feet higher than the Eiffel Tower — it's the tallest structure in South America. It's also the centerpiece of a three-tower scientific complex called ATTO — 150 miles northeast of the Amazon River's largest city, Manaus.

When fully outfitted, ATTO's trio of towers will bristle with gas sniffers, particulate collectors, light sensors and scores of other instruments that continuously will watch over the forest — and the air above it — for at least the next two to three decades.

The Brazilian and German scientists overseeing research at ATTO say that the data collected by these instruments will provide an unprecedented portrait of the role that the Amazon jungle, the world's largest rainforest, plays in the global carbon cycle — a key finding in an era of climate change. And by taking these measurements — including temperature, wind, greenhouse gases, ozone, radiation, visibility, tree canopy changes, soil temperatures and soil gas fluxes — scientists will be able to track how global warming is affecting the Amazon, particularly its ability to absorb carbon.

Two shorter, 260-foot towers, several hundred yards from the Tall Tower, have been measuring gases and other components of the atmosphere since 2010, as well as studying how the fine droplets, gases and tiny particles released by forest vegetation, agricultural fires and pollution from distant cities contribute to the formation of clouds and rainfall in the Amazon.

The Amazon, a region nearly the size of the U.S., is by far the largest rainforest on earth. Biologists have warned for decades that its prodigious biodiversity was threatened by logging.

But more recently, climate scientists have become concerned that global warming also may pose a danger to the forest, possibly by shifting oceanic and atmospheric currents in ways that could lead to a pronounced drying of the Amazon. A study last year suggested that tree mortality in the vast rainforest, possibly related to changing weather patterns, is already reducing its ability to sequester carbon. Before scientists can forecast the fate of the Amazon, they need a more sophisticated grasp of how the forest interacts with the atmosphere. If the Amazon does act as a net sink today, scientists want to know and for how long it will continue to do so.

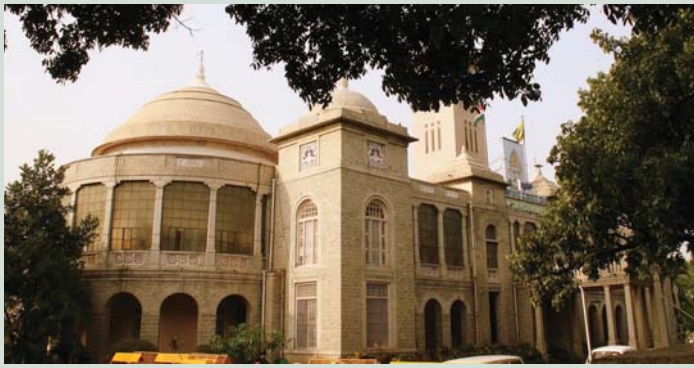
Beginning in the late 1990s, researchers at the United Kingdom's Met Office published a series of worrisome papers on the prospects for Amazonia in a warming world. Using computer models that link climate and vegetation, they found that by altering atmospheric circulation over the Atlantic Ocean, global warming could dry out much of the Amazon basin. They said that much of the forest could turn into savannah, putting at risk the region's rich flora and fauna, and releasing vast quantities of carbon dioxide.

Newer studies have cast doubt on this cataclysmic scenario, saying that while the Amazon may not continue to support its current lush vegetation, some form of forest would remain. ATTO will play an important role in studying these questions.

The complex was funded jointly by the Brazilian and German governments, each of which contributed half of the $9.5 million cost of building and running it for the next several years. Germany's Max Planck Institute for Chemistry and several Brazilian research institutions, including the National Institute of Space Research and the National Institute for Amazonian Research, oversee the project.

About 50 Brazilian and 50 German researchers are already at work on a dozen experiments using the shorter towers, enduring the heat, humidity and occasional threats from snakes or jaguars.

Capgemini Cleans Bengaluru



Bruhat Bengaluru Mahanagara Palike

French IT services firm Capgemini today said it has set up a new Waste Management Centre in Whitefield here, in partnership with an NGO named Saahas and the city civic body Bruhat Bengaluru Mahanagara Palike (BBMP).

This is the first such centre in Whitefield and the third in the city, the company said, adding, it is expected reach out to about 4000 households (approx. 20,000 people) in the area and also cater to about 10-15 bulk waste generators.

Launched as a part of Capgemini's CSR efforts towards the environment, the primary aim of the waste management plant is to demonstrate the concepts of decentralised waste management driven by segregation at source.

This has been taken up under PPP model where Capgemini has set up the entire infrastructure of the centre including equipment such as material handling system and shredder and a building of around 3750 sq. Feet., while BBMP has provided the land. It said these decentralised waste management units will process wet/biodegradable waste into compostor generate bio gas and dry/recyclable.

Dalit Foods Looks to Conquer Caste Prejudice Through E-commerce

Chandrabhan Prasad, a Dalit entrepreneur and adviser to the Dalit Indian Chamber of Commerce and Industry, is starting an e-commerce food business under the name Dalit Foods.

Prasad says it is a social experiment to find out whether there are any takers for Dalit food in India and if India has really transformed. "So far, Dalit manufacturers remained nameless while their products were branded and sold by others as their own. Now, we are branding Dalit products, and according them direct market access," Prasad was quoted in *Mint* newspaper recently.

He said even though Dalits have started working together with other communities and many entrepreneurs have entered the market, it is time for Dalits to openly declare their identity. "Why do we hide our identity? It is time we integrate with the society in a real sense."

Prasad chose e-commerce primarily because of money constraints. He began this business with Rs. 5 lakh investment. The business is limited to Delhi at the moment, and expansion will depend on customer response. The website lists mango pickle, turmeric, flax seeds, coriander and red chilli among the products it sells—staples in any Indian kitchen. It includes special turmeric which is grown in water-deficient Wardha district of Maharashtra.

http://www.livemint.com/Companies/YbUASVvd6m8mbffOFNW2uM/With-Dalit-Foods-entrepreneur-looks-to-conquer-caste-prejud.html

Fortum Helps School Attendance Go Up To 95% in Hot Rajasthan

In February 2014, Finnish energy company Fortum equipped three schools from Bhilwara, Rajasthan, where 1200 students study, with solar-powered infrastructure. Amidst heat wave in Rajasthan, where mercury goes beyond 45 degree Celsius, it is a normal phenomenon to see a more than half of the students drop out.

Fortum India also helped to improve the quality of life in Gulabpura Tehsil by providing solar infrastructure to students and villagers. Solar street lights were installed in the Beed ka Kheda village and solar lamps were presented to every local family. It also built solar-powered toilet facilities for students in two adjoining schools - Senior Secondary Government Girls School, Gulabpura and Senior Secondary Government School, Badala.

Awadhesh Kumar Jha, VP Solar at Fortum India said this initiative has given a sense about solar energy utilisation among the young citizens, and made them understand the value that solar energy can bring to the society.

Fortum has also installed solar panels in the primary and secondary schools in **Kapeli, Madhya Pradesh**, which has benefited 250 students. Also the only clinic in the village received solar panels to ensure uninterrupted medical aid. It also constructed a 10,000 litre water tank in the village which spared them the arduous 6-km walk to the nearest water hole.

Mr. Jha said “solar will drive India’s energy future and hence we are keen to promote the sense of green and clean energy among the people.”

Fortum’s mainly operates in the Nordic and the Baltic countries, Russia and Poland. In 2014, the annual sales (excluding the divested electricity distribution business) totalled EUR 4.1 billion, and comparable operating profit was EUR 1.1 billion. The company employs approximately 8,000 people.

Fortum India currently has 15 megawatts (MW) of solar capacity in India. In January 2016, Fortum won a reverse auction for a 70 MW project with a fixed tariff for 25 years. In addition, on 12 April 2016, Fortum decided to bid for an additional 100 MWs in India, with a fixed tariff for 25 years.

WWF Calls for Standards for Green Bonds

Industry standards in the Green Bond market are needed in order to overcome the "complexity and confusion" that is currently hampering investor confidence in financing green projects, new research from WWF has suggested.

It has called for the "proliferation of standards, frameworks and guidelines" in order to increase the volume of capital entering the Green Bond market, which is suffering as a result of "greenwashing" and unfulfilled requirements.

www.duurzaam-beleggen.nl

WWF UK's sustainable finance specialist Nicole Clucas said: "Green bonds are vital for the future of a sustainable economy, but not everything labelled 'green' fulfils its promise. There must be robust standards to ensure that people get what they expect. Vigorous, credible, fully-developed and widely-accepted industry standards for green bonds are urgently needed to ensure that the market thrives and the sustainable economy grows.

"With the right level of commitment and collaboration among stakeholders, and guided by existing initiatives such as the Green Bond Principles and the Climate Bonds Initiative, it is possible to define a set of widely-accepted standards, building on some of the existing ones while taking into account scientific evidence."

The research revealed that the majority of frameworks and guidelines currently in place are only looking at current environmental impacts prior to the granting of a bond, instead of assessing what benefits would be created throughout the lifetime of the bond. WWF is concerned that this trend will lead to continued "greenwashing" as more bonds – perceived as green – are issued despite only offering minor environmental benefits and improvements.

With countries actively attempting to integrate environmental solutions as part of efforts to comply with Nationally Determined Contributions (NDC) as part of the recent Paris Summit, WWF claims that the creation of industry standards for Green Bonds would "play an integral role" in strengthening financial and environmental transitions to a low-carbon economy.

HAL Installs Wind Power Plant

State-run Hindustan Aeronautics Ltd (HAL) said it has inaugurated a 6.3 mw wind power plant at Harapanahalli in Davangere district, about 335 km from Bangalore, at a cost of Rs. 44 crore. Power generated from the plant would be used for captive energy consumption at Bengaluru, the company said in a release.

T. Suvarna Raju, CMD, HAL, inaugurating the 6.3 MW wind energy plant at Harapanahalli, Davangere. DECCAN CHRONICLE, Jul 3, 2016

This is the first-ever megawatt scale renewable energy project that HAL has set up and would explore more such projects going forward, the company said.

"We are glad that through this green initiative, HAL would reduce its carbon footprint by around 10,000 tonnes of CO_2 emissions per annum. This project would cater to about 15 % energy consumption.

The plant, comprising three wind turbines and installed in collaboration with Suzlon Energy Limited, has the potential to generate 150 lakh units per annum with an estimated annual savings of approximately Rs nine crore to the company, he added

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Solar Power For Maharashtra

e-state government would try to bring the entire power supply feeder for agriculture on solar panels and would try to install energy efficient pumps for agriculture throughout the state. The initiative would bring down money required for cross subsidy for agriculture, resulting in to bringing down power tariff in the state.

Chief minister Devendra Fadnavis informed that Maharashtra has biggest burden for subsidising power for agricultural activity in the country. He informed that the power which costs Rs5 to 5.50 per unit is provided at just Re1 per unit for agriculture. "The burden of this is being passed on to industry and state government is trying to bring agricultural feeder on solar power so that in coming 15-20 years state can bring down the electricity charges for industry," he said.

"As it is the state is spending huge money for providing power at cheaper rate for agriculture. If the amount is invested in solar energy this would result in saving this subsidy amount since agriculture would have separate feeders and it is technically possible and feasible," said the official.

Since it is not possible to bring down cost of production for power through coal and since there is compulsion of 10 per cent solar power production as per international treaty to which India is signatory, the state would have to generate 10 per cent of non-conventional energy.

Laureus Sport to Support Slum Soccer in Chennai

Laureus Sport for Good and BT, one of the world's leading providers of communications services and solutions, have teamed up to use football as a positive force for change among some of India's most disadvantaged youth.

The funding, from BT charitable initiative The Supporters Club which funnels money from its BT Sport customers in the UK, will be implemented within the Slum Soccer project with the help of Laureus Sport for Good over the next two years

Using an innovative football-based curriculum, Slum Soccer will work in partnership with 15 state schools in Chennai to engage 1,500 children in lessons and activities that will equip them to be leaders of their communities and role models for their peers both on and off the pitch.

The aim of Slum Soccer is to foster sustainable development within otherwise marginalised populations of India. Working in areas of homelessness and disadvantage, Slum Soccer uses football to connect individuals, teach life skills and empower youngsters to work towards improving their overall quality of life.

This is the latest sporting charitable project backed by BT in the country. BT --- the global communications player which has fast-growing operations in India --- has previously backed the Amos Trust (which support hundreds of children living in and around the railway station in Chennai, providing access to healthcare and education), and, the British Council which runs the "Kolkata Goalz" in partnership with the English Premier League, using football to develop a brighter future for young people.

Slum Soccer CEO Dr. Abhijeet Barse said, "The support from Laureus Sport for Good and BT will allow us to make a lasting impact in 1500 children's lives. Their backing will enable Slum Soccer to make end-to-end investments in its Edu-Kick program aimed to educate through the medium of football. We have made improvements in infrastructure, outreach, training, and implementation with the support from our partners. With all Edu-Kick trainers being previous participants of the same program, we believe that a virtuous circle of sustainability has been set in motion."

Since its inception, Laureus has raised over €100 million for projects which have helped to improve the lives of millions of young people. The mission of Laureus Sport for Good is to use sport as a means to tackle violence, discrimination and disadvantage experienced by young people around the world.

The first Patron of Laureus was Nelson Mandela. At the inaugural Laureus World Sports Awards in 2000, he said: "Sport has the power to change the world. It has the power to inspire. It has the power to unite people in a way that little else does. Sport can create hope where once there was only despair." This has become the philosophy of Laureus; the driving force behind its work.

http://cleantechnica.com/2016/06/21/irena-terrawatt-initiative-spur-global-solar-development-standardization/

IRENA Calls for Standard Docs for Solar Projects

Leaders in energy, finance and law will collaborate to scale up solar energy under a new initiative officially launched on 21 June 2016 on the margins of InterSolar Europe. The *Solar Energy Standardisation Initiative*, led by the International Renewable Energy Agency (IRENA) and the Terrawatt Initiative, aims to spur global solar development by standardising contracts to streamline the development and finance of solar projects.

Country commitments submitted under the Paris Agreement entail roughly USD 1.2 trillion in solar energy investment by 2030. To reach this target, governments must implement efficient regulatory schemes that enable massive development of solar projects – with minimal risk – and allow private investors to enter the market at scale. There is also a need to reduce transaction costs so solar power can penetrate more markets across the globe.

"High transaction costs for some solar projects are due, in large part, to the complexity of the contractual documents supporting the projects," said Henning Wuester, Director of IRENA's Knowledge, Policy and Finance Centre. "Simplifying the negotiation of these contractual documents will help reduce transaction costs, and allow investment in solar PV to advance more rapidly in more markets worldwide. That is what this initiative hopes to achieve."

"This initiative aims to create a common industry language across all the assets, contracts or markets that are needed to develop renewable energy projects," added Jean-Pascal Pham-Ba, Secretary General of the Terrawatt Initiative. "This will help quickly increase investment to the levels required to achieve global sustainable development and climate goals."

The Initiative will bring together public and private sector stakeholders to define and agree on a standard template for solar project documents that are effective and acceptable by finance institutions. The initiative aims to share templates and standard documentation by COP 22 in November 2016.

Affordable Wind Turbine for Homes

Avant Garde Innovations (AGI), a clean energy startup floated by brothers Arun (34) and Anoop George (30), has designed a turbine that promises to bring down the cost of small wind power plants by 75% making them affordable for households and promising near maintenance-free service for years. The brothers have already filed for a patent for their design.

"It will bring down the cost of setting up small wind turbine equipment from a minimum Rs 2 lakh per kilowatt of capacity to Rs 50,000 per kilowatt," Arun George said.

The turbine has already received recognition by the United Nations Foundation. **AGI's turbine is capable of generating power even at very low wind speeds.** The 1 kw-capacity equipment can provide about five units of power every day — deemed enough for meeting the energy needs of a middle-income household every day.

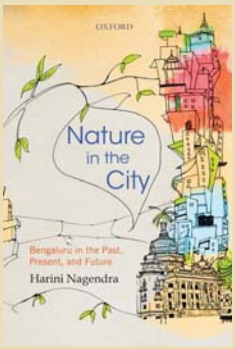
"Investors are also interested because the design holds promise of being implemented as hydel or tidal turbines too. It could also be converted into an automobile motor after certain modifications," he said.

AGI has already been approached by two leading small wind turbine manufacturers from the US and Europe for setting up joint venture facilities in India. "We are assessing these offers. We are also looking at the option of independent manufacturing with third-party assistance, George told a newspaper.

The first factory could come up at Bengaluru or Coimbatore," said Anoop George, who is excited since his company has already received distribution proposals from over 30 countries. "We are seeing large potential in Asia and the Middle East markets, to begin with. Besides, a couple of government and private corporations from the Middle East are keen on the product."

Wind power equipment has poor capacity utilization. Utilisation for large megawatt-level ones hover around 25%. However, the Georges' wind power machine hopes to record a capacity utilization of about 20% — enough for running homes at three-fourth the cost.

BOOKSHELF



Nature in the City - Bengaluru in the Past, Present and Future

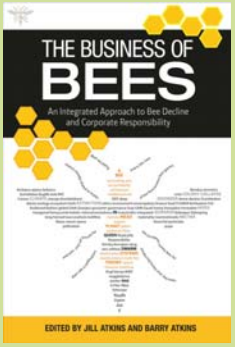
by Harini Nagendra, Oxford University Press, September 2016

In a rapidly urbanizing India, what is the future of nature conservation? How does the march of development impact the conflict between nature and people in India's cities? Exploring these questions, Nature in the City examines the past, present and future of nature in Bengaluru, one of India's largest and fastest growing cities.

Once known as the Garden City of India, Bengaluru's tree-lined avenues, historic parks and expansive water bodies have witnessed immense degradation and destruction in recent years, but have also shown remarkable tenacity for survival. This book charts Bengaluru's journey from the early settlements in the 6th century CE to the 21st century city and demonstrates how nature has looked and behaved and has been perceived in Bengaluru's home gardens, slums, streets, parks, sacred spaces and lakes.

A fascinating narrative of the changing role and state of nature in the midst of urban sprawl and integrating research with stories of people and places, this book presents an accessible and informative story of a city where nature thrives and strives.

Harini Nagendra is a Professor in the School of Development at Azim Premji University, and Asia Research Coordinator at the Center for the Study of Institutions, Population, and Environmental Change at Indiana University.



The Business of Bees

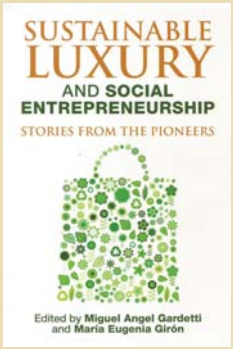
Edited by Jill Atkins and Barry Atkins, Greenleaf Publishing, June 2016

The Business of Bees provides the first integrated account of diminishing bee populations, as well as other pollinators, from an interdisciplinary perspective. It explores the role of corporate responsibility and governance as they relate to this critical issue and examines what the impact will be on consumers, companies, stock markets and ultimately on global society if bee populations continue to decline at a dangerous rate.

The book considers the issue of global bee population decline from a variety of disciplines, collecting the perspectives of academics in accounting, science and humanities with those of practitioners in the finance industry. The chapters explore the impact of the rapid decline in pollinator populations on the natural world, on corporations, on the stock market and on accounting. *The Business of Bees* will be essential reading for those in academia, business and finance sectors and anyone invested in the future of our planet.

Webinar

The Business of Bees: Bee decline and the economic sting Tuesday 12th July, 14.00-15.00 BST
s://www.eventbrite.co.uk/e/the-business-of-bees-bee-decline-and-the-economic-sting-webinar-book-tickets-25817392516#tickets?utm_source=Business+of+Bees+webinar+2&utm_campaign=PracWis+prepub&utm_medium=email



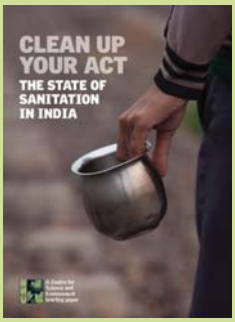
Sustainable Luxury and Social Entrepreneurship Volume II

Edited by Miguel-Angel Gardetti Eugenia Giron, Greenleaf Publishing, April 2016

Luxury products are now seen by a growing number of global consumers as an important and more widely available way of expressing personal aspirations and values. Most consumers of luxury products and services use them as status symbols and symbols of success. However, the definition of success – and the way it is perceived by others – is changing.

Many of these successful consumers now want the brands they use to reflect their concerns and aspirations. Such products come with a heavy social and environmental cost. Sustainable luxury is about rediscovering the old meaning of luxury – a considered purchase of a beautifully crafted object with built-in social and environmental value.

The social entrepreneurs documented in this book highlight the relationship between personal values and sustainability, entrepreneurship and innovation in developing and marketing luxury products. The pioneers outline how they have developed inclusive supply chains with poor and vulnerable communities. Their stories prove that luxury need not be a destructive force. Instead, this book opens a window on a world where entrepreneurial pioneers can change the rules of the game.



Clean Up Your Act: The State of Sanitation in India (e-book)

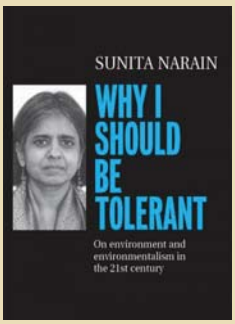
By Sushmita Sengupta, May 2016

Of the 1 billion people globally who have no toilet, India accounts for nearly 600 million. Fifty per cent of India's population defecates in the open. Well-designed communication and awareness campaigns connecting sanitation to health and women's dignity and outcome-based monitoring are vital. Community-centric programs under strong leadership can usher in a clean India.

Ensuring basic hygiene for all is a major task for the Indian government. Recent National Sample Survey Office data underlined the abysmal state of sanitation in the country, especially rural India where two thirds of the country lives. Huge discrepancies in data on toilets from different government departments mean that the impact of sanitation programs is difficult to gauge. The net result, however, is unimproved sanitation coverage and compromised health.

What is clear is that the programs had large leakages. Sikkim, Haryana and Kerala, nevertheless, excelled in sanitation programs, with Sikkim topping with 100 per cent sanitation coverage. Gujarat failed badly; the restricted role of beneficiaries, poor technological options that did not cater to their needs, and lack of awareness contributed to this state of affairs. The delivery mechanism was also faulty.

The recent Swachh Bharat Mission claims to be more focused on monitoring and is said to be filling lacunae. Success stories demonstrate that political and administrative will can eradicate open defecation.

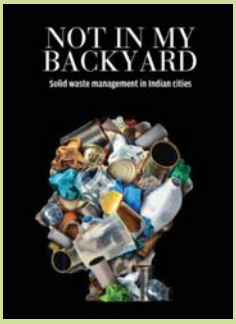


Why Should I Be Tolerant - On Environment and Environmentalism in the 21st Century

By Sunita Narain, CSE, May 2016

Through the cacophony of current public discourse comes Sunita Narain's refreshingly well-argued collection of essays on critical environment and development issues.

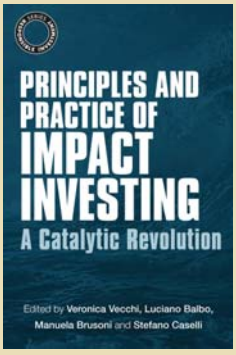
Written by noted environmentalist and *Down To Earth* Editor Sunita Narain, "Why I Should Be Tolerant" is a quasi-autobiographical book which chronicles the global development discourse from the 20th and 21st centuries. Narain, listed by Time magazine as one of the world's 100 Most Influential People, has captured the origin and context of the most important environmental issues of our times. Her essays delve into, among other things, the local-to-global connection, the problem of inequity, the "right" development model and most importantly, the role of the poor in the overall environmental discourse.



Not in My Backyard – Solid Waste Management in Indian Cities

CSE Publication, July 2016

We have been to some of the cleanest cities across the country and have rated them. The system for rating cities was to determine who is the cleanest of them all in terms of solid waste management. It is clear that cities that are segregating their waste have been able to effectively process and treat it and have achieved the status of zero landfill cities. While, some cities are doing - part segregation and part treatment. And then, there are a few cities, that are visibly clean but dumping their waste. We have incorporated all our findings in *our book*.



Principles and Practice of Impact Investing

Edited by Veronica Vecchi, Luciano Balbo, Manuela-Brusoni & Stefano Caselli, Greenleaf Publishing, July 2016

Impact investing is gaining global attention from society, governments and businesses. Society is increasingly viewing it as a new paradigm to deal with the economic crisis, curtailed public budgets and as an answer to the diversified needs of society. It now ranks high on the policy agenda of governments and international organizations and private investors are searching for new investment opportunities to channel the liquidity available.

This book is the first to look at impact investing as a "refocus" of venture capital to sustain the development of societal impact enterprises. Principles and Practice of Impact Investing collects chapters from international experts on the subject, discussing the foundations of the movement; analyzing leading international cases; and debating future trends in the field. It also includes interviews with some of the most influential stakeholders of impact investing across the world. The book is an inspirational and practical guide for actors and stakeholders to enable better understanding of impact investing.

Taking an international perspective, the chapters primarily deal with mature economies, setting it apart from the existing literature focused on emerging countries. The book will be of interests to practitioners and executives, as well as researchers and MBA students.

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Tata Institute of Social Sciences

http://campus.tiss.edu/guwahati/programs/master-degree-programmes/ma-ecology-environment-and-sustainable-development

Master of Business Administration in Natural Resource Management & Sustainable Development

Amity School of Natural Resources & Sustainable Development

www.amity.edu/asnrsd

Science and Management for Sustainable Living

www.bhoomicollege.org

Post Graduate Diploma Course in Sustainable Development (PGDM-SD)

http://bimtech.ac.in/

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The Global Open University

http://nagaland.net.in/

Post-Graduate Certificate in Sustainable Enterprise

Indian Institute for Sustainable Enterprise

http://theiise.net/pgcertinse.html

Postgraduate in Sustainability Management

Silver Bright Institute of Management

http://www.htcampus.com/college/silver-bright-institute-management-sbim

Post Graduate Diploma in Sustainability (Distance learning)

Chhattisgarh University

http://www.cguniversity.com/

Post Graduate Diploma

IGNOU- Indira Gandhi National Open University

http://www.ignou.ac.in/

MBA in Environmental Science

School of Management & Infrastructure and Development Studies

http://www.minds-india.org/

Master of Architecture (Sustainable Architecture)

Bharati Vidyapeeth Deemed University

http://www.bharatividyapeeth.edu/Campuses/Pune/default.aspx

MBA and MA in Sustainability Management

TERI University

http://www.teriuniversity.ac.in/

M Tech, MSc Environmental Science

Thapar University

http://www.thapar.edu/

PG Diploma

Entrepreneurship Development Institute of India

http://www.ediindia.org/

M Tech in Environmental Engineering

The National Institute Of Technology, Tiruchirappalli

http://www.nitt.edu/home/

Advanced Diploma in Bio Degradable & Solid Waste

Vellalar College for Women

http://www.vellalar.com/Arts/carrer-oriented-programmes.php

PhD in Environmental Science

Gauhati University

http://www.gauhati.ac.in/

MSc in Environmental Science

Dr Babasaheb Ambedkar Marathawada University

http://www.bamu.net/dept/environment/

Advanced Diploma in Energy

Vidya Prasarak Mandals Polytechnic

http://www.vpmthane.org/polywebnew/courses.html

BSc in Environmental Science

University of Calicut

http://www.universityofcalicut.info/

PhD in Environmental Science

Punjab University

http://puchd.ac.in/

MSc in Environmental Science

Bharathiar University

http://www.b-u.ac.in/

MA in Environmental Economics (Distance Learning Course)

Annamalai University

http://www.annamalaiuniversity.ac.in/

PhD in Environmental Bio-Technology & Solid Waste Management School of Environmental Sciences

Jawaharlal Nehru University

http://www.jnu.ac.in/main.asp?sendval=SchoolOfEnvironmentalSciences

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Symbiosis Institute of International Business

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- Commercial Managers
- Finance Controllers/Treasurers
- Corporate Planners
- Business & Accounting Analysts
- Sales & Trading Managers
- Structured/Trade Finance Managers
- Projects Managers
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From sectors:

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From sectors:
- Natural gas E&P
- Gas/LNG trade, shipping, transmission, distribution
- Government agencies
- Gas based power generation
- Gas/LNG related project finance, asset management, hedge funds, equity/fixed income
- Petrochemical
- Gas pipeline and high pressure transportation

Course Highlights

- Global gas/LNG market and market structure
- Current gas/LNG trading activities in Europe, USA, Asia Pacific, Africa, Atlantic and Middle East region
- Principles and formulation of gas/LNG Sales and Purchase Agreement (GSPA/SPA) and Gas Transportation Agreement (GTA)
- Contract terminology and construction - operational, commercial and legal basis of gas, LNG and Gas Transportation Contracts
- Gas/LNG pricing strategy and price indexation in a competitive gas market
- Contract negotiation - best practice techniques

Key Learning Objectives

- Background knowledge to facilitate gas/LNG sourcing decisions
- Understanding current trends of the gas organisation structure
- Knowledge of the underlying reasons for gas contract terms and conditions
- Sufficient knowledge enabling construction of gas, LNG and gas transportation contracts
- Expertise for contract negotiation
- Techniques of gas/LNG pricing in a competitive market
- Understanding of operation of trading hubs, spot and arbitrage
- Knowledge of transportation tariff determination methodologies

Contact Person: Reanne Lee
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Mastering the legal and commercial framework, contract negotiation, financing, risk and contractor relationship complexities of upstream and downstream EPC projects

- 10 - 12 May 2016, Kuala Lumpur, Malaysia
- 15 - 17 August 2016, Johannesburg, South Africa

Course Highlights

- Global and local legal and commercial framework in Asia, Middle East, Africa, Europe and the CIS
- Contract negotiation best practices
- Tips on contractual risk mitigation
- Contract financing and project structuring
- Contractor relationship management
- Clause-by-clause discussion based on an actual contract precedent

Key Learning Objectives

UNDERSTAND the current finance market for EPC contracts
MANAGE legal risks and environment for EPC contracts in the region
DISCOVER alternative procurement options for projects and the risks and opportunities associated with these options
DISTINGUISH new and effective contract negotiation strategies
ANALYSE the types of claims that may be made under EPC contracts and develop strategies to manage these claims
GAIN INSIGHTS into the best current dispute resolution options and the risks and costs associated with each option

Contact Person: Reanne Lee
Tel: +65 6325 0254
Email: reanne@infocusinternational.com

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- Qatari Diar

"A very thorough presentation with excellent real life examples and war stories from trainer."
- Exxonmobil

"The seminars were highly informative and trainer is clearly very experienced in the EPC and major projects worldwide. It was very relevant for us in our business."
- Qatar Petroleum

"Trainer spoke knowledgeably about matters that concern lenders, sponsors and borrowers bringing different perspectives to the discussion."
- KBC Bank NV

"Interesting explanation of every clause of the contract (i.e. the thorough assessment of an EPC contract)."
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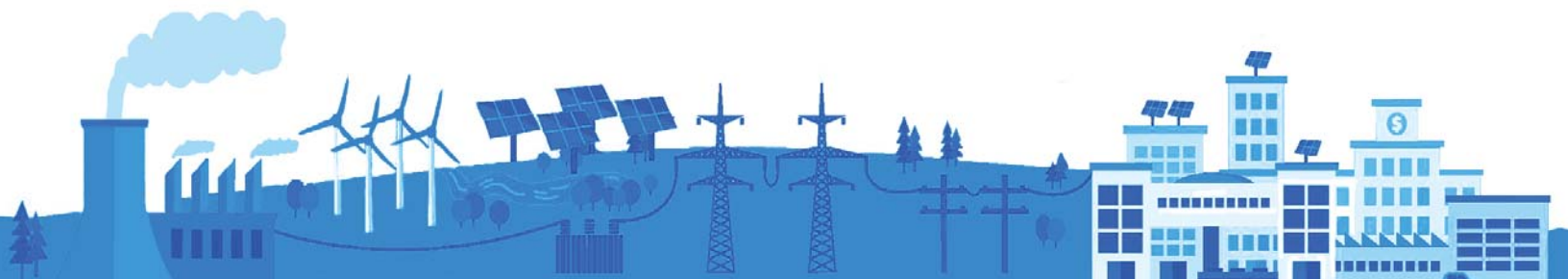

Events

Workshop on Solid Waste Management: Reinvention, Opportunities and Way Ahead
July 12, 2016, Silver Oak Hall, Indian Habitat Centre, Lodhi Road, New Delhi
swati@cseindia.org

International Capacity Building Workshop on "Make your own excreta flow diagram"
14th July 2016, Kumasi, Ghana
http://wedc.lboro.ac.uk/conference/index.html

Training Programme on Corporate Social Responsibility – Planning and Implementation
July 20-22, 2016, CSE, 38, New Delhi
digvijay@cseindia.org

Training on Urban Rainwater Harvesting System
July 24-26, 2016, Joydebpur, Bangladesh
Abdullahal-Muyeed@wateraid.org / srohilla@cseindia.org

How to Benefit from Data in Digital Age
July 26-28, 2016, New Delhi
kiran@cseindia.org

Three days conference on "E2E Trimodal Supply Chain - Tackling Future"
27, 28 & 29 July 2016, Crown Plaza, Gurgaon
Contact: cii.ice@cii.in

Training Programme for Environmental Managers
August 8-12, 2016, New Delhi
nivit@cseindia.org

Strategic Workforce Planning
15 - 18 August 2016, Johannesburg
Contact: http://www.infocusinternational.com/workforce

Project Financial Modelling
22 - 25 August 2016, Singapore
http://infocusinternational.com/financialmodelling
Contact: reanne@infocusinternational.com

Building Sense: Sustainable Building Policies, Practices and Performance
24th -26th August, 2016, New Delhi
inderjit@cseindia.org

Power Purchase Agreement (PPA)
30 August - 2 September 2016, Johannesburg
1 - 4 November 2016, Singapore
http://infocusinternational.com/ppa

Training Programme on Mainstreaming Sustainable Urban Water Management
September 13 – 16, 2016, Kigali, Rwanda
fidele.nteziyaremye@mininfra.gov.rw / mahreen@cseindia.org

IFAT India 2016 - India's Leading Trade Fair for Water, Sewage, Refuse and Recycling
September 28 – 30, 2016 @ Bombay Exhibition Centre (BEC), Mumbai, INDIA
bhola.mandal@mmi-india.in or visit www.ifat-india.com

International Training Programme on Water Sensitive Urban Design and Planning
October 3 - 6, 2016, Nairobi, Kenya
wamiti@kewi.or.ke / mahreen@cseindia.org

Succession Planning, Performance Management, and ROI on Training & Development
10 – 13 October 2016, Johannesburg
http://www.infocusinternational.com/successionplan/

Indian Conference on Life Cycle Management (ILCM) 2016
17-18 October 2016, Federation House, Tansen Marg, New Delhi
http://indialca.com/upcoming-events.html, ilcm@ficci.com

PowerWeek
7 – 11 November 2016, Singapore
Contact: http://www.power-week.com/

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