

IndiaNow

December 2010-January 2011 | Volume 01 | Issue 5

B U S I N E S S A N D E C O N O M Y

RURAL UPDATE

YOUNG INNOVATORS CHANGING
THE FACE OF FARMING IN INDIA

INNOVATION CORNER

TECH GRADUATE'S LOW-COST PCs
REVOLUTIONISING COMPUTING

EMERGING ENTREPRENEUR

DESIGN GRADUATE PIONEERS
UNIQUE LEARNING CENTRES



INNOVATING FOR SUCCESS

For needs that are Indian, solutions that are also Indian.
From the smallest of farms to the largest of laboratories,
each asking: "How can I do this better?" And the
answers are flowing in.

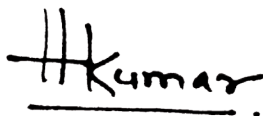
One Billion Innovators Everyone is thinking of newer ways of doing the same thing.

One billion plus, and counting! India's population is now its mightiest asset. Its young and working population is both an ocean of a resource, and a burgeoning market that corporations know they must innovate for. The nurturing ecosystem required to boost and sustain innovation exists—the industry, the government, the educational system, the research and development apparatus and the consumer, all work in tandem. The government has rightly called this the decade of innovation.

Often, in rural India a farmer comes riding proudly on a vehicle which is a happy and ingenious mix of parts of a bullock cart, maybe a water pump, a fan and whatever else is available. And yes, it works. If he can improvise, he can innovate, and that's what the Indian farmer has shown repeatedly, whether in designing a new lightweight tractor, developing new seed varieties, an amphibian bicycle that can float just as well as it can ride, or a refrigerator that needs no electricity to run. In the age of a nation, there comes a time, when people look inward for solutions, instead of constantly looking around. That comes from social and intellectual maturity. India has shown both in good measure.

It is said that when people return to their roots, they prosper. No wonder then, that Rikin Gandhi, a bright young technologist, who went to the Ivy League Massachusetts Institute of Technology, came back to India and is now helping farmers share their knowledge digitally. From technologists to farmers, everyone is thinking of newer ways of doing the same thing, or building solutions to issues in their immediate vicinity.

That is the spirit of innovation, and it is infectious.



Hemant Kumar

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VOICE OF A VISIONARY

If you shut the door to all errors, truth will be shut out

Rabindra Nath Tagore



National ROUND-UP



PHOTO BY PHOTOS.COM

Near Double-Digit Growth IMF upbeat on India's GDP

THE INTERNATIONAL Monetary Fund has projected that the Indian economy will grow by 9.7 per cent in 2010. It is the result of strong domestic demand that has powered a remarkable industrial recovery, said the IMF in its recently released World Economic Outlook report.

Advanced economies, on the other hand, are projected to grow by just 2.7 per cent in 2010 and 2.2 per cent in 2011, according to the report.

"India's macroeconomic performance has been vigorous, with industrial production at a two-year high. Leading indicators -- the produc-

tion manufacturing index and measures of business and consumer confidence -- continue to point up," the report said. "Robust corporate profits and favourable external financing will encourage investment," it added.

On a recent visit to India, the Managing Director of IMF, Dominique Strauss-Kahn, told reporters: "India is becoming one of the leading powers in the world. It is really an economic powerhouse...Your results here in terms of economic growth and also in terms of inclusive growth are really amazing."

DATA BRIEFING

9.7%

Growth rate of Indian economy in 2010: International Monetary Fund



Net Profit Internet users in India will treble by 2015, making the country better connected, better prepared.

BY 2015, nearly 240 million Indians will have access to the Internet, almost three times as many as now, says management consulting firm, The Boston Consulting Group (BCG). Its recent report, 'Internet's New Billion', says that Brazil, Russia, India, China and Indonesia (BRICI) will lead the world in the growth of internet penetration. A little less than half of all the world's population lives in these countries. The mobile 3G network is expanding and rural networks are developing. As a result, the net-connected population in India, will grow at a CAGR of up to 20 per cent, said the report. By 2015, Internet users will cover nearly 20 per cent of India's population. The number currently stands at 81 million, added the report. The internet is more likely to be available on the mobile phone, rather than on computers.

By 2015 the BRICI countries will be home to 1.2 billion internet users, double their current number and thrice the number in the US and Japan combined. According to a 2009 World Bank study, economies advance as the number of mobile phone users increases.

THEY SAID IT NANDAN NILEKANI

Speaking recently on the delivery of India's hundred thousandth Unique ID card, to a villager in Tumkur in Karnataka, Nandan Nilekani, Chairman of the Unique Identification Authority of India (UIDAI).

“Crossing one lakh enrolments in this short span of time is a welcome milestone for us. And the credit for this goes far beyond the UIDAI team. A lot of people...are working together, and have put in substantial effort towards getting the enrolments done.”



UPDATE ON RESEARCH STUDIES



Indo-US R&D Pact. During US President Barack Obama's recent visit to India, the two countries agreed to conduct joint research on eco friendly technologies. They will set up a Clean Energy Research and Development Centre for work on solar energy, second generation biofuels and building efficiency technologies.



Chennai—in the driver’s seat Port city rapidly emerging as automobile hub

TAMIL NADU'S capital Chennai is emerging as one of the top 10 global automobile manufacturing centres. By the end of this fiscal (2010-2011), it will have an annual installed capacity of producing nearly 13 million cars and about 350,000 commercial vehicles.

According to the government of Tamil Nadu's Department of Industry, Chennai boasts of six car projects, namely Ford, Hyundai, BMW, Renault, Nissan and Mitsubishi-HM. Hyundai has made it the manufacturing and export hub for its small cars—Chennai is the company's largest base outside Korea. Caterpillar USA, Komatsu & Koebelco

of Japan and Doosan of South Korea chose Chennai to set up their large earth moving equipment manufacturing plants. Studies by Hyundai, Nissan and Ford found Tamil Nadu the most cost-effective location for manufacturing cars.

It is also the largest automobile and auto components exporter. Of India's total automobile export earnings of US\$2 billion from 2007 to 2009, exports from Chennai alone earned more than a billion dollars.

The Automotive Mission Plan 2006-2016 says, India will be the world's destination of choice for automobile design and manu-

facturing. By 2016, the output will touch US\$145 billion, giving the sector a more than one-tenth share of the gross domestic product (GDP).

On its website, the state's department of industries says the government's policy of offering attractive packages to automobile and component manufacturing firms that invest more than US\$990 million, has brought in huge investments.

Between 2006 and 2009, it attracted investments of almost US\$5 billion, almost five times the investment that came in from 1991 to 2006. The Centre has also set up the ambitious US\$ 100 million National Automotive Testing R&D Infrastructure Project near Chennai, to introduce world-class automotive safety and performance standards to the industry.

By 2016, India's automobile industry will net US\$ 145 billion: Automotive Mission Plan 2006-2016

SOUND BITES



“Thinking is progress. Non-thinking is stagnation of the individual, organisation and the country. Thinking leads to action.”

—Dr. A.P.J. Abdul Kalam



“We belong to an age where

it does not matter whether you are a man or woman, as long as you are good at what you do”

—Naina Kidwai, Country Head, HSBC India



“Good education is crucial

to building a just, equitable, humane and sustainable society.”

—Azim Premji, Chairman, Wipro Technologies

BANKING UPDATE

Good Account Indian banking on high growth path

THE INDIAN banking industry is expected to grow as much as 20 per cent a year, according to a survey by consulting firm, McKinsey. The industry will improve its profitability with a return on equity of more than 18 per cent, said the report conducted for the Indian Banks' Association.

Favourable demographics, rising aspirations of corporate India, strong regulatory push, technological innovations, rising productivities and economies of scale are driving the growth, it said. According to the report, there is a value creation opportunity of more than US\$55 billion in incremental revenue, by 2015.

Besides, credit rating agencies like Standard and Poor's also confirmed this when they raised

their rating for the Indian Banking industry from 'Negative' to 'Stable' in September this year.

Earlier this year, international ratings firm Standard & Poor's (S&P) had revised India's outlook from negative to stable. It had cited



India's improving fiscal situation and strong economic growth for having revised the rating. S&P had said that the upward revision in outlook was based on expectations that the economy would grow at 8 per cent this year, one of the highest among the major economies in the world.

"The revision in outlook reflects our view that India's fiscal position could now begin to recover and that its economy will remain on a strong growth path," an S&P release had said.

UPDATES

Higher Connections



MOBILE TELEPHONY This year, mobile connections in India will exceed 660 million, growing nearly 28 per cent over the last year, says market research firm Gartner Inc. Revenue from mobile services will also touch US\$ 20 billion by the end of the year, again a near 20 per cent jump over 2009.

In 2010, mobile penetration in India will reach 56 per cent. But by 2014, Gartner says it expects the coverage to be nearly 82 per cent, powered mainly by the spread of mobile telephony into rural India and the availability of affordable

handsets. By 2014, nearly 206 million handsets will be sold in India per year. Last year, this figure was 117 million, and this year, it will climb to nearly 140 million, says Gartner.

India is an important market for manufacturers, as it contributes about 10 per cent to the worldwide sale of mobile handsets.

The entry of Indian players focussing on value conscious consumers has intensified competition in the market. A large volume of mobile device sales in India come from the low-end segment, Gartner adds.



RESOURCE TRACKER

Remittances Rise, Again India retains top spot in remittance receipts

MORE THAN eleven million Indians working abroad sent home US\$55 billion this year, making India the top recipient of remittances, says a recent World Bank report.

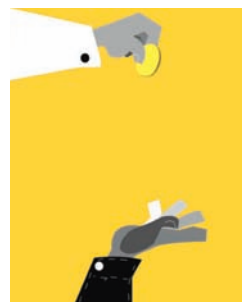
According to the bank's

report Migration and Remittances Factbook 2011, remittance flows to developing countries is expected to reach \$325 billion by the end of this year—an increase of 6 per cent from the 2009 level. The figure is

likely to exceed to \$370 billion in two years' time, up from \$307 billion in 2009, adds the report. Worldwide, remittance flows are expected to reach \$440 billion by the end of this year.

According to the report, India again leads the list, followed by China, Mexico, the Philippines, and France.

Between April and September, 2009, remittances to India



touched US\$27.51 billion, largely unaffected by the global financial meltdown, a recent Reserve Bank of

India (RBI) survey has said. In the same period in 2008, the remittances were a little more than US\$ 26 billion, said an RBI press release.

Remittances remained a resilient source of external financing during the recent global financial crisis and were steady despite the pangs of financial reconstruction in the developed world, the World Bank report said.

INDIA WATCH

\$18
billion
Indian
exports in
Sept, 2010

Area	Population	Male	Female	Population Density	Urban Population
3,287,590 sq km	1.175 billion	613.75 million	552.15 million	361.1 per sq km	350 million

Key performance indicators of the Indian economy, with patterns, trends and forecasts

India's Economic Outlook Projection

Fiscal Year	FY 07	FY 08	FY 09	FY 10
GDP Growth	9.40%	7.30%	5.40%	8.50%
CPI	6.40%	9.30%	5.50%	14.44%

Source - RBI website (data taken in September 2010).

Mean Probability Pattern of Real GDP Growth Forecasts

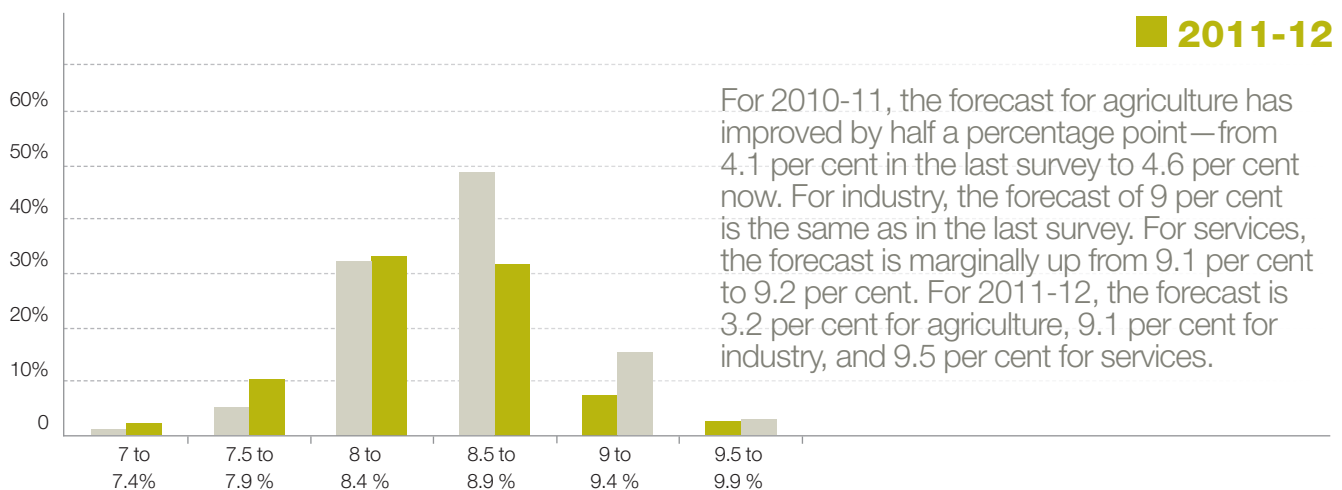


Chart 1: Year-on-Year Growth IIP

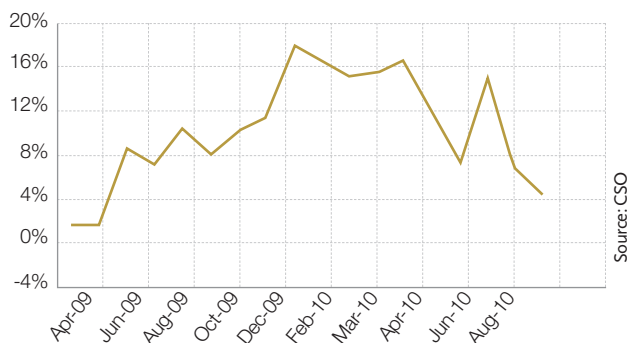


Chart 2: Year-on-Year Growth in Sectoral Indices

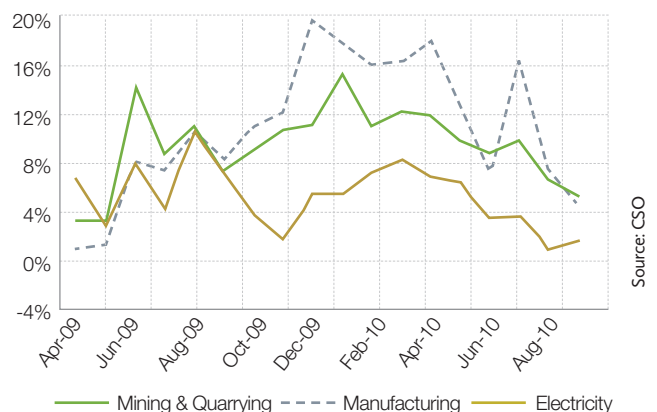


Chart 3: Contribution to IIP Growth in September 2010

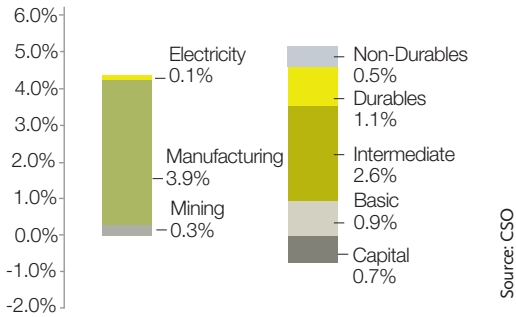
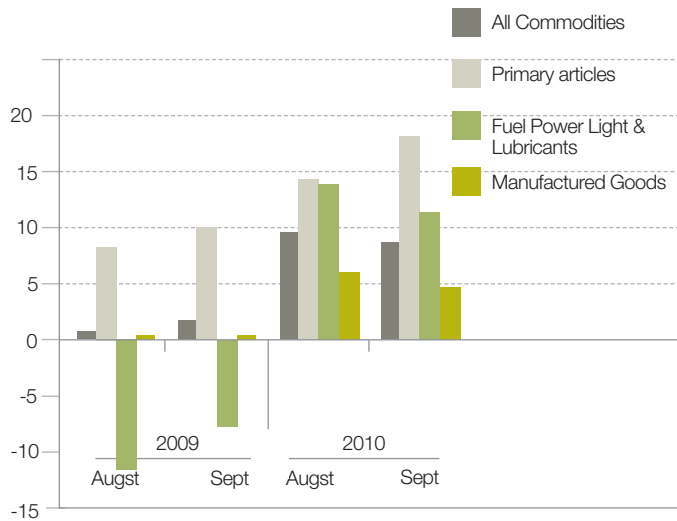


Chart 4: FDI & FII Inflows



Monthly trends in Wholesale Price Index- monthly average (% change)

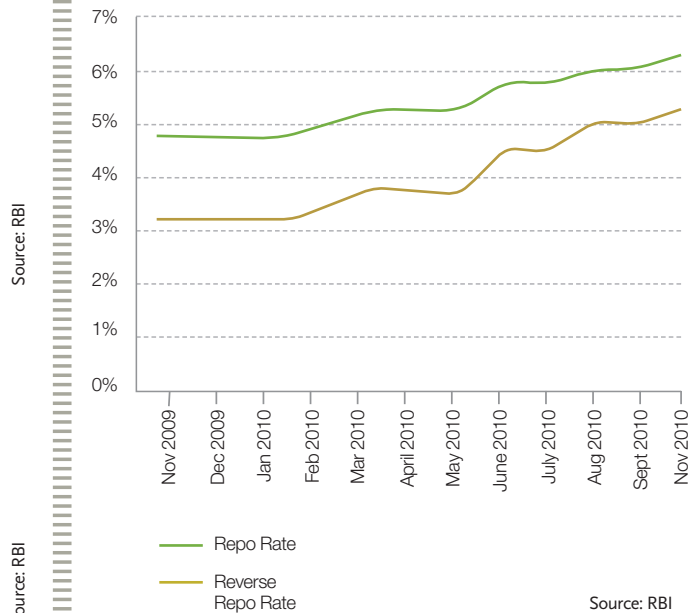


Key Macroeconomic Indicators

Cash Reserve Ratio



RBI Policy Rates

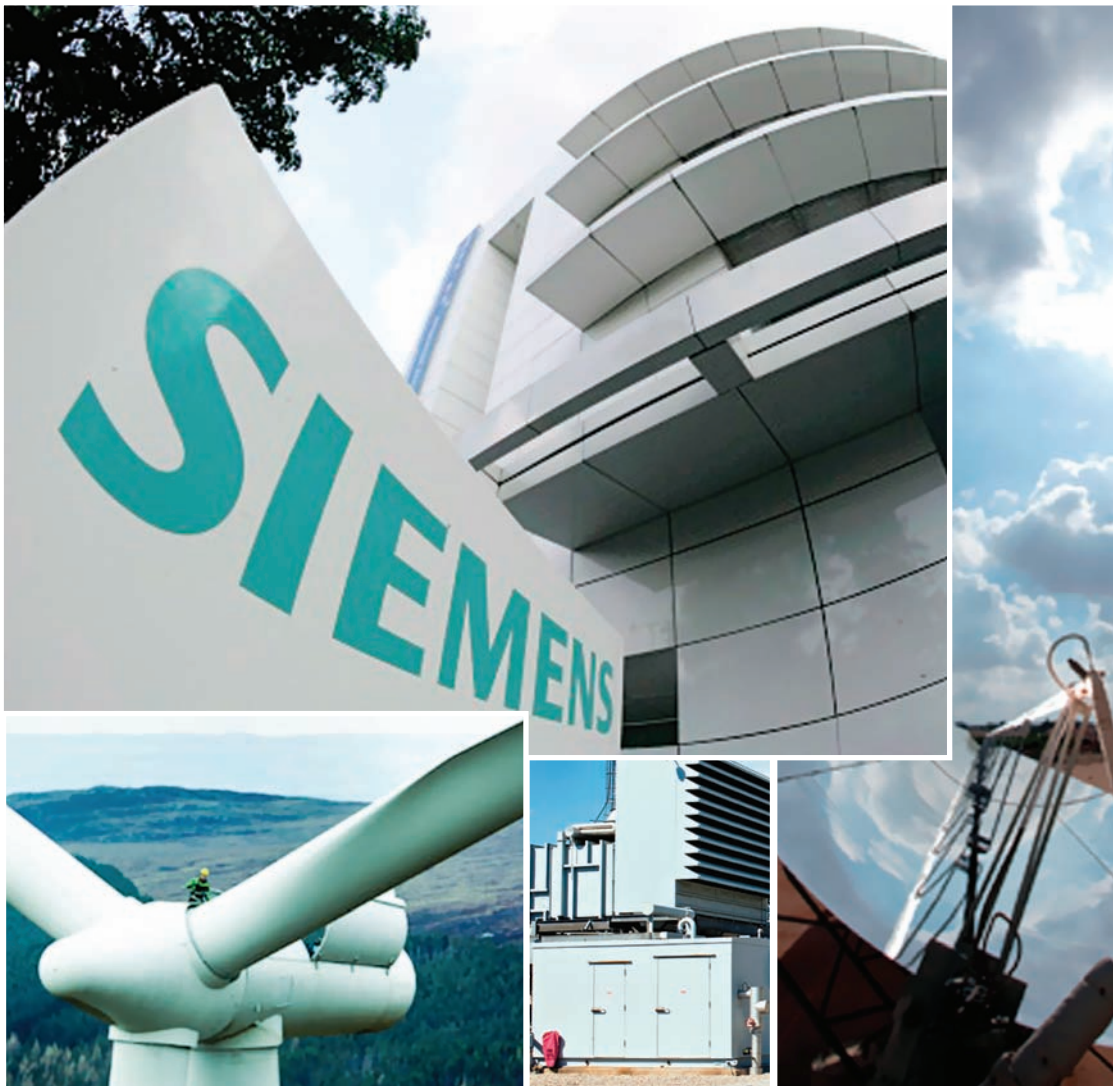


Stock Market

Date	BSE Sensex	% Change	S&P CNX NIFTY	%Change
1.09.10	18,205.87	-3.19	5471.85	0.75
1.10.10	20,445.04	12.35	6,143.40	12.29
1.11.10	20,355.63	-0.45	6,117.55	-0.43
1.12.10	19,850.00	-2.49	5,960.90	-2.58

Currency Exchange Rate

Date	INR/USD	INR/GBP	INR/JPY	INR/EUR
July 10	46.58	72.87	53.51	60.96
Aug 10	46.89	72.51	55.33	59.47
Sep 10	44.95	71.46	53.92	61.38
Oct 10	44.43	70.3	53.34	61.12
Nov 10	44.95	71.29	55.1	61.72



COMPANY DASHBOARD

▲ PROFIT AFTER TAX (2009-10): INR 8,272 million (approximately US\$182 million), up by 27%

▲ NUMBER OF EMPLOYEES: 17,500

▲ MANUFACTURING UNITS: 21

FULL STEAM AHEAD

For more than three-fourths of a century, global technology giant—Siemens—has had a close association with the Indian market. It is now geared to partner in the country's big leap into the future. BY SHREYASI SINGH

FEW MULTINATIONALS can claim to have a relationship with India that dates back nearly 150 years. It was in 1867 that Werner von Siemens, founder of Siemens Limited, personally supervised the laying of the first telegraphic line between London and Calcutta. The company opened its first India office in 1922. Today, Siemens is a leading provider of industry and infrastructure solutions, with an aggregate business volume of US\$2.7 billion—the bulk of which comes from the energy and health care sectors. Siemens has a nation-wide sales and service network, 21 manufacturing plants, nearly 500 channel partners, and employs more than 17,500 people in India.

“Siemens is on a growth upswing. This year turned out to be quite good. Our short-cycle product business grew and our project business was on track. Our technology, as well as our additional focus on the base-level segment and environment portfolio, gave us an edge in the competitive market environment. Our initiatives to ensure operational excellence, robust portfolio and customer-and-employee centric approach supported our results,” said Dr Armin Bruck, Managing Director, Siemens. The company’s profit after tax for 2010 grew by 27 per cent over the last year, and stood at US\$ 184 million.

In the last 10 years, Siemens has done defining work in India. In 2003, it completed India’s largest high voltage power transmission project. In fact, this was the second-longest such transmission line in the world, covering a distance of 1,400 kilometers. A year later, the company opened a research centre in India. In 2006, Siemens won the bid to provide a complete security solution and intrusion protection system for Bengaluru International Airport Limited.

Siemens is determined to continue looking at India as the geography for innovation and experimentation. In September 2010, it began operations of a renewable energy division at Vadodara, Gujarat. “The market outlook for renewable energies in India is positive. We see a potential for the wind and solar business in the near future,” says Bruck. “The setting up of the Vadodara office marks our foray into the solar and wind business in India.” India has one of the most ambitious solar energy development plans in the world. The country is

looking to generate up to 20 gigawatts (GW) of solar power by 2022 as part of the National Solar Mission. This presents a great opportunity for Siemens, since it has experience in the Concentrated Solar Power (CSP) and the Solar Photovoltaic (PV) businesses, globally.

Siemens has said it plans to invest US\$ 346 million in India over the next three years, a third of which will be funnelled into wind turbine production. It announced a wind turbine manufacturing site in India earlier this year and the factory is expected to be established by 2012.

Siemens AG has also made India a major hub for the research and development of medical diagnostic tools, using computer-aided design (CAD). The US-based Siemens Medical Solutions, which established a CAD Group in 1995, has more than 60 per cent of its scientists working in Chennai and Bengaluru. It employs more than 100 engineers and scientists, who work with professionals of the information technology and diagnostics research projects of Siemens Health care.

Siemens is also constructing the country’s first Formula 1 race track close to Greater Noida, near Delhi. The US\$ 28.5 million track is more than five kilometres long and should be ready by next year. It is being built to be among the world’s top five race tracks.

Vijay Paranjape, Director of Siemens, says, “As a global leader with vast experience in numerous F1 race tracks around the world, and proven expertise in this sector, this prestigious project provides us with yet another opportunity to bring state of the art sporting systems to India that match

international standards.”

Clearly, the company has continually striven to set benchmarks in India. It is investing heavily to make its India offices greener by 2012. The company is examining its seven Indian company-owned offices with regard to environmental protection and energy consumption. The goal is to reduce energy consumption and CO2 emissions by at least 15 per cent. This will be equal to planting 9,000 trees.


Business magazine Business Week had ranked Siemens as number one company in its annual rating of Asia’s 50 companies in 2008. Siemens was also ranked number one in corporate reputation by The Wall Street Journal in its survey of Asia’s 200 most admired companies. ■

“OUR TECHNOLOGY, AS WELL AS OUR FOCUS ON THE BASE-LEVEL SEGMENT AND ENVIRONMENT PORTFOLIO, GAVE US AN EDGE IN THE COMPETITIVE MARKET ENVIRONMENT”



ILLUSTRATION BY BINESH SREEDHARAN





INDIA INNOVATES

An entire nation is designing indigenous solutions to local needs. As the economy cruises along, enterprise is meeting ingenuity. Innovation is happening. BY SHUBHA SINGH

Bhanjibhai Mathukiya lives in Kalavad, a tiny coastal village adjoining the sprawling Gir National Park in Junagadh, Gujarat. For years, he tilled his two-acre land with a heavy-duty commercial tractor that was too cumbersome to manoeuvre and too expensive to run. He knew he needed a smaller, lighter, quicker tractor. Speaking in chaste Gujarati, the 70-year old told India Now over the phone, that his huge tractor “felt like a gigantic ship in a tiny pond. I wasn’t getting much out of it but I was spending a lot on it.” He needed a smart machine, but who would build him one? It took him eight grueling years, but he built one himself. And now, he has a US patent for his agile, adaptable and much lighter Vanraj 10-horse power tractor.

It was taking Amrutbhai Agrawat, also of Junagadh, too much time and too much effort to

spread fertiliser over his fields. His entire family had to toil under the scorching sun for days at times, just to ferry armloads of the fertiliser from the back of a bullock cart to the fields, and back, hundreds of times a day. Agrawat could rent a motor-operated machine, but it was too expensive for him. What he needed had to be cheaper than the machine and less punishing than the manual grind. He designed Aaruni, a lever-operated cart that would tilt like a dumper. Now, he sits on his cart and spreads fertiliser all over his field, and the fields of others.

In the eighties, when open heart surgery was still a rarity in India, researchers at Kerala’s Sree Chitra Tirunal Institute for Medical Sciences and Technology were hunched over their workbenches, determined to design an artificial heart valve. There were valves in the international market, but they were frightfully expensive. India needed the valves by the hundreds of thou-

sand. At that time, six in every 1000 Indians were afflicted with the potentially fatal Rheumatic Heart Disease (RHD) that destroys valves of the heart. It is curable, but needs an open heart surgery to replace the damaged valve with an artificial one. But the surgery is risky, expensive and highly specialised. The valve itself costs thousands of rupees. It took time, but in 1990, the first such valve from the institute was implanted in a needy patient's heart. Several thousand grateful people are now living healthy lives with the valve securely inside their hearts.

Unlettered honey seller Saidullah of Motihari in Bihar's flood-prone East Champaran district had grown up fearing the monsoons and the floods they brought each year. But, he decided he wasn't going to suffer silently. In three straight days of hard work, he fabricated his now famous amphibious bicycle Noor, named after his wife Noor Jehan. Saidullah added four rectangular air floats and two fan blades to his bicycle, and it was ready to float, not only forward, but also backwards. The cost: not more than US\$318. Now, flood waters can't bring life to a standstill, not where Noor is available. Thousands of websites worldwide and magazines and newspapers have written millions of words on Saidullah and Noor. "I have no idea about that, because I don't have the Internet, nor do I read, but I hope my work will save lives wherever it can," said an excited Saidullah when we spoke with him over the phone.

America's prestigious business magazine Forbes was looking for names of people, places, ideas and products the world will be talking about next year. Instead of brainstorming in-house, the magazine decided to "throw it to the crowd," asking its readers to list the 50 most important people they thought the world would need to know in 2011. Writing on the magazine's website, Stanford and Princeton-educated deputy editor Nicole Perlroth said the person featured third on the list was Mohammad Saidullah. She said she

“We plan to set up a billion dollar fund for innovation in India... And we want to seed the right kind of innovation.”

— **Sam Pitroda**
Chairman, National Innovation Council.

learned of Saidullah through Prof Anil Gupta of the Centre for Management in Agriculture at the Indian Institute of Management (IIM), Ahmedabad.

Bharat Ratna Prof Gupta created the Honey Bee Network for innovation. It brings together innovators, farmers, scholars, policy makers, entrepreneurs and non-governmental organisations (NGOs). The network ensures that the traditional 'knowledge holders' and grassroots innovators are acknowledged and rewarded. In 20 years, the network has documented more than 100,000 ideas, innovations and traditional knowledge practices. Prof Gupta also set up SRISTI, an organisation that protects the intellectual property rights of innovators at the grassroots level. Prof Gupta is also executive vice chair of the government's National Innovation Foundation (NIF). With a corpus of US\$4.5 million, its mandate is to scout, support and add value in n o v a -

who do not have money, education or institutional support, but whose ideas are interesting. It also protects their IPR, provides micro venture capital, business development support, and disseminates the ideas.

"The Indian experience shows that creativity and innovation are not traits that only the rich and highly educated have. Anyone who is struggling with a problem, and has a desire to improve his condition, can experiment. Not all experiments can succeed, and not all experiments will lead to entrepreneurship. So we began looking at even the failed experiments," Prof Gupta told India Now. "It is important to realise that minds of the people on the margin, are not marginal minds. They may not have the acumen to convert their ideas into enterprise, but they must not stop thinking. In most cases, their knowledge and ideas are the only wealth they have. It's the only resource in which the poor are rich, so to say," added.

Unique ID For All

Aadhaar, the ambitious, hi-tech, exercise of giving every Indian a unique identification number is a landmark of sorts. No country has ever undertaken to build a national registry at this scale and accuracy. The Unique Identification Authority of India (UIDAI) has already started issuing these 12-digit cards, whose number is stored in a highly secure server called the Centralised ID Repository (CIDR) and linked to each resident's photograph, fingerprints and iris scan.

absurd—it's not true. And we have proved it beyond doubt. Complete autonomy, full faith and complete success. The ecosystem of innovation in this country permits people to take initiative and make things happen."

Organising Innovation

Recognising that innovation will propel growth, the government has named this decade the Decade of Innovation. The Prime Minister has also set up the National Innovation Council (NIC), headed by industrialist-technocrat Sam Pitroda. NIC has an entire galaxy of distinguished Indians as its members. Some of them include thought leader, writer and member, planning commission Arun Maira; astrophysicist, former head of the Indian Space Research Organisation (ISRO) and also

The National Innovation Foundation has filed 250 patents, 5 of them have been granted in the US.

About the NIF, he said: "This is the only organisation which has filed 250 patents, five of them granted in the US. If we can get a patent in the US, what does it mean? It means there isn't such existing idea, technology or product. Otherwise, they wouldn't grant the patent. Take Mathukia's tractor, Vanraj. It can easily switch between being a 3-wheel or 4-wheel vehicle, depending on the soil, terrain or crop. Global giants in this field had not even considered this need, but it existed. Why else would Mathukia go to such lengths to make it, in the first place? Therefore, he got the patent in the US."

About the government and its commitment towards such innovation, Prof Gupta says: "We have had absolutely no interference from the government, at all. The notion that if you take money from the government, you must accept their interference as a prerequisite, is

member, planning commission Dr K Kasturirangan; and chairman of the National Innovation Foundation Dr Ramesh Mashelkar. He is former director general of the Council for Scientific and Industrial Research. NIC will define policies, recommendations and methodologies to implement and boost innovation performance in the country. Pitroda is developing a national strategy on innovation with a focus on an Indian model of inclusive growth. The idea is to create an indigenous script of development suited to Indian needs and challenges.

"We plan to set up a billion dollar fund for innovation in India," an excited Pitroda told India Now. "We will see how it goes, it may be US\$500 million, to begin with. But it's going to be a big fund. And we want to seed the right kind of innovation. It will all depend on how we can energise a large number of young talented people about this idea of inclusive growth. Innovation for the bottom of the pyramid, the Indian model of innovation, low cost, affordable solutions, sustainability... all of these are going to be critical ideas, but these things take time. It is not a two-year cycle, it is a ten-year cycle, even more."

Pitroda said NIC plans to set up a whole network of innovation councils going down from the national level to the state level and even lower down to the districts. "I believe the next ten years are going to be the most critical ten years in the history of modern India. Because we have gained from telecom, IT, from the economic liberalisation, and now we have the needs of a youthful nation in the twenty-first century," he added.

Identifying and encouraging innovators is a good thing, says IIM's Prof Gupta. But, he says, it is not enough. It is important to bring what he calls the three vectors of the triangle together: innovation, enterprise and investment. This is very important. "This is the golden triangle for rewarding creativity," he says. "Why should big

capital operate only where markets exist. What about ideas, technologies and products for which the need exists, but there isn't a ready market yet. For them, someone has to take the risk. To start a micro venture fund we set up the Grassroots Innovations Augmentation Network (GIAN), an incubator of traditional knowledge and innovation. NIF has also pooled traditional knowledge. The first product that

went into the market was an herbal cream for treating eczema, developed by pooling the knowledge of six communities in Gujarat. "All the six get a royalty cheque every year. People with traditional knowledge can now aspire to have their knowledge turned into a product," he adds.

This is precisely how mechanical engineer and innovator Madhav Sawant of Goregaon in Mumbai developed

his unique product. Inspired by the firefly, he went into the principle and materials behind the insect's light. After years of research, he developed a tile that glows in the dark. The Council for Scientific and Industrial Research and the Department of Science and Technology helped him with the money for research. The Indian Institute of Technology (IIT), Mumbai, also helped him with precise measurements. Sawant told India Now that his tiles are in a sense solid state batteries that store photons instead of electrons. "Just as solar photovoltaic cells store current from sunlight, my tiles absorb and store the ambient light and emit it when it's dark. Extracted from a mineral, the material is hundred per cent safe and will never degrade."

Sawant said that developers Mahindra Life Spaces have built a group of eight 30-storey residential towers in suburban Mumbai, and have coated their corridors with Sawant's wall paper. "It will give off enough light to keep corridors and staircases illuminated," said Sawant. He says he is now looking for a venture capitalist who can fund his next level of investment to make his innovation widely available.

Innovation Mechanics

On the nuts and bolts of making the innovation dream a reality, Sam Pitroda said it is a huge task, but not impossible. "There are 700 million cell phone connections nationwide. We are now a nation of one billion connected people. We will use the power of the Internet, digital training and education tools to the maximum."

Academicians and entrepreneurs agree that innovation is an entire ecosystem that needs nurturing and constant stoking. Dr Anil K Wali, Managing Director, Foundation for Innovation and Technology Transfer (FITT),

INSPIRING SUCCESS STORIES

Toying with Ideas

Arvind Gupta:

After graduating from IIT, Kanpur and working for truck maker Telco, Arvind Gupta had had enough of the adult world. He wanted to make toys, from trash. Why trash? "Because, if you look close enough, there is a wealth of opportunity in trash," says Gupta. "You will find wires, foil, tin, aluminium, discarded motors, buttons and almost everything you will ever need. You can make all your toys from trash. And I wanted to show children the wonders of science and life through the medium of toys and models." And that's precisely what he has been doing for more than twenty years. He has also written more than one hundred books and made nearly as many films on science. On his website www.arvindguptatoys.com, he has listed toy after attractive toy that he makes from discarded everyday objects like wires, pouches, cans and a host of other items.

Using just discarded plastic bottles, some foil, wires, cables, cellophane, and a whole lot of creativity and imagination, he makes stunning models to explain basic principles of science, like how pumps work, what are electricity and magnetism, Newton's laws, what is pressure, uses of light, and so on. There isn't a toy Gupta cannot make, and it

is all from discarded materials.

In the introduction to his book *Little Toys*, Gupta says: "It is an irony of modern consumerism that junk products are packed in tough cartons. While the frail human body consumes and digests the junk, it is the environment that has to grapple and reckon with the tough, non-biodegradable waste. Film-roll cases can be transformed into a high-efficiency pump, tetra packs into measuring cylinders or butterflies, packets of cigarette into merry-go-rounds."

An Abacus made from a sneaker sole and some pencils; a mechano set using matchsticks and bike valve tubes; a train made from batteries, buttons and drawing pins—these are just some of the fantastic toys Gupta has made from trash. But what is even more beguiling is that he shows you exactly how to make each toy or model that he has created. On his website, you will find pictures of all his toys and models, complete with graphic illustrations of the materials needed and how to make them, step-wise.

If this how science, math, geography and life can be taught, no child would ever miss school, no learning would ever be forgotten.

INSPIRING SUCCESS STORIES

Breath of Life

Dr Arti Kinikar:

When the swine flu broke out last year, the government-run Sassoon Hospital in Pune, Maharashtra, was flooded with patients, mostly children. But the doctors were wringing their hands and praying for a miracle—there were 900 patients in need of critical care, and the hospital had only four life-saving ventilators. Associate professor of paediatrics and head of the paediatric critical care unit, Dr Aarti Kinikar, however, made the miracle with her own hands. She saved hundreds of lives by fashioning a ventilator out of local materials, a clear-thinking, sharp, scientific mind and a heart that cared.

She realised that the patients were going into respiratory distress—their lungs were collapsing from the rapidly spreading infection and its complications, and if they did not get vital oxygen, she would lose them. But delivering oxygen to collapsing lungs is the task of a machine through a technique called nasal Continuous Positive Airway Pressure (CPAP). There weren't many machines and there were

too many lives at stake. So, she picked up a bottle of saline solution, an IV fluid transfusion set and a nasal canula, a tube that would go into a child's nostril. In no time, she had made a ventilator that worked just as well as a factory-produced one that costs more than US\$11,000. Her device cost less than five dollars! Both devices did the same thing—oxygenated tormented lungs. Dr Kinikar's device, the nasal bubble CPAP, saved the lives of hundreds of children. She also gave them the life-saving drug Tamiflu, "but that in itself does not save lives. It was an emergency and I needed to something immediately. Collapsing air sacs need to remain open with oxygen, otherwise they will collapse and the patient won't survive. Exhaling forms bubbles in the saline, keeping the air sacs from collapsing. I call them bubbles of hope," Dr Kinikar told India Now, still feeling the surge of emotions from having witnessed the trauma and felt that helplessness. Using warm water for humidified oxygen, she created a circuit, a method now routinely used at her hospital, and many others. The remarkable indigenous device has turned out to be a viable alternative to a ventilator. And Dr Arti Kinikar has not stopped thinking on her feet.

at the Indian Institute of Technology (IIT), Delhi, says: "There are multiple actors in this and that includes publicly funded research laboratories and academia, new economy businesses, traditional industry segments, the government, NGOs and numerous individual innovators and entrepreneurs." FITT connects institutional research with industrial entrepreneurship.

Rishiksha T. Krishnan, Professor of Corporate Strategy, IIM, Bengaluru, told India Now that India has already shown innovation and leadership in the widespread, low-cost diffusion of telecom services and information technology services. He said at the national level, the National Rural Employment Guarantee Programme (NREGP) is providing families below the poverty line with an assured income in return for contributing to development work, close to where they live. This, he says, must be one of the largest programmes of its kind in the world. That's uniquely Indian.

Krishnan talks with pride about Sheikh Jehangir of Jalgaon, Maharashtra. "Sheikh, 50, is an unlettered car painter, he has no vocational training, and had to start earning at eleven to support his family. Yet, he owns a

“We're a nation of 1 billion connected people. We'll use the web and digital tools to the maximum”
— Sam Pitroda

patent, and has applied for a second one. Never to be put down, he developed a contraption to turn his scooter at will, into a light, portable wheat grinder for his wife. His motivation: his wife needed to grind just a few kilogrammes at a time, and it had to run without electricity. After a few critical modifications, Sheikh developed his scooter-based grinder. Its success inspired the makers of the super hit film 3 Idiots to feature an invention based on Sheikh's idea. Tarun Khanna, Jorge Paulo Lemann Professor, Harvard Business School,

and author of *Winning in Emerging Markets*, told India Now: "Innovation the world over is context-specific. India has its fair share of stalwart organisations, even though there is enormous distance to cover to address India's needs, and the needs of the developing world. These range from the Tata Nano to examples of entrepreneurship in civil society, like the renowned PRS." A unit

Wafer Thin Watch

Titan Edge

Think watch, think Swiss. It is difficult to imagine any innovation in any watch, anywhere, that isn't Swiss made. Imagine a wafer-thin, feather-light watch, that works just as well as it looks good. And it is one hundred per cent Indian. Designed indigenously by Tata's Titan Design Studio, it is safe to say that the Titan Edge is the slimmest watch the world has ever seen, and it is not a nano second out of synch!

For years, Concord of Switzerland ruled the watch world with its super thin 1.75mm quartz movement. Titan set out to challenge the market by designing Edge, a 1.15mm movement. It wasn't just the movement, the casing also had to be super thin and incredibly light, otherwise all that effort would have gone in vain. Pat came the specialised Titanium case for Edge, which is not just the slimmest in the world, but also the lightest.

The ultra thin watch needed matching glass, a .35 mm slice of Sapphire crystal, as thin as the human hair. With a movement as

thin as a wafer, an equally thin casing and glass to match, Titan Edge seemed good to go. Well, almost. It was the battery, however, that gave the designers sleepless nights. Initial Edge batteries lasted barely six months, but now boast of an easy two-year life. The watch uses a hi-tech silicon chip to conserve power and double the life of the battery, and a specially designed step motor. "We needed to develop a set of micro motors that would consume less power and yet drive the set. We could not have used the regular batteries. And smaller ones would also have a shorter life," says Bijou Kurien, COO, Watches Division, Titan Industries Limited.

"The Titan Edge is a significant achievement and matter of pride, not just for Titan, but for every Indian, as it reiterates our technological strengths and expertise as a nation. With its combination of rare precision and elegant styling, the Titan Edge will leave an indelible mark on history," adds Kurien, beaming.

of the Centre for Policy Research, PRS Legislative Research tracks the functioning of Parliament, to strengthen the legislative process by making it better informed, more transparent and participatory. It works with Members of Parliament across party lines to provide research support on legislative and policy issues.

Innovators are increasingly finding more faith in the Indian system. A product of IIT, Kanpur and Louisiana State University, Ramneek Bhasin is founder and CEO of US-based mobile technology firm Mobio. He also holds the patent for a voice-activated method

of accessing stored data through the mobile phone. According to him: "Innovation doesn't just happen. The recognition that a change is needed is the first step towards innovation."

Mapping Innovation

In an exercise to identify the innovators in India's villages, Forbes had asked Prof Gupta to compile his list of seven most powerful rural Indian entre-

preneurs. His list included three Mansukhbhais—Mansukhbhai Jagani, Mansukhbhai Patel and Mansukhbhai Prajapati.

Rajkot's Jagani's motorcycle-based tractor is both cost effective and fuel efficient. At just US\$ 318 (INR 14,400), it can plough an acre of land in 30 minutes using two litres of fuel, something only a marginal farmer will understand.

Gujarat's Patel is a farmer who made the cotton stripping machine that has drastically cut the cost of cotton farming.

Prajapati is a potter in Gujarat and he made a clay non-stick pan that costs just two dollars. He

has also made a clay refrigerator, Mitticool, that works on the principle of circulating and evaporating water, and does not use electricity.

Next on the list was Dadaji Ramaji Khobragade of Chandrapur near Nagpur, who developed the HMT rice, a highly successful rice variety which yielded 80 per cent more rice than the conventional variety. HMT is now grown on an estimated 100,000 acres in five states across India.

Then Prof Gupta speaks of Madanlal Kumawat, a grassroots innovator with no more than a fourth-grade education. He developed a fuel-efficient, multi-crop thresher that yields cleaner grains, which can be bagged directly, eliminating the cost of cleaning. The list included Ketan Patel of Troikka Pharmaceuticals who

INSPIRING SUCCESS STORIES

“ Innovation is propelled by need-local need, more than anything else. ”

— Prof Anil Gupta, IIM, Ahmedabad.

“Innovation doesn't just happen. The recognition that a change is needed is the first step towards innovation.”

— **Ramneek Bhasin**, Founder, Mobio, USA

made the world's first diclofenac injection for acute pain and inflammation, and Chintakindi Malleshham. He made the Laxmi Asu Machine that makes six saris worth of material in a day, and needs “no human effort beyond placing thread on the machine and removing the finished product.”

It is not just Forbes magazine. Even the Massachusetts Institute of Technol-

ogy (MIT) is taking note. MIT's Technology Review magazine has featured Rikin Gandhi, CEO of Delhi-based Digital Green, as one of the three of Indians in its annual list of young innovators. The list names top 35 innovators under the age of 35. You can read more about Rikin Gandhi on page 46, in the Rural Update section.

Other Indians on the list are Ranveer

Chandra and Indrani Medhi. Chandra demonstrated at the Microsoft campus in Redmond, Washington, the potential of using white spaces to extend the reach of Wi-Fi signals dramatically. At Microsoft Research India's Bengaluru laboratory, Medhi has done field research to design text-free interfaces to help illiterate people find jobs.

Indigenous Solutions

“Innovation is propelled by need—local need, more than anything else,” says Prof Gupta.

“True,” says Sam Pitroda. “We have to solve our own problems. The energy to innovate is not going to come from the West. In the Western world, the best brains are busy solving problems of the rich, who really don't have problems to solve. As a result, the problems of the poor do not get the right kind of brain power innovating for their needs. So, only we can focus on putting the best brains to work on the problems of the poor.”

IIM, Bengaluru's Prof Krishnan agrees: “We can't solve any of India's pressing problems – health, education to name just two – using the models of the developed world. Innovation is essential if we want to build the India of our dreams in a reasonable time span.”

In his concluding remarks, NIC chairman Sam Pitroda said, confidently: “Need will engender the creative application of resources, and innovation will foster. This is the decade of Indian innovation, and it will happen.”

There is every indication that it will. ■

INSPIRING SUCCESS STORIES

Taking Off

Dhruv, the shining Star

Making an aircraft from scratch brings together too many cutting edge technologies, and all of them have to be tried, tested, and tested again. Most aircraft, whether fixed-wing planes or helicopters, are made in the developed world, where either the technologies exist, or can be bought easily. Developing countries mostly buy the planes from the advanced countries, like the US, Russia and some European nations. India, however, has not only broken that tradition, it has even begun exporting to other nations. Enter the indigenously developed and sophisticated Dhruv, the Advanced Light Helicopter made by Hindustan Aeronautics Limited.

Deliveries of the Dhruv started in 2002, a full ten years after the prototype's first flight. The Indian Coast Guard became the first service to receive the helicopters. Now, all wings of the defence forces have their

own variants, and so do the paramilitary forces, Border Security Force and the Central Reserve Police Force (CRPF). One of only three helicopter aerobatic display teams in the world, Sarang, of the Indian Air Force, performs with four Dhruv helicopters.

It is a rugged multi-role new generation helicopter in the 5.5-tonne weight class. The cost-effective chopper has flown extensively in diverse terrains ranging from hot tropical deserts to the great Himalayan ranges. Dhruv has high military capabilities for heliborne assault, logistical support, casualty evacuation, reconnaissance and training. It is an armed gunship, a utility transport, an anti-submarine warfare/anti-surface vessel warfare helicopter and a platform for search and rescue and casualty evacuation.

Dhruv has been exported to Turkey, Peru, Myanmar, Israel, Bolivia, Nepal, Equador, Mauritius and the Maldives.

WHAT AN IDEA!

Ahmedabad's Kiran Bir Sethi's innovative ideas have changed the way children relate to school, learning and their environment. Bright, energetic and inspired, Kiran is a one-woman idea-factory, and is now set to change the world. **BY SHUBHA SINGH**



What happens when a student of design is fired by a mind that is teeming with ideas? An innovator is born. And what happens when that innovator has the large-heartedness to set her ideas free for the world to own and take forward? Meet Kiran Bir Sethi of Ahmedabad, designer, educationist, innovator and social entrepreneur.

On the phone from Ahmedabad, Kiran sounded charged and almost child-like in her exuberance. She is a strident young woman—confident, highly focussed and resourceful. She is an entrepreneur in the true sense of the word. Not only does she have innovative ideas for doing business and changing lives, but also the right kind of energy to turn them into successful, self-sustaining enterprise. Kiran affects you with her effusiveness and conviction, and most of all, her ideas are about social change and general good. She had just returned from an extended tour of Japan and Korea, without any sign of jetlag or exhaustion. Her enthusiasm is infectious.

When asked why her ideas work, she said clearly: “One, I think because I come from a design background, so embedded in the way I address a situation. I am able to demystify

what an idea can become, so I can make it accessible. Then, it is replicable, and because of these two, it should become sustainable.”

Unafraid of failure and ever willing to adapt and demystify complex ideas into simple, user-friendly ones, she has taken India and the world by storm. “I think where I might differ from others is in my openness to failure. I’m not afraid of failure.”

Kiran Bir Sethi has shown how to turn an idea into an enterprise. In fact, many ideas. It is no small achievement, that among the 20 Indian entrepreneurs that US president Barack Obama met during his recent visit to India, Kiran Bir Sethi was one of them.

At a seminar called TEDIndia, held in Mysore, Karnataka, late last year, Kiran Bir Sethi was invited to talk about her ideas for change, an honour few Indians have had. Having started in New York as a grouping of technology, entertainment and design professionals, TED is now a highly respected nonprofit organisation devoted to ideas worth spreading.



After graduating from the National Institute of Design, Ahmedabad, Kiran set up the Riverside School in her city, in 2001 with only 27 students in elementary grades. She had tried her hand as a newspaper reporter, acting and even singing with a local rock band. But her heart was in education and she gravitated to it. Although Riverside is a mainstream school, it is anything but a regular school. It is a place for learning without a drab, fear-inspiring appearance. The school has set a benchmark for excellence.

School Riverside now has more than 300 students and 55 teachers. Kiran has shown her method works and her students are making a mark in every field. They are not only learning to be good citizens, they are also good in academics. Her sunny countenance reflects in everything she does—whether in the design of the school building, its rooms and facilities, or the general atmosphere on the campus. At first glance, it hardly looks like an institution. But then, that's precisely what Kiran wanted it to be—a fun place to learn, not a school to fear. It is warm and welcoming.

When speaking about children and her approach to education Kiran says with confidence, “You know, for decades, we drill it into our children that they are too young, too small, too meek and they can't do this and they can't do that. And then we turn and ask why it is that they can't deliver, or be responsible citizens.” She says she believes when children are raised in nurturing environments, they in turn, create such environments for their children. This is a fortunate cycle and ultimately a culture of citizenship develops between children and adults.

Her belief is that ‘everyone can.’ “Then they will make this world a better place. And isn't that what it's all about?”

It is refreshing listening to her and she smiles, saying that often people are pulled into her projects because they are “infected with her enthusiasm which is contagious!” Undoubtedly,

School Riverside is viewed as a “laboratory to prototype design processes that enable exceptional teaching and transformative student participation,” in Kiran's vocabulary. The curriculum is customised and developed each year. This process is complete only when the student feedback is incorporated and the curriculum modified, if needed. All processes and outcomes are captured on paper, documented for future use and refined continuously.

Adding classes every year, the Riverside School now has classes from one to ten. Class eight onwards, the school offers the International General Certificate of Secondary Education (IGCSE)

curriculum. It is conducted by the internationally recognised Cambridge International Examinations. From classes one to seven, the school uses its own Riverside Well-Being Curriculum. Kiran says it is a “world-class, no compromise, primary and middle years programme.” The school's website says IGCSE is like any other Indian board, and is recognized internationally. It also says that students leaving Riverside can get admission to other schools and easily enter college.

In 2004, Riverside began selling its curriculum and teacher-training methods to other privately owned Indian schools, creating a model for financial sustainability. In 2005, Kiran also started collaborating with regional governments, donating the

curriculum models to public schools in many regions. Of late, she has been working with the Indian army to adapt the Riverside model to army schools across the country. She established the first “Beacon School” in Bhutan, and introduced a Riverside curriculum pilot for teaching English as early as grade one at two municipal schools in Ahmedabad.

Kiran says she believes that a child-friendly society breeds responsible, caring citizens. She has created systems of learning, campaigns, and initiatives that enable children to interact freely in their community. Her classroom curriculum hones individual potential.

“Sharing and spreading your idea makes it sustainable, and that's critical. If an idea is worthy, people should take it, and make it their own. The critical question isn't how it's done. It is rather why it's done.” —Kiran Bir Sethi

Together, classroom learning and engagement with the society, prepare her students to become active stakeholders in the society.

She tests ideas, studies the feedback she receives, reworks them, and lets them go free. Her thoughts are startling in their simplicity. “Sharing and spreading your idea to the whole world makes it sustainable, and that's critical. If an idea is worthy, people should take it, and make it their own. The critical question isn't how it's done. It is rather why it's done. In Taiwan, Mexico, and so many other places, local adaptation of my ideas will need local solutions. The beauty is that everybody has connected to my thinking. The concept that the human being is seeded with the concept of creation, and that it can create,” she says.

Early last year, Kiran launched her biggest initiative to date, a national campaign that encourages school-children across India to participate in a one-week project to change some aspect of life in their own communities. With only a few months' lead time, she bravely vowed to involve 20,000 schools and 100,000 students. More than 32,000 schools eventually participated in the campaign.

The radical, but hugely successful idea is called Design For Change and is

ter and they can make a difference. Kiran says she thinks a step ahead, and her idea is brilliantly different.

That is all very nice, said her critics and some parents of the students of her school. They appreciated the social consciousness in the students but worried about their grades.

Kiran showed them how empowered children made excellent students as well—they beat the city's ten top schools in Math, Science and English.

Now, Kiran has taken her idea to the rest of the world. Renamed the "Design for Change School Contest," the model has spread to 24 countries that are participating through a global website.

Some of these countries include Canada, Finland, Singapore, New Zealand, USA, Mexico, Thailand, and the United Kingdom.

"I introduced Design for change in India just last year. Today, it's in 24 countries. In a year, which is unheard of, right? Purely because I said—go, take it. it's yours, make it your own story," she says.

"Every time I get shaken in my own conviction, I just think of Mahatma Gandhi, I say: My God! For forty years he stayed with an idea, why am I giving up in six months," says Kiran about her inspiration for pressing on with her ideas and their execution.

Dismissing insecurity and the very thought of being possessive about her brilliant ideas, she says she firmly believes that an idea is sustainable only if it is usable and available. She says eagerly, "I love radical collaborations.

Kiran Bir Sethi

"The beauty of letting an idea go is that those who take it, are more respectful of the intent of the idea."

I love the fact that if I have a model, approach or idea, then it is seen, attempted or invested in by a set of radical minds. Therefore, it is important to let go. I put everything on websites, it's all available to download, there is no charge for it. Too many rules and regulations for an idea, make it

meaningless. That means you are making so many reasons for the idea not to go. And for me, I just want it to spread to as many people. The beauty of letting go is that those who take it and work with it, are more respectful of the intent of the idea. I'm really humbled by the way people say that they are using it, and loving the idea of making it their own."

Her latest project is called AProCh -- which stands for A Protagonist in every Child. It is a long-term campaign to see how children can engage with a large city — not only making the city safer for themselves, but also learning to be its active participants. A major road through Ahmedabad is closed once a month for a day of citywide child activities. So convinced are the people of Ahmedabad about AProCH, that the administration has decided to let children have a say in the design of two parks to be built in the city. For her work on the project, Kiran was named an Ashoka Fellow in 2008.

"The generator of the idea has to stay with it long enough for it to take root. And that's what I am constantly learning: that if it's in my interest that the idea stays, then I have to stick with it for as long as it takes to float it, nurture it, help it mature. Nurturing the idea is as important as the very idea itself, if you want your idea to go beyond the romance of inception," she adds.

When asked what is next, she says she does not know. But we know her mind is furiously working away! ■



spreading like laughter does, or enthusiasm. Design For Change encourages young people to think beyond money, and fundraising. They are asked to get directly involved in designing and leading change in their local community--hands on! The solutions they design must work, too. The driver is the belief that each individual change builds a momentum, gathering the requisite energy to enable significant positive change. Design for Change aims at becoming a community that will inspire and empower young people. It will send out a strong message to the youth, telling them that they mat-

SECTORAL UPDATE

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INSURANCE



DATA BRIEFING

7.6%

**SHARE
OF THE
INSURANCE
SECTOR
IN INDIA'S
GROSS
DOMESTIC
PRODUCT
(GDP)**

Insuring Success

The insurance sector is poised for major expansion, spelling good news for insurers and consumers together. **BY CHARU BAHRI**

The economy is growing, and companies are slowly making inroads into the huge untapped Indian market for insurance. Their mood is upbeat and for good reason—

the potential for growth is staggering. Last year, insurance penetration was 7.6 per cent of the gross domestic product (GDP). It may seem low, but it is a marked improvement over 3.3 per cent, seven years ago. There is still plenty of

scope for insurance take-up to grow.

The sector has made considerable progress in the past decade. Ten years ago, there were just four players in the life insurance segment, and twice as many offering non-life insurance. Today, life insurance alone has 23 companies, while 24 in the non-life insurance segment compete for a share of the pie, which is growing larger by the day. An industry report says that insurance in India will become a trillion-dollar business by 2030. Compiled by the Confederation of Indian Industry (CII) and Ernst & Young, the report entitled "Indian Insurance Sector: Stepping Into The Next Decade of Growth", says growth in the sector is inevitable as the economy grows. Some insurance schemes, notably in the life segment, receive long-term deposits, sometimes for as long as 30 years. These investments help fuel economic growth.

Life Insurance

According to the Life Insurance Council, India's US\$ 41 billion life insurance market is the fifth-largest in the world. The industry is also growing at a healthy 32 to 34 per cent, annually. The Insurance Regulatory and Development Authority (IRDA) puts the total premiums collected in 2009 at nearly US\$ 25 billion. This is an increase of more than 25 per cent over premiums collected in 2008. Shushmul Maheshwari, CEO, RNCOS, a research organisation, says life insurance dominates



According to the Life Insurance Council, India's US\$ 41 billion life insurance market is the fifth-largest in the world, and it's growing at a healthy 32 to 34 per cent, annually.

the industry with a three-fourths share of the premiums written last year. "The impressive growth in the sector in recent years can be attributed to the government's liberalisation policies which have enhanced product awareness, promoted consumer education and created more organised distribution channels which ultimately proved decisive for industry growth. In addition, strict regulatory control has sustained the faith of Indian consumers and helped the market grow," he adds.

According to Radhakishan Rawal, Associate Director Tax & Regulatory Services, PriceWaterhouseCoopers, "Rising affluence has led to a huge increase in demand for insurance. Among the most successful life insurance products are unit-linked insur-

ance plans (ULIP), which combine investment and life cover. These have proved a major source of revenue for insurers despite competition from mutual funds."

Earlier this year, the government raised the mandatory lock-in period for all ULIPs, from three years to five years. During the lock-in period, an individual has to stay invested in the policy he has purchased. Maheshwari says raising the lock-in period has practically made these policies long-term financial instruments with enhanced risk protection. Reducing commissions and expenses by distributing them evenly throughout the lock-in period, and the guaranteed annual returns of 4.5 per cent on pension and annuity plans, have also helped attract a huge number of hitherto uninsured consumers to the market. "India is seeing a growing demand for long-term saving and investment products – a gap that life insurance products bridge," he notes.

Research by Swiss Re, a leading global reinsurer, says that the penetration of life insurance (defined as a percentage of GDP) was 10 per cent in the UK last year. It was 7.2 per cent in France and 7.8 per cent in Japan. In India, however, it was 4.6 per cent. But as the number of bankable households swells and per capita income rises, this penetration will increase in the years to come.

PUBLIC-PRIVATE MARKET SHARE

Of the nearly US\$ 5.3 billion that the non-life insurance segment netted between April and October, 2010, nearly 60 per cent, or US\$ 2.7 billion, came from public sector companies. Private sector companies brought in the rest. Even though its share is lower than that of the public sector, the private sector has shown higher growth in premiums between 2009

and this year. Its premiums rose by nearly 26 per cent, compared with 21 per cent for the public sector. Last year, public sector firms underwrote premiums of US\$ 2.5 billion, as against US\$ 1.8 billion for the private sector.

Source: Insurance Regulatory and Development Authority (IRDA).

Maheshwari says he expects average household premiums to treble in the near term. Developments on the supply-side will also spur penetration in both urban and rural areas. As companies lower the share of single premium products to ensure regular collections, and change the product mix, the number of takers will rise.

Joint Ventures

In India, insurance was the exclusive domain of state-owned companies until less than a decade ago. Liberalisation ushered in a handful of private sector insurers. Of these, early movers such as life insurers ICICI Prudential, ICICI Lombard and Bajaj Allianz, have established themselves firmly. But their state-owned rivals still control more than half of all insurance done in India. The Life Insurance Corporation of India, for instance, held 65 per cent of the new business market last year. Most of the private firms in this sector are joint ventures (JVs) between Indian and overseas insurance companies. And that is showing results. "The arrival of JVs has broadened product choice and improved the standard of service within the market," says PriceWaterhouseCoopers' Rawal.

Raising the cap on the holdings of foreign partners from 26 to 49 per cent will allow existing foreign insurance companies more strategic influence on JVs. "This will also encourage firms that may have stayed away because of the current low threshold. They can now consider making a move into the Indian market. And, many private insurers would welcome new or additional foreign investment to help fund expansion, enhance product expertise and meet increasing regulatory capital demands," he adds.

Foreign firms looking to enter the insurance market in JVs have a critical choice to make – their local partner. In this context, Rawal cites the universal wisdom of choosing local business partners—making sure that both understand and agree with each other's

strategic priorities and return expectations. Considering that the existing leading insurance sector players are either state-owned or JVs already, firms must open up to the prospects of an alliance with partners from other sectors. BNP Paribas Assurance's JV partner, State Bank of India, is the country's largest bank, and Prudential's JV partner, ICICI, is India's largest private sector bank. However, Allianz's JV partner, Bajaj, is an automobile company. This reality suggests that newcomers will need committed investment partners who can dig in for the long haul in a business that could be beyond their core offerings. Incoming insurers would also need to provide the bulk of the insurance expertise, along with much of the administrative, marketing, risk management and other support.

Choosing the right partner is key to generating business and sustaining it, too. For instance, BNP Paribas has gained enormously through SBI's extensive country-wide distribution network. It's the same for Prudential and Allianz, who have benefitted from ICICI and Bajaj's networks, respectively. The existing networks of giants like LIC are enough reason for seeking a

beneficial partnership. LIC has 2,000 branches nationwide, while all its private sector competitors put together, had only one-fourth as many branches in March this year.

Distribution Methods

Insurers need a distribution network spanning semi-urban and rural areas. Those that cannot set up their own branches or have a networked partner, are adopting new delivery systems. As a result, the channels of reach are changing. For instance, private sector companies are favouring Bancassurance, the distribution of insurance products through a bank's network, and are willing to fork over hefty commissions for these services. Towers Watson India's Bancassurance benchmarking survey 2009-10, suggests that Bancassurance will play a crucial role in the overall development of the Indian insurance sector. It is expected to generate almost 40 per cent of the premium income of private insurers by 2012, nearly twice the income that Bancassurance currently generates. Companies such as Bajaj-Allianz, are looking at tie-ups with well-established NGOs with a presence in target areas.



Private firms are favouring Bancassurance, selling products through a bank's network, and are willing to pay hefty commissions.

“ Micro insurance is one of the fastest growing segments. A UNDP study says 90 per cent of the Indian population has no insurance cover. This is a huge untapped market. Firms that can overcome the challenges in the segment will score. The focus must be on countering the low level of awareness, introducing innovative yet simple products, and adopting novel distribution means.”

—Gopal V Kumar, CEO, Allons Insurance Research & Consultants.

As private companies roll out major expansion plans, the insurance sector will demand more manpower. Private life insurer Future Generali India, for instance, is all set to expand its existing network of 91 branches. It plans to open 100 new branches, creating employment opportunities for 21,000 people.

General Insurance

General insurance is growing at a healthy pace with state-run insurers posting slightly better results than their privately owned counterparts. Gross premiums collected last year stood at almost US\$ 8 billion, showing an increase of nearly 14 per cent over the previous year. This year's figures suggest that the growth is on an upswing.

General insurance is primarily driven by the expanding automobile and health insurance markets. In fact, the health insurance segment is expected to prompt the entry of new firms once the Insurance Laws (Amendment) Bill 2008 comes into force. The bill addresses IRDA's recommendation to lower capital requirements for stand-alone health insurance companies. As such, companies exclusively engaged in health insurance will be allowed to operate with a minimum paid-up capital of a little more than US\$ 11 mil-

lion. This amount is half of the current minimum paid up capital prescribed for life or general insurance businesses. The CII and E&Y say that health insurance premium revenues will multiply six times to US\$ 6.5 billion in 2015. Currently, the revenue is a little more than a billion dollars.

According to Gopal V Kumar, CEO, Allons Insurance Research & Consultants, "The health insurance market in India is growing at a compound annual growth rate of 30 per cent. Considering that only about two per cent of India's more than one billion population has health coverage, this segment offers a great investment opportunity. Increasing awareness about life and health insurance and demographic and socio-economic changes will boost the business."

India's huge population base in the light of its large untapped market and rapid economic development is also expected to help the micro insurance segment. As Kumar observes, "Micro insurance is one of the fastest growing insurance segments in India. A study conducted by the United Nations

Development Programme says that 90 per cent of the Indian population has no insurance cover. This is a huge untapped market. Firms that can overcome the challenges in the micro

insurance segment will score. The focus must be on countering the low level of awareness, introducing innovative yet simple products, and adopting novel distribution means."

Challenges remain – tax and regulation are key issues as is competition from entrenched players, and newcomers' need to innovate product offering and promotion. But the characteristics of the

Indian insurance market make it one of the most attractive growth markets in the world.

As FDI in insurance rises, it will help the industry expand. As more people living in semi-urban and rural areas buy insurance, their domestic savings are channelled into needy segments like infrastructure, helping economic growth.

The growth of the insurance sector is beyond doubt a boon for the Indian economy. ■

65%
Share of the
life insurance
market, held
last year, by
public sector
Life Insurance
Corporation

TEXTILES SECTOR

Wearing a Smile

The smiles on the faces of top textile honchos show the shape of things to come. BY CHARU BAHRI.



abad, Surat, Tirupur, and Ludhiana are facing competition from emerging centres like Ambala, Mundra, Madurai and Mangalore.

Over the next ten years, the industry will need investments of US\$ 68 billion across the supply chain, to turn opportunity into actual revenues, says management consulting firm Technopak. A significant portion of this investment will come from international funding institutions. According to Ministry sources, India will receive more than US\$ 5 billion of

The textile industry has done well in recent years and is set for major expansion on both the domestic and export fronts, thanks to the country's strong domestic market and favourable global developments.

Positive Standing

The Index of Industrial Production (IIP) data show that cotton textiles registered a growth of 5.5 per cent last year. Textiles made from wool, silk and man-made fibre grew by 8.2 per cent and textile products recorded a growth

of 8.5 per cent.

According to the Ministry of Textiles' Annual Report for 2009-10, the industry contributed about 14 per cent to industrial production, four per cent to the gross domestic product (GDP) and 17 per cent to the country's export earnings. The promising outlook for the Indian textile industry suggests that this contribution is set to rise.

The domestic market is strong, thanks to favourable demographics, rising income, rapid urbanisation, and organisation in business. Traditional textile hubs like Amritsar, Ahmed-

abad, Surat, Tirupur, and Ludhiana are facing competition from emerging centres like Ambala, Mundra, Madurai and Mangalore.

Rising Global Share

India produces 8 million tonnes of fibre, annually. Both the production and export of fibre have increased significantly in the last three years. Production is growing at a compound annual rate of four per cent while exports are growing five times faster. The outlook for the production and export of yarn is equally optimistic. The

country produces 5.3 million tonnes of yarn, and exports one-fifth of it. Fabric production currently totals nearly 55 billion square metres. Although India exports only five per cent of this output, exports are rapidly rising. Much of this rise is on account of growing exports of knitted fabric.

Textile exports are also rising because the global textile trade is steadily shifting eastward to cheaper Asian centres of production. The global textile and apparel trade is also recovering after the economic slump of 2008. Technopak valued the global trade at US\$ 510 billion last year. This is expected to double to a trillion dollars by 2020. The declining contribution of most developed countries is expected to create fresh export opportunities of up to US\$ 140 billion for developing countries over the next decade.

What makes the outlook for Indian textile especially bright is the fact that China, currently the largest exporter, is facing rising costs and growing domestic demand that may lead it to cede some export opportunity to its competitors. Ashish Dhir, Associate Vice President, Technopak Advisors says, “India has the potential to increase its export share in world trade to nearly 8 per cent.” On its part, the Synthetic and Rayon Textile Export Promotion Council has set a target to more than double the export of textiles.

Apparel Shines

Apparel offers the best financial returns of all the retail textile categories. The market is deepening and experienc-

“India has the potential to increase its share of exports in the global trade of textiles to nearly eight per cent.”

— Ashish Dhir, Associate Vice President, Technopak Advisors

ing the creation of definite segments beyond the conventional men’s, women’s and kid’s wear. This differentiation is helping retailers identify high growth areas to specialise for catering to distinct segments.

Dhir mentions some emerging segments to watch out for – “Women’s wear, because it was earlier ruled by unorganised players that are not seen as adequate to cater to the needs of the growing number of women in the corporate workforce. Casual wear markets are growing faster than the overall market, thanks to increasing patronisation by youth and greater acceptance of casual wear at workplaces. The rise of the nuclear family is giving kids’ wear a boost. The school segment represents a huge market considering that uniforms form close to four per cent of the kids’ wear market. This market will be driven by volumes as the margins are understandably lower. The rise of private sector education bodes well for this segment, which is mostly unorganised at present. Inner wear is another fast growing market. Retailers focussing on product differentiation and innovation and on introducing standard sizing will

score in this segment. The plus size clothing segment, which has less than one per cent of market share, has scope to grow to about 8 per cent. Active and exercise wear is also gaining acceptance as Indians get more health conscious and seek to live fuller lives by participating a lot more in outdoor activities. Closely related to active wear is the growing popularity of event-based merchandise retailing, such as the sales of T-shirts and jerseys of teams of the Indian Premier League. Youth fashion is another major opportunity, as college-going youngsters get more fashion conscious and seek labels catering exclusively to their needs.”

Certainly, some of these changes can be seen in the rise of plus size brands such as Revolution and Mustard, and the growing acceptance of sports brands like Reebok, Adidas, Nike and Puma.

Open Market

The entry of international retail companies like Zara, Wal-mart and Tesco is bound to spur competition in the industry and make the production process more efficient. It will inspire companies to adopt technologies that help improve supply chain management. Investments in information technology could be a way for suppliers to develop linkages across the supply chain, and thus open up huge opportunities for technology specialists.

Large-format retailers such as Marks & Spencer would also look to source their range from established local manufacturers. This will create ample opportunities for existing companies

Exports from Asia

Country	In 2000 (US\$)	CAGR 2000-09
Vietnam	1.8 billion	22 per cent
Cambodia	970 million	18 per cent
China	3.6 billion	16 per cent
Bangladesh	5 billion	10 per cent
India	5.9 billion	8 per cent
Pakistan	2.1 billion	8 per cent



SOURCE: INDIAN TEXTILE & APPAREL COMPENDIUM 2010, BY CONSULTING FIRM TECHNOPAK ADVISORS.

to align their systems and processes to international standards and expand their scope of services. Retailers are more likely to welcome partners that offer additional value added services such as design, logistics, warehousing etc. According to Dhir, “Activities like design should be perceived as a pre-requisite – a key success factor. Manufacturers will benefit from developing niche product competencies and offering customised solutions for respective retailers and brands based on their specific requirements. For example, an up-market brand might be looking at large product depth or variety, while a value retailer would be looking at basic products but with high fashion content.”

Rural Tidings

Rural India accounts for more than half of India’s apparel market. Rural consumption is also expected to offer a huge ‘low-priced fashion’ market for retailers to explore. Apparel brand Koutons already has more than 1400 stores, many of which are located in towns other than the top 35 cities. Companies are realising the benefits of moving early for better brand recall. SKNL is planning to launch a ‘mass brand’ for the smaller towns and cities of India.

“We see the rural sector as the most promising sector to be in,” says Ashesh Amin, director, Apparel and Retail, SKNL. The purchasing power of India’s increasingly young and aspiring rural population is consistently rising. Also, there is no recognisable national mass brand. So, SKNL is launching World Player – a new apparel brand aimed at the bottom segment, to be retailed through multi-brand outlets and possibly a handful of company stores in each of the country’s 600-plus districts. Our test launch in four states indicates that we will exceed our expectations. We’d targeted growing to a US\$ 7.5 million brand in one year. From the looks of it, we’ll grow to thrice that figure. Our low-priced denims, T-shirts, and shirts are flying off the shelves,” adds Amin.

Other manufacturers that are report-

Indian Textile Industry’s Projected Growth (US\$)		
INDIA’S TEXTILE TRADE		
Market	2009	2020
Domestic	47 bn	140 bn
Exports	23 bn	80 bn
Domestic apparel retail	33 bn	100 bn
Home textiles	3.5 bn	9 bn
Technical textiles	10.5 bn	31 bn



SOURCE: INDIAN TEXTILE & APPAREL COMPENDIUM 2010, BY TECHNOPAK ADVISORS.

edly looking to cater to the domestic value market are Arvind and Welspun Retail. In rural India, innovative low-cost designs and fabrics are much in demand.

Challenges and Initiatives

The Indian textile industry directly employs more than 35 million people, making it the second largest provider of employment after agriculture. In recent years, however, the parallel growth of sectors such as IT, pharmaceuticals, automobile, banking, and telecom have

left the textile industry hard-pressed for manpower. Textile majors need technical staff trained in engineering, design and merchandising, churned out by 103 textile institutes and 118 National Institutes of Fashion Technology. The shortage of trained talent necessitates a closer industry-academia collaboration to nurture and encourage bright talent. The industry also needs to help and fund research in priority areas such as the development of biodegradable and sustainable fibres and eco-friendly textile processes. Innovative marketing is also the need of the hour.

In this year’s budget, the government allocated substantial funds for the Ministry of Textiles’ Technology Upgradation Fund Schemes (TUFS). The ministry’s flagship schemes for the industry’s modernisation and technology upgradation, TUFS will ensure the sector operates cost-effectively and competitively. Investment under TUFS has been increasing steadily. Last year, 1896 applications were sanctioned at a project cost of more than US\$ 5 billion. The government is also focussing its attention on the Scheme for Integrated Textile Parks (SITP). The idea is to set up textiles parks boasting world-class infrastructure. Forty SITP projects have been sanctioned so far. The government has withdrawn customs duty on the import of readymade garments for retail sales.

From the looks of it, the government is leaving no stitch undone to ensure the fortunes of the textile industry pan out as favourably as expected. ■

Apparel offers the best financial returns of all the retail categories. The market is deepening, creating definite segments beyond the conventional men’s, women’s and kid’s wear.

REAL ESTATE

Building on Growth

Real estate companies are making the most of India's unquenchable demand for property and allied investment opportunities. **BY CHARU BAHRI.**

Realtors across India are upbeat about their business and growth prospects. They have good reason to cheer. In recent years, they've experienced the nation-wide rush for real estate and are rolling up their sleeves for the next phase of development, construction and expansion.

Rush for Housing

Urbanisation is encouraging millions of families to carve out a brighter future in the cities. This is giving rise to an unquenchable demand for housing. In 2006, the Ministry of Housing and Urban Poverty Alleviation constituted a Technical Group on the Estimation of Housing Shortage in India. In its report, the group laid out the scenario for the eleventh five year plan. It said that at the beginning of the plan, in 2007, there was a shortfall of a little less than 25 million houses in India. By the end of the plan in 2012, however, the shortfall would still exceed 26.5 million houses. A huge market and investment opportunity exists in this gap in the demand and supply of housing in the country.

As the urban economy grows and cities expand, they are attracting people from other cities and villages. As a result, there is a flurry of construction activity all around. The real estate market is maturing, consolidating and getting increasingly organised and segmented. The concept of tiered cities is now taking hold, where income levels, buying power, land values and economic development form the parametres of



stratification and categorisation. For instance, tier one cities in India are the economically progressive urban centres of Mumbai, Chennai, Kolkata, Delhi, Hyderabad and Bengaluru. Tier two features the second line of cities like Ahmedabad, Pune, Surat, Kanpur, Tiruchirapalli, Coimbatore, Lucknow and Nagpur. Even tier-III cities like Jaipur, Ghaziabad and Kochi are attractive investment opportunities for developers. Considering that India has 30 cities with a population of a million people each, the choice of locations is plentiful.

These cities have a lot going for them, especially as land prices and maintenance costs rise and yields fall in the tier 1 cities. So, though the investment risks are lower in the metros, some developers are consciously focussed

on markets outside major cities where land is cheaper and the margins are more promising. According to Rohtas Goel, CMD, Omaxe Ltd, "Cities such as Ludhiana, Allahabad, Pune, Indore, Chandigarh and Vishakapatnam are emerging as the new corridors of growth. They are advanced enough in the areas that matter and are still not saturated, real estate-wise. They have operating cost advantages, quality city governance, urban infrastructure and real estate development. The concept of large format integrated townships is a hit in such cities. We've entered Allahabad, Lucknow, Sonapat, Bahadurgarh, Baddi, Rudrapur, Mullanpur, Palwal and Patiala. Going ahead, we'll launch high-tech townships in Bulandshahr and Lucknow and residential projects in Chandigarh and Allahabad."

Government Engagement

Progressive government measures are helping fuel this sector's growth. Public sector banks have ambitious home loan targets. The largest among these, the State Bank of India, is chasing a monthly mortgage target of close to half-a-billion dollars. Home finance is now easily available. For instance, there are special schemes for loans of a little more than US\$ 21,000 for houses that cost US\$ 43,000 or less.

Tax breaks are also helping lower the effective cost of home loans, encouraging upwardly mobile younger people constituting India's burgeoning middle class, to buy property. Mortgage penetration as a percentage of GDP is at its highest ever.

The real estate sector now permits 100 per cent foreign direct investment (FDI) in townships, housing, built-up infrastructure, construction development projects, and the development of Special Economic Zones (SEZ) through the automatic route. It must, however, comply with regulatory guidelines. As a result, the volume of FDI in the real estate business last year alone, was more than one-third of all the cumulative foreign investment in the business in the last ten years.

Omaxe's Goel hails the government's Urban Land (Ceiling and Regulation) Act, 1976 and development-focussed schemes like the Indira Awaas Yojana and Rajiv Awaas Yojana. He also commends the government for allowing FDI in real estate, and making home loans available to buyers, saying "these

As the market matures, it is attracting more private equity commitments from foreign investors, which spells good news for the real estate sector in more ways than one.

measures are creating a win-win situation for investors and the economy."

Recognising that infrastructure development has the potential to accelerate real estate growth, the government has also allocated more money for urban development. It was a little more than US\$ 660 million last year. This year's allocation touches US\$ 1.17 billion—a 75 per cent jump over the last year. This prompts Goel to say, "The government has done well to promote the realty sector by focussing on the development of infrastructure in urban India, especially in enhancing available infrastructure in smaller cities where land is amply available. These micro-cities are the cities of the future."

Affordable Housing

Brotin Banerjee, MD and CEO, Tata Housing says he feels there is a compelling case for affordable housing: "India's urban population is expected to reach 575 million by 2030. Affordable housing is one of the biggest challenges associated with rapid urbanisation. Easily scalable public-private partnerships are the best bet to match the demand for such housing. Developers should receive incentives in the form of development charge waivers, reduction in stamp duty and registration costs, and infrastructure subsidies on developing townships. The profitability of affordable housing projects will be driven by numbers, as these have comparatively lower margins than high-end formats."

On its part, the government has increased the allocation for housing and urban poverty alleviation by 17 per cent in the current fiscal. It was a little more than US\$ 183 million last year. It

now stands at nearly US\$ 216 million. Projects of government-owned organisations, such as the Maharashtra Housing and Area Development Authority and the Delhi Development Authority have been runaway successes.

This overwhelming response has led many real estate firms to move into the affordable housing segment. Puravankara, for starters, has set up a wholly-owned subsidiary called Provident Housing & Infrastructure, to build 68,000 affordable homes in south India's largest cities—Bengaluru, Chennai, Hyderabad, Mysore, Kochi and Coimbatore. Omaxe is interested in the affordable space, too. Goel's view is that more private participation would help resolve the housing problems in the country. "Steps such as cross-subsidisation, fiscal and special incentives and land at concessional rates would encourage more private players. It would also help if the government provided requisite urban infrastructure such as water, electricity, mass connectivity, and adequate parking facilities and made a single window clearance system of rapid approvals," he adds.

Challenging Times

In spite of many takers for low-cost housing, both on the supply and demand side, sceptics caution that the rush to build affordable housing shouldn't turn out substandard buildings. They also see fewer developers launching new affordable schemes in key urban cities such as Mumbai and Delhi where land prices have shot through the roof. Nowadays, only companies who accumulated land inventory at prices much lower than the prevail-

FDI in real estate

April 2000 to April 2010—US\$ 8.4 billion
Fiscal year 2009-10—US\$ 2.8 billion



SOURCE: DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION, GOVERNMENT OF INDIA

ing levels, are reporting better than average net margins.

Cost pressures attributed to labour shortages and rising cement and steel prices are a major issue, too. Many real estate companies reported margin pressures in this year's second quarter. Unitech and DLF, for example, are leading realty players who saw their raw material costs double year-on-year in the September quarter. Conservative financial institutions and banks looking to reduce their exposure to real estate have also adopted a cautious approach on home loans. They're going slow on their vetting process and taking more time to scrutinise loan applications.

Despite the pressures, real estate companies are making the most of emerging opportunities. With a potpourri of asset classes to choose from, depending on their appetite and perceptions for the growth of each segment, they're not putting all their eggs in one basket. The real estate categories have sharpened and new ones have entered the picture – commercial complexes, hotels, hospitals, educational institutions, and service apartments are now almost as much in demand as residences. Not surprisingly then, Raheja, a well known residential property developer, is now constructing special economic zones (SEZs). The Brigade Group has associated with the Singapore-based hospitality brands Banyan Tree and Angsana for its health spa near Bengaluru.

New Opportunities

Diversifications into areas related to the core business of real estate, such as infrastructure, are being seen as the best hedge against any dips in the main business. Realty giant Unitech, for example, is bidding for road projects of the National Highways Authority of India. On the other hand, some real estate companies are also branching off into an area as diverse as power generation, where they expect better growth.

Another visible trend is of real estate companies moving abroad to cast their

nets wider. Overseas offices help market real estate products to non-resident Indians, who are major buyers of Indian properties, especially the premium segments. An overseas presence also comes in handy to raise funds and source raw materials. To capture new terrains, it makes sense to launch new projects in lucrative overseas markets. PRA Realty, for instance, has established a base in Chicago, USA, to tap venture funds. Sobha Developers expanded its operations to the UAE as far back as in 1991, where it has developed renowned projects in Dubai. Considering that every market is subject to some fluctuation, real estate companies are wise to embrace every opportunity that comes their way.

The Industry Matures

As the market matures, it is attracting more private equity commitments from foreign investors, which spells good news for the real estate sector in more ways than one. That they herald greater capital appreciation and are a source of much-needed funds is well known. In addition, FDI is seen as the primary driver for greater transparency in corporate governance and accountability in the real estate sector. Experts believe that more FDI is paving the way for the ready availability of comprehensive information on the real estate sector, such as the companies' land banks and their valuations.

The government has increased the allocation for housing and urban poverty alleviation by 17 per cent to nearly US\$ 216 million.

\$1.17 bn
Amount allocated by the government for urban development in 2010. This is a 75 per cent jump over last year's US\$ 660 million.

Also, several real estate companies have gone public in recent years. Oberoi Realty and Prestige Estates managed to raise more than US\$ 486 million through Initial Public Offerings (IPOs). Listing also makes information more easily available and spurs detailed reviews by equity analysts of the performance of these companies and the

real estate industry as a whole. This opening up and regularisation of the sector augurs well for investors. They are better able to read market signals. The India realty growth story is a compelling one, and likely to continue, albeit in a more stable manner as end-users take over the driver's seat from speculative investors.

Investor Speak

A recent report puts India at the top of the pack of real estate investment markets in Asia for 2010. Prepared by international audit firm PricewaterhouseCoopers and the Urban Land Institute, a global non-profit research institute, the report cites Mumbai and Delhi as good cities for real estate investment. It also categorises residential properties among the more promising asset classes. Hotels in Mumbai, Delhi and Bengaluru were also good investments, according to the report.

Experts say that the age-old rule – location, location, location – applies as much in the Indian real estate context as it does anywhere else. Within India, investors should identify high-growth states.

There are more than a billion Indians, their economy is stable and growing, and large numbers of them have disposable incomes. The ancient Indian wisdom of investing in gold and land is still strongly embedded in the Indian mind, and for the right reasons. No wonder, realtors are one in their view that the outlook for real estate in India is brighter than ever before. ■

POWER

Strong Currents

A vigorous expansion plan and an ambitious reforms process energise the power sector. **BY CHARU BAHRI.**

The Indian economy has a lot going for it. What will keep it going is a solid power sector.

India has the fifth largest power generation capacity in the world with an installed capacity of 152 GigaWatts (GW), according to a report by consulting firm Netscribes India Pvt. Ltd. The report says the government's policies and the power supply-demand gap are creating tremendous opportunities for private investment in the power sector.

The government has pledged to provide power for all by 2012. This means raising the per capita consumption of electricity to more than 1,000 kilowatt hours (kWh), the commonly known billing unit for supplied electricity. Last year, the figure was a little more than 700 kWh. A 60 watt light bulb consumes 0.06 kilowatt hours of electricity in an hour. If it remained on for a thousand hours, it would consume 60 kilowatt hours of electricity.

Planners estimate that India needs an additional generation capacity of more than 100,000 Megawatts (MW) of electricity, to meet the goal of power for all. In keeping with that thinking, the government launched the ten-year Accelerated Power Development & Reforms Programme (APDRP) in 2002. By 2007, the programme had added nearly 22,000 MW of installed capacity. For the next five years, the plan is to add more than 15,000 MW of capacity each year. By 2015, India will have an additional generation capacity of 78,000 MW of electricity. The now restructured APDRP has moved into the eleventh five-year plan with revised terms and conditions. It is focussing on demonstrable performance in reducing transmission losses in power distribution, and in bringing the



fruits of Information Technology to energy accounting.

To match and to facilitate India's ambitious economic expansion plans, the power sector must grow proportionately. This would mean an annual capacity addition of nearly 20,000 MW. A report compiled by international consulting firm McKinsey, says the demand for power in India will grow at an average rate of eight per cent for the next seven years. According to the report, titled *Powering India: Road to 2017*, India's power needs will rise to about 325 GigaWatts.

These ambitious targets translate into huge opportunities. The report forecasts the need for a five-to-ten-fold rise in power generation and investments worth a staggering US\$ 600 billion.

Power Generation

According to the Ministry of Power, almost 64 per cent of the total installed capacity of nearly 160 GW comes from thermal power plants. Hydro power accounts for 23 per cent and the balance is covered by renewable sources and nuclear energy.

The McKinsey study estimates that India needs to almost treble its existing capacity to 440 GW by 2017 to meet its growth targets. This would mean an annual capacity addition of 40 GW. By the end of the eleventh five year plan in 2012, the country will have an additional power generation capacity of 65 GW, representing 80 per cent of the planned capacity.

To encourage the participation of private entrepreneurs, the government has allowed mega power projects of more than 1 GW, a 10-year income tax holiday in the first 15 years of their operation. It has also waived capital goods import duties

for such projects. The government has also lifted restrictions on foreign direct investments for power generating companies and capital equipment manufacturing companies. As a result, the share of the private sector in power generation is expected to more than treble to 34 per cent through the next plan. Today, it stands at 10 per cent.

Generation Equipment

India's largest power generator, the public sector National Thermal Power Corporation (NTPC), proposes to scale up its capacity by 250 per cent, by 2017. In this year alone, NTPC will spend US\$ 6.3 billion to build an additional capacity of 4,500 MW. Recent changes in policy allow NTPC to procure power generating equipment from private sector power equipment manufacturers.

This move levels the playing field for private domestic and foreign manufacturers of key components such as boilers, turbines, heavy castings and forgings and special steel pipes. India's planned expansion makes it one of the most promising markets in the world for equipment and component suppliers.

Fuel Availability

Coal is the mainstay of India's power production since most of its power comes from coal-fired plants. Earlier, thermal power units were hard-pressed to manage coal supplies. In a move to regularise the supply chain, the Electricity Act 2003 allows thermal power producers to enter into binding long-term arrangements with domestic coal producers. It also liberalises the import of fuel and feedstock by domestic power producers seeking to secure supplies by purchasing, developing and operating coal mines or oil and gas fields, internationally. Significant imports of coal may create lucrative opportunities in its trade and in the

INVESTMENT IN THE POWER SECTOR

Cumulative FDI in the power sector from April 2000 to February 2010 was US\$ 4.53 billion.

Foreign direct investment from April 2009 to February 2010 was US\$ 1.34 billion.

SOURCE: DEPARTMENT OF INDUSTRIAL POLICY AND PROMOTION

Private equity investments in the power sector totalled US\$ 1.1 billion in 2009-10



SOURCE: VENTURE INTELLIGENCE, CHENNAI

construction of import and handling infrastructure, such as unloading jetties for coal carrying ships. The Indian Railways also stands to benefit through an expanded coal market leading to an enlarged transportation network. Private companies are also being allocated captive coal blocks for assured fuel supplies.

Power Transmission

The National Tariff Policy of 2006 encourages private investment in the transmission sector through competitive bidding. The Electricity Act, 2003 also identified transmission as a separate activity, and rightly so. There is a gap between what the plants produce and what is eventually supplied to the consumers. The transmission and supply network of pylons, cables, sub-stations and feeders is undergoing expansion. The Ministry of Power plans to establish an integrated National Power Grid that will be connected to a generation capacity of 200,000 MW. The grid will also double its capacity to deliver the generated power. This expansion calls for huge private and

public sector investments. Several leading domestic players such as Larsen and Toubro, Reliance Infrastructure and Kalpataru Transmission Systems, and foreign companies such as Areva T&D, have responded to the opportunities by ramping up their capacity to produce transmission equipment in India.

Lalit Jalan, CEO and whole time director, Reliance Infrastructure, says public-private partnerships are urgently needed in the transmission and distribution of power. He says there are two models of private sector participation in electricity distribution—the privatisation (licensee) model and the franchisee model. He says: "Privatisation is the more attractive option as it provides a long term solution. In the franchisee alternative investments are focussed on reducing losses. In the privatisation model, however, investments are based on business efficiency, covering requirements emerging from growth, customer service and technological upgradation." He also says that the franchisee model is the softer route, and has worked successfully in Uttar Pradesh, Bihar, Madhya Pradesh, Maharashtra and Uttarakhand.

Renewable Energy

Renewable energy sources include small hydro units, solar, wind, biomass, and urban and industrial waste water power plants. The government has ambitious plans of increasing the role of renewable sources in the country's energy mix. Not surprisingly, the plan outlay for the Ministry of New and Renewable Energy increased by more than 60 per cent this year. Last year, the outlay stood at a little less than US\$ 140 million. It is almost US\$ 225 million this year. The government has also launched a solar energy mission to generate substantial solar power by 2022.

Policy reforms are underway and funds are coming in. Planners are confident of meeting the target of adding almost 100,000 MW of capacity by the end of the next plan. ■

325 gw
INDIA'S TOTAL POWER REQUIREMENT BY 2017. TO GENERATE THIS MUCH POWER, THE COUNTRY WILL NEED TO INVEST NEARLY US\$ 600 BILLION.

Most bankers are cagey about lending to individuals. But, even the bravest of them pales at the idea of lending to an individual without regular income, collateral, or a bank account. However, since such a market does exist, an institution did evolve. And what a splendid institution it turned out to be!

Enter Self Help Groups (SHGs). In the mid-eighties, a little-known government organisation started organising village women into small groups. Twenty was the magical number—that is how many illiterate, rural women it took Rashtriya Mahila Kosh (RMK) to set up an SHG. Members came together because they faced common hurdles. It was thought impossible that these ladies, with no prior history of entrepreneurship, will form cohesive groups. But they did, with results!

RMK had laid down simple rules for them: participants had to be willing to meet for a set number of times each year. They had to show savings, however small, and record them in books and ledgers, and maintain them. If they could not write, they had to take the help of any literate person who could. This inculcated financial and book keeping discipline among women, who could neither read nor write, who had little or no money, no collateral, no bank account and no credit.

Working through an informal network of non-governmental organisations (NGOs), RMK taught women the value of savings, planning, investment, book keeping and repayment. It didn't matter how much, but each member had to save. Groups that completed a year of savings, book keeping and meetings, became eligible for loans for sustainable vocational activity. Finally, members had to make presentations before their groups, describing in detail how much money they needed, how they would use it and how and when they would return it. The amount hardly ever exceeded a few thousand: to buy



Numbers Count!

Banks that once avoided the poor for being high-risk borrowers, are now welcoming them. What's different? Strength in numbers. BY HEMANT KUMAR

a sewing machine, or a gas stove. The women knew how much they could take on. But it was not a "dole", it was a loan. And they understood it.

The RMK website says rather forcefully: "... The poor are bankable... Successful initiatives in micro finance demonstrate that there need not be a trade off between reaching the poor and profitability."

RMK realised that the only way to reach the needy, was the informal way. SHGs have come this far only with the government's readiness to work with informal NGOs and its willingness to set aside paper work and procedures.

From being powerless and unorganised individuals, the needy have transformed into an institution of substance, with an identity and accountability.

SHGs have reversed the logic why banks would not lend to the poor—default in recovery.

Their loan recovery rates, especially under well-monitored and regulated institutions, have been significantly higher than those achieved by commercial banks.

Now, bankers are rushing to lend to the poor and the needy. It has taken time, but it has happened. ■



LOGGED IN TO SUCCESS

After a dream IPO run, IIM Ahmedabad alumnus Deep Kalra's hugely successful travel site, makemytrip.com, is all set to become India's own 'Expedia'. **BY SHREYASI SINGH**

Every day, more than 12,000 air tickets are booked on makemytrip.com, India's largest online travel agent. Bagging the best business seats, however, is a trick the company has taught itself best. It made history recently, by being listed on NASDAQ, America's largest and the world's fourth largest screen-based equity securities trading market. Barely ten years old, MakeMyTrip is only the fourth Indian company since 1999 to be listed on NASDAQ. In August this year, it raised US\$70 million from selling five million shares at US\$ 14 each. Traded under MMYT, the company's stocks surged nearly 90 per cent upon being listed. Industry watchers said it was the best IPO in the US since Athena Health Inc went public in 1997.

However, MakeMyTrip has not yet been listed in India, in spite of its main focus

on the domestic traveller. The company has achieved a lot in a short span of time, even though it is yet to book profits. In fact, soon after going public, MakeMyTrip said it incurred a loss of US\$ 1.8 million for the quarter that ended in September 2010. Last year had ended in profit, even though small.

None of this fazes IIM Ahmedabad alumnus, Deep Kalra, who founded the company primarily as an air ticketing

Turning A Dream into Reality

Wise people always say you should do what you are most passionate about. But, often that amounts to taking the biggest risk of your life. Deep Kalra knows a thing or two about that. When he left his successful corporate career with GE Capital to start MakeMyTrip, he probably surprised himself as well.

Armed with impressive educational credentials after an economics degree from St. Stephen's College and an MBA from IIM, Ahmedabad, Kalra was destined for the high-flying corporate life. But, after stints at ABN



Amro Bank and GE Capital, he knew there was an entrepreneur inside him that was itching to go. Meeting internet pioneers like Sanjeev Bhikchandani, founder of naurki.com and Ajit Balakrishnan, founder of rediff.com, helped him focus his energies in building a web company to which he could marry his biggest passion—travel.

It's a coming together that made perfect sense, he says. "After studying various verticals that could be well-suited to the Indian online market, I found that the travel industry lent itself effortlessly to the Internet. It did so because it was a service industry with well-automated processes at the supplier-end and was

undergoing significant changes at the consumer level."

His faith in the venture has helped him weather many storms. MakeMyTrip launched in the US ten years ago. It experienced turbulence early on. Those were the days of the dot com crash. And, the future looked particularly bleak in the aftermath of the 9/11 disaster. "Raising capital for the company was the real challenge as the damage was massive and investors had cut back on all financing. We were in a tight situation and were left with two probable alternatives: either to buy back equity or to shut shop and go back to our respective jobs," remembers Kalra.

He bought back his equity in the business and along with two senior colleagues in the company, took huge pay cuts for more than 18 months to keep the company afloat. "We knew that the tough time would stay till we achieved break-even and shared this candidly with the entire team," he adds. Seventeen employees backed out, tendering their resignations. But, 25 others stayed. "Undeterred, we continued to focus on selling travel to NRIs rather than locals, while keeping a keen eye on the domestic market," explains Kalra, who is also a scuba enthusiast.

By 2002, the company had broken even. "We had won our first major battle." And, in 2004, Kalra began to attract investors again to launch services for India.

He managed US\$ 10 million in funding from the SB Asia Investment Fund in 2005. Another US\$ 13 million came from Helion Venture Partners, Sierra Ventures and SAIF Partners in 2006. In its third round in 2007, the company raised another US\$ 15 million.

Deep Kalra's gutsy flight of fancy looks like an easy cruise. He has just started using his well-deserved frequent flier miles.

platform for US-based expatriate Indians. Ten years ago, the online business in India was still in its infancy. "We tapped this potential at the right time and when we turned profitable in 2002, we knew that this sector held a lot of promise for us," says Kalra, Chairman & CEO.

The Indian business was launched in 2005. "There were signs of growth. Indian Railways' online booking system had taken off, demonstrating both that Indians were comfortable booking online and that they were ready to pay a premium for booking at their convenience," recalls Kalra.

"We catered to customers across categories and offered winning propositions like Best Deal and Lowest Airfare Guarantee," adds Kalra, who quit a successful corporate career to turn entrepreneur.

Headquartered in Gurgaon, MakeMyTrip heralded a revolution in the way travel was bought in India. Today, millions of customers visit the website to book air tickets, customised holiday packages, hotel reservations and railway and bus tickets. It gives access to all major domestic full-service and low-cost airlines in India, all major airlines operating to and from India, more than 4,000 hotels within the country, and a wide selection of hotels outside India.

Of course, educating the customer and developing the ecosystem were key challenges when Kalra entered the Indian market. "Overcoming issues of Internet penetration was a major cause of concern. Even within the small tech savvy population, not many were comfortable with the idea of booking their travel and holiday online."

But, his team's ability to change mindsets and its turbo-powered journey over these five years explains Kalra's calm confidence about the good times ahead. Internet businesses achieve tipping point at a sales volume of half-a-billion to a billion dollars, explains Kalra. At a sales turnover of roughly INR 2,200 crore (approximately US\$ 480 million) in 2009-10, and almost half the market share, MakeMyTrip is rapidly breaching the point where revenues will turn into profits.

Volumes will power this flight, says Kalra. Despite growing competition in the sector and concerns over Internet bandwidth, there are few worries about the website's ability to bring both repeat customers and new ones. "We are well positioned to capitalise on the long term opportunity that comes with the expanding Indian economy and its growing middle class. When broadband Internet becomes more readily and widely available nation wide, it will only popularise e-commerce."

According to Omniture Web Analytics, makemy-

trip.com attracts nearly four million unique visitors each month. Internet information company Alexa says makemytrip.com is rated 89 among India's top 100 websites. A range of innovative, clever marketing ideas have shaped the brand's easy recall. Its viral marketing campaign, considered a case study now, spoofed moments from the Ramayana and the Bollywood blockbuster Sholay, to take its lowest fare guarantee to consumers. Their easy-on-the-tongue tagline, "Just Wish, Click and Go" has also been a winner.

The real kick, however, came from a virtual marketing coup the company pulled off earlier this year. It got director-producer Karan Johar to promote the website's holiday packages to the US in his new and highly publicised film My Name is Khan, starring the mighty Shah Rukh Khan. But what's even more awe-inspiring is, that makemytrip.com had to pay nothing for the publicity.

In this year's second quarter, the company's gross combined bookings for air tickets, hotels and packages more than trebled to US\$156 million from just a little more than US\$51 million last year. The travel and tourism industry itself is growing. A slew of low cost airlines have emerged, the Internet is rapidly proliferating, including on the potentially profitable mobile platform, and e-commerce is taking roots, economy-wide. According to industry estimates, nearly a quarter of all the business conducted in the Indian travel market, comes from its online segment.

MakeMyTrip is looking at acquisitions to accelerate its growth. "We want to spend the proceeds from the IPO, on acquisitions. We are in talks with some shortlisted firms and will probably announce an acquisition by March, next year. We are looking to acquire a travel technology company or a regional player," a company spokesperson told India Now.

4
million:
Unique Visitors to makemytrip.com every month

“We want to continue growing in the lucrative band of holidays and hotel bookings. As more people book their travel online, this will not be a difficult target to achieve” —Deep Kalra, Founder, MakeMyTrip

Online businesses in India have to contend with challenges like low Internet penetration in smaller towns and cities of India, and that its small and medium hotel segment is really unorganised and fragmented. "Our constant effort is towards unifying and organising the segment," claims Kalra.

The company has also constantly innovated by introducing a range of products like holiday packages, combination products and retail outlets. It has also partnered with travel agents to consolidate its leadership position. This year, it introduced charter flight holiday packages to outlying destinations like Leh, the Maldives and the Andaman and Nicobar Islands. Even now, air travel accounts for nearly 70 per cent of MakeMyTrip's transactions. "Our effort is to continue growing in the equally lucrative band of holidays and hotel bookings. As more people book their holidays and travels online, this will not be a difficult target to achieve," adds Kalra.

MakeMyTrip isn't anxious about the competition in the industry. Apart from international players entering the country, a lot of domestic companies are also growing well. "We believe in more the merrier," says

Kalra. "It leads to healthy competition and ensures that each player only strives to get better."

He says he believes his employees help differentiate MakeMyTrip from the competition. Recently, MakeMyTrip was ranked second in a list of India's Best Companies to Work For – 2010. The list was compiled by the India chapter of The Great Place to Work Institute, Inc., a US-based research and management consultancy, with offices throughout the world.

"Empowering the team, developing the work culture and building a great place to work are indispensable factors in our success," says Kalra. He often says entrepreneurs must work as employees before they start their own firms to understand the value an employee can bring. "Our rise is the result of superior vision and the spirit of each one of our employees."

The company has also won a host of other awards like last year's CNBC Travel Award and the Galileo-Express Travel World's Best OTA Award. It was also named last year as a super brand by Consumer Superbrands India.

India is still opening up to the tremendous possibilities of e-commerce and MakeMyTrip is positioned perfectly to capitalise on it. It aims to take us, and travelling, to unexplored heights. And that is a happy outcome. ■



CLOUD SURFING

Firms welcome tech graduate's popular low-cost PCs that do all their computing online. **BY VIKRAM SINGH**

What would you do if you needed to go online for just a little while, once or twice daily at the most? Would you buy a PC for US\$300 or more, or look for a cheaper and equally effective alternative? But is there a cheaper alternative? Yes, there is. Ask Mumbai's Rajesh Jain.

He graduated from IIT Mumbai and went on to gain his masters degree at the University of Columbia, USA. An astute businessman and

master technologist, Jain saw opportunity in a definite gap in India's computer market. A lot of people needed to use the internet daily. Yet, they were not interested in any other application a computer carried. For them, there was no point investing in a dud laptop that would sit idly for the most part of the day. For them, the only solution was visiting the cramped, noisy and glitch-ridden network of internet cafes. "Such people needed to own a device that would quickly and cheaply get them online without having to buy and upgrade expensive software. For them, cloud computing was the grand panacea of all computing and net surfing ills," adds Jain.

So, Jain, 41, founded Novatium, a Chennai-based company that makes NetPC. The machine is based on cheap cell-phone chips and without the hard-disk drive, extensive memory and pre packaged software that add hundreds of dollars to the cost of regular PCs. Instead, NetPCs are little more than a keyboard, a screen and a couple of USB ports--and use a central network server to run software applications and store data. Novatium sells the NetPC for only \$155. Unlike most thin clients (another name for such devices), NetPCs work on cloud computing, without requiring major modifications, whether servers use proprietary software from Microsoft or Sun, or free software from an open-source company like Linux.

"Nearly 25 to 30 million Indians, and counting, go to internet cafés every day. We plan to target this group aggressively," Rajesh Jain told India Now. "We also want to attract the very large number of small and medium enterprises that need computers to function but whose needs keep fluctuating within short periods of time. For them, investing in such high depreciation hardware as computers is always a lose-lose proposition. With our affordable solution, such organisa-



"We're leveraging the simplicity of computing. NetPC is truly plug and play,"

—Alok Singh, CEO and MD, Novatium

"Nearly 30 million Indians go to internet cafés daily. We plan to target this group aggressively"

—Rajesh Jain, founder, Novatium



tions can save a lot, gain a lot."

Cloud computing essentially means computing over the internet. Computers have a basic processor and connection to the internet. Once online using a broadband or wireless connection, the user connects to a remote server. All the software needed to go online, to write or save files, sits on the server. The user executes the software online, generates files and even saves them on remote hard disks online. This does away with the need for a lot of expensive hardware and software that computers must have today.

Novatium has tied up with India's leading telecommunication companies and internet service providers for the sale of its NetPC. Its partners include BSNL, MTNL and Bharti Airtel, India's top three internet service providers with the bulk of the market within their grasp. Each of these companies offers

its own package of services with the NetPC. Cellular giant Ericsson India also recently acquired a minority stake in Novatium to speed up the broadband enabled user services in emerging economies. Novatium will now have funding and competence to further develop the offering and grow outside India in markets with similar needs.

According to Alok Singh, MD and CEO, Novatium "All you ever need to go online are the NetPC and a broadband internet connection, whether wired or wireless." About the market,

Alok told India Now, "our research has shown that there are nearly 60 million Indians who use the internet every day, but only about seven million of them own computers. So, clearly here, the gap is our market to tap, and it's a huge one." Alok said NetPCs are powered

by an Intel Atom dual-core 1.6 GHz processor (CPU) and have 1Gb of onboard RAM. The basic model does not have a hard disk. The computers are loaded with their proprietary cloud operating software that takes the user online. From that point onwards, elementary cloud computing takes over.

The cloud computing market in India will hot up in the next five years. Market intelligence firm IDC estimates the market to be nearly US\$67 million. In a recent report, IDC said the market will grow at a CAGR of 40 per cent over the next five years. International companies are also taking note of India's unique position in this space. Speaking at the Sixth India Innovation Summit organised by the Confederation of Indian Industry (CII), recently, Ravi Venkatesan, Chairman, Microsoft India, said India will lead the world in adopting cloud computing, with small businesses and the government leap-frogging directly to the cloud.

"We are leveraging the simplicity of computing. Our NetPC is truly a plug and play machine," adds a confident Alok Singh. ■

ARTS & CULTURE



◀ Visitors admire exhibits at the museum. (Below) M.F. Hussain's oil on canvas—*Ganga*

Art with Heart

Kiran Nadar builds a thoughtful bridge between high-value art and people who value it. **BY RUCHIRA MITTAL**



Shiv Nadar knows the fine art of business—starting out in a garage, he has built a multi-billion dollar IT company, HCL Technologies Limited.

His wife, Kiran, collects fine art. Not for herself, but for all art lovers. What began as a simple acquisition of need to decorate her mansion, has turned into a full-time passion for collecting, showcasing and promoting art. Early this year, she opened the sprawling and well-appointed Kiran Nadar Museum of Art (KNMA) in Noida, near capital city Delhi, with an exhibition rightly called *Open Doors*.

“Art should be made available for the common man to enjoy. It is not to be kept locked away in lofty mansions. It is a reflection of the minds of the people and it must be seen, for it to be truly valued and understood,” says Kiran.

Aided by a generous grant from the philanthropic Shiv Nadar Foun-

dation, Kiran has since transformed into an art benefactor with public interest at heart. Her 13,000 square foot museum is home to more than 300 works of art with a total value of more than US\$55 million.

Kiran does not limit herself, but is partial to modern artists such as M.F. Hussain, Manjeet Bawa and S.H. Raza. She also enjoys the works of Shibu Natesan, Subodh Gupta, Surendran Nair and Jagannath Panda. The museum's star attraction is Raja Ravi Verma's beautiful painting of *Shakuntala* lost in thoughts of her lover, while an enraptured deer gazes at her magical beauty.

▶ Kiran Nadar

Named 'Hero of Philanthropy' by Forbes Asia this year, Delhi-based Kiran is an international competitive

bridge player, philanthropist and avid art collector. An English (honours) graduate of Miranda House, Delhi, she is a brand builder who

helped IT major NIIT's founder Rajendra Pawar promote his brand. She represents India's bridge team globally, and has played against Microsoft

founder Bill Gates and Hollywood actor Omar Sharif. Kiran is married to billionaire and founder of HCL Technologies, Shiv Nadar.



Kiran is a passionate but astute collector. "She has visited my place numerous times over the sale of a series of rare Chughtais," says collector of art, V.S. Chordia. Renowned for his unique style, painter-intellectual Abdur Rahman Chughtai left for Pakistan after the partition, in 1947. Collectors understand the value of his priceless paintings and drawings, now almost a century old. "Kiran adores art, but bargains relentlessly. She has a deep understanding of the contemporary art market. She knows paper, canvas, period, artist and works of art rather well, and can stratify price and value. She will never let you know she has her heart set upon a particular piece," adds Chordia.

But when her heart is set upon a piece, she will own it, whatever the price. At an auction at Christie's in London, earlier this year, she paid the highest price anyone has ever paid for a modern Indian painting—US\$3.5 million. The canvas: Padma Bhushan S.H. Raza's seminal work *Saurashtra*. The octogenarian has been living in France for more than half a century. His much sought after and vibrant oils and acrylics draw upon Indian cosmology and philosophy.

Blogger Marina Marangos of Cyprus, who lives in Delhi with her diplomat husband, wrote about the museum recently: "The interior is spacious and layout professional, but friendly, the artwork is impressive for its diversity in form and shape, and the collection is prob-



The Kiran Nadar Museum of Art has become a sort of rendezvous for art critics, budding artists, enthusiasts and art lovers. A group of visitors gets a guided tour of the museum (above left). New York-based Pakistani painter Shahzia Sikander's 1973 work *Veil 'n Trail* is a giant 8 foot by 16 foot canvas (above).

London-based artist Raqib Shaw's 2006 work *Cheap Rice* is quite a draw (right).



ably one of the finest of Indian contemporary art. Some prominent pieces include Anjolie Ela Menon's 'Woman on a Threshold', Rashid Rana's stunning carpet with miniatures of dark and sinister scenes, and the collective appeal of Harsha's Sewing machines. Then there is the floating fanciful world of Manjit Bawa, depicting so much that is loved and revered in India."

Had it not been for Kiran Nadar, most or all of the art at KNMA, would have been acquired by private collectors and hung on heavily guarded walls or put away in reinforced steel vaults. Now, anyone can admire works like *Saurashtra* that only a chosen few can buy. ■

TOURISM UPDATE

RAJASTHAN



PHOTO BY PHOTOS.COM

▶ **King Of The Desert:** In the deserts of Rajasthan, brightly decorated camels are a common sight. People dress them up in jewellery and gold finery.

▶ **Mehrangarh Fort:** Grand and solid, this fort in Jodhpur is steeped in Rajasthan's history

▶ **Trendy Turbans:** Bright and beautiful, turbans are as much a part of Rajasthan as its sands and dunes

Romancing Rajasthan

This winter, experience the splendour of some of Rajasthan's most exquisite locations. **BY RUCHIRA MITTAL**



Wherever you go in Rajasthan, you can't remain untouched by its vivaciousness. Drive out of Delhi, you will notice that the vegetation slowly succumbs to the harsh beauty of the desert. The deeper you drive into the desert, the softer the language will become.

Rajasthan is easy to spot, women and men dressed in the brightest of colours, in defiance of the desert's arid brown. A sense of the ancient exists everywhere, from the heady aroma of its delectable cuisine to the dancing colours of its native costumes. The experience changes most, forever. Rajasthan is too vast to cover in a jiffy. Therefore, we have picked out four of the most exquisite locations for you to experience, this winter.

Udaipur: Let's start about 660 kilometres west of New Delhi, in the erstwhile nub of the celebrated kingdom of Mewar and one of Rajasthan's most spectacular cities, Udaipur. Nestled in a fertile valley, it is a city of palaces, essentially built around the three lakes of Pichola, Fateh Sagar and Umaid Sagar. In the heart of the city, as the setting sun burns a fiery orange and the undulating Aravali range turns purple in the background, reflect upon the stunning architecture of the palaces girdling the golden waters of

the lake. Sit right there, and contemplate life's wonder, in the mysterious light from the alcoves of the Lake Palace hotel and the ethereal glow of the crystal clear, starlit night. Tear away from the sprawling palacial acres, and weave through the inner city's magical bylanes, jostling in its noisy little markets. Full of handicrafts and irresistible buys, the Bara Bazaar near the Jagdish Temple and Babu Bazaar near Suraj Pol are memorable experiences.

Chittor: Once one of Rajputana's most magnificent citadels, the fort is situated 150 kilometres from Udaipur. Nearly 700 years ago, it housed the fabled and beautiful Rani Padmini of the Sisaudia clan. Drawn by her irresistible beauty, Delhi's Turko-Afghan ruler Alauddin Khilji attacked the fiercely protected fort, early in the 14th century. She preferred to die fighting, rather than give herself up. More than two centuries later, historian Malik Mohammad Jayasi immortalised her story of honour and sacrifice in his epic Padmavat. The legend leaps out at you from the walls and ramparts of the fort.

Jaisalmer: Have you stood in the middle of the desert and watched the sun go down? And have you then watched the evening wrap a loving arm around the shoulders of sun-baked day? You should, in Jaisalmer, this winter. Wait a little longer and feel the night unfurl above you like a star-studded sheet of calm. Drive 575 km west of Udaipur, into the golden city at the edge of the desert, where the sun comes down and kisses the specks of sands and startled sprigs of grass before it's gone for the night. The Sonar Quila, or the golden fortress, rises like a colossus from the sands. Jaisalmer is a city of havelis (artistically designed private mansions). In Jaisalmer, you have no idea where the desert ends and where life takes over. Jaisalmer affects you.

Jaipur: The capital of Rajasthan, Jaipur was founded in 1727 by the Kachhwaha Rajput king Jai Singh II. Jaipur is a five-hour drive from Delhi on most days, but you must take the route into town that cuts through the hills lined by the imposing ramparts of the sprawling Amber fort. History is etched in white and red sandstone in its architecture. A sound and light show at the fort is a popular



FIVE KEY HIGHLIGHTS

1. THE ART OF TIE-AND-DYE



A popular part of Rajasthan's heritage. Pick a piece to light up your closet or wardrobe.

2. RANI PADMINI OF CHITTOR



Poet Malik Muhammad Jayasi immortalised the story of the breathtakingly beautiful Padmini in his epic Padmavat.

3. LAKE PALACE



In the middle of lake Pichola, the sprawling and exquisite palace-turned-hotel covers 1.5 hectares.

4. KUMBHALGARH FORT



64 km from Udaipur, Kumbhalgarh is the second-most important citadel in Rajasthan.

5. DHOL

An important percussion instrument, the dhol is a double-sided barrel played during weddings and festivals. It's surface is often painted brightly.



Thar Desert: Shadows fall on the sands of Jaisalmer, as tourists try its desert safari

attraction. In 1853, the ruler of Jaipur, Sawai Ram Singh, had all the city's buildings painted pink to welcome the visiting Prince of Wales. Large parts of the city, including all its official buildings, are still painted in that colour, hence the name Pink City. It rightly boasts of the best in cultural heritage and markets.

The wide straight avenues, roads, streets, lanes and uniform rows of shops on either side of the main markets are arranged in nine rectangular city sectors. The walled city especially reflects its profound architectural planning. Tourists can enjoy shopping for gems, garments, blue pottery and much more. If you are adventurous, you will go looking for the best savouries and sweets in the walled city. Glistening mountains of sinfully sweet mava vanish as eager buyers throng the shops in the narrow bylanes of the market. For the not so daring, the LMB restaurant is the place to sample Rajasthan's cuisine.

In the main city, visit Amprapali at Paanch Batti for gorgeous handcrafted silver jewellery. Don't forget to bargain, you could just be pleasantly surprised. Indulge some more when you step out of the store and try the famous lassi just across the road. Yes, you can ask for it with or without the generous sheet of cream, cut and carved into soild biscuit-sized slices and placed right on top of the blended and sweetened yoghurt. Jaipur's metropolitan side caters to all tastes! If you are feeling giddy at the thought of how much there is to see and do, indulge in an evening at Chowkhi Dhani on the Ajmer-Tonk Road. Be treated like royalty, dine in Rajasthani splendour and let the colours and vibrancy of Rajasthan fill up your senses. ■

RURAL UPDATE

Green Innovators: Two young engineers are changing the face of farming, thanks to their unique thinking. BY HEMANT KUMAR



After his masters in aeronautical engineering from the highly sought after Massachusetts Institute of Technology (MIT) in the US, Rikin Gandhi wanted to become an astronaut. With an MIT degree, he could have done just about anything. But after a visit to India, he became grounded in more ways than one. Now, he uses his vision and education to help improve the lives of farmers across India.

Last year, he set up Digital Green, a project where farmers exchange knowledge through videos. Using cheap and easily available digital cameras, Rikin teaches farmers to shoot their own videos of crop, farming and related techniques. Then he teaches them to transfer the videos into a computer and edit them, too. Finally, he screens the films on television sets, to farm-

ers within and beyond their own villages. As a result, farmers who do not have the Internet, can still reap a rich harvest of knowledge.

Digital Green's website www.digitalgreen.org proudly proclaims that nearly 29,000 farmers have so far joined this learning exercise. They have together produced more than 780 videos, screened thousands of times. Gandhi's method is engaging, and it helps the farmers network beyond their communities and geographical boundaries.

In the Anand district of Gujarat, Sojitra is a little-known village. At least it was, until a local farmer's son had a brilliant idea. Young Santosh Ostwal is an electrical engineer and he has made Nano Ganesh, a simple but extremely useful tool for operating farm devices from faraway. It is a mobile-based remote control system that can switch water pump sets on and off. Strapping



Rikin Gandhi and Santosh Ostwal

Aeronautical engineer Gandhi founded Digital Green, while electrical engineer Ostwal made the Nano Ganesh.

a modem to the irrigation pump set, and connecting it remotely to a mobile phone number, Ostwal's Nano Ganesh turns a mobile phone into a remote switch for operating the pump set. All the farmer has to do is dial a number and punch in codes for starting or stopping the motor. It might not seem like much, but in the villages, irrigation pumps sets are often far away from fields and homes. Trudging to them to once switch them on, and then to turn them off, is a gruelling exercise that only those will understand who suffer it every day.

Gandhi and Ostwal come from different backgrounds. One went to Ivy League universities in the United States, while the other studied in India.

They may not know each other, but they are connected in the strongest of ways. Both are innovators, and both have made a huge difference. ■

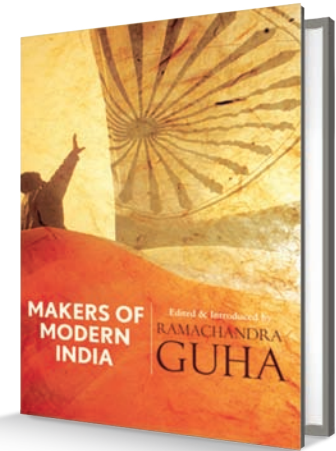
“I chose people who were both thinkers and doers”



Author: Ramachandra Guha

Pure Thought, Solid Action

A one-of-a-kind anthology, featuring the giants of modern Indian thought, and their ideas and perspectives. **BY MAHESH RAVI**



POSSIBLY one of India’s best known living historians, Ramachandra Guha has carved himself a unique position in the pantheon of chroniclers. He dwells on the more “modern” parts of the timeline, giving readers both perspective and an up-close look at Indian history. Three years ago, his book *India After Gandhi: The History Of The World’s Largest Democracy* had won high acclaim for its fresh insights into modern India.

In his most recent work, Guha captures the ideas and passions that drove the “makers of modern India”. History, they say, is etched in what men and women write and what they say. Therefore, Guha pored over speeches, letters, petitions and essays of leaders of modern India, and drew an elaborate matrix of the complex library of thought, of that time. He has selected a diverse group of people, from Mahatma Gandhi, Jawaharlal Nehru, Rabindranath Tagore and BR Ambedkar, to many important, but lesser

known, thinkers and leaders. Guha also talks at length about the women who shaped modern India. Take Kamaladevi Chattopadhyay and Tarabai Shinde, for instance. Chattopadhyay founded many progressive institutions, like the National School of Drama, the Sangeet Natak Akademi (Music and Drama Academy) and the India International Centre, while Shinde was possibly one of India’s first votaries of gender equality.

One is struck simply by the depth and expanse of the philosophy of the writers that the historian has featured. They demonstrate foresight and liberal thinking easily considered radical for that time. For instance, in the initial years after independence, India chose a mixed model of economic development, where the Centre played a dominant role. However, C Rajagopalachari, the nation’s first Indian Governor General, wrote in the 1950s: “...There should be encouragement to industries producing consumer goods, which give con-

ABOUT THE AUTHOR

Based in Bengaluru, historian-columnist Ramchandra Guha has written many books and taught at Yale, Stanford and the Indian Institute of Science.

tent and meaning to the phrase “standard of living” and which can be produced in small and medium-scale industries. Private enterprise should be fostered by every means available...industrial enterprise would then spread at various levels in the countryside.”

The Governor General further writes (circa 1959), “The role of the government should be that of a catalyst in stimulating economic development while individual initiative and enterprise are given the fullest play. The government can do a great deal by way of providing a network of highways and village roads, in improving waterways and developing small harbours, improving communication and transit facilities, which would all serve to boost the economy.”

Rajagopalachari’s words reflect the thinking across the political spectrum at that time, and its reservations with a state-dominated model of the economy. Actually, leaders were advocating a structure where the government took care of the infrastructure, and

left the skilled and resourceful private sector to develop, and deliver to the consumers.

Guha also draws the reader's attention to India's own internationalist leanings in the first half of the twentieth century. Today, the world has become infinitely closer, allowing people to understand the planet's rich ethnic, social, cultural and ideological diversity. India's first Nobel laureate, Rabindranath Tagore, felt a deep humanism and believed in universal values for mankind, values that are still reverberating, as India strives for global harmony. His superior wisdom reflects a clear understanding of humanity's interconnectedness, compelling the world to pause, and think: "Today, at this critical moment of the world's history, cannot India rise?...and offer the great ideal to the world that will work towards harmony and co-operation between the different peoples of the earth?" India's role in the formation and functioning of the Non-Aligned Movement and its current active engagement with the G-20, illustrate the country's eagerness to engage with the world and making it peaceful, stronger and economically vibrant.

In putting together this book, Guha proposes that "the tradition of the thinker-activist persisted far longer in India, than elsewhere." He speaks of five significant transformations that are currently underway. For one, he says the industry and the services sector are increasingly contributing more to the economy. Then he says India is more stable as an independent nation, its democracy is firmly established as the central political system, urbanisation is rising, and a universal social transformation is taking place. He forcefully

India's first Nobel laureate, Rabindranath Tagore, felt a deep humanism and believed in universal values for mankind, values that are still reverberating, as India strives for global harmony

argues that the political leaders in India themselves were the activists on the road to Independence. He notes that the thinkers differ in their perspectives, but they are all "always instructive."

The writer talks about India's unique evolution as a democracy known to the world at large. Most contemporary political discourses draw upon established Western philosophical models. This book proffers a new viewing angle on the same thought. The author says that India can serve as a great example to other developing economies on how a nation-state can protect its diverse peoples and cultures. Arguing that India is one of the few countries to have successfully married "nationalism with internationalism," Guha urges the world to study the Indian political experience and draw lessons for today's challenges.

Mahatma Gandhi's vision of the village model for India served as the template for the successful Mahatma Gandhi National Rural Employment Guarantee Act (NREGA). Gandhi had written of an India where "...every village will be a republic or panchayat having full powers. It follows, therefore, that every village has to be self-sustained and capable of managing its affairs..." Gandhi had imagined an ideal system of

BOOK EXCERPTS



Gandhi: "Those alone can follow the path of passive resistance who are free from fear, whether as to their possessions, false honour, their relatives, the government, bodily injuries, death."



BR Ambedkar: "Bhakti in religion may be a road to the salvation of the soul. But in politics, Bhakti or hero-worship is a sure road to degradation and to eventual dictatorship."

governance, built on "innumerable villages, with ever-widening, never-ascending circles." Guha says Gandhi's vision is reflected in the trend towards decentralising power across India.

As India emerges as a world power, it is being invited to assume new global responsibilities. In that context, this book sheds some light on how our early leaders viewed international relations. More than anything, they showed a certain idealism and optimism in the dawn of Independence. As India's first Prime Minister, Jawaharlal Nehru, remarked in his famous "Tryst with Destiny" speech, "At the stroke of the midnight hour, when the world sleeps, India will awaken to life and freedom. A moment comes, which comes but rarely in history, when we step out from the old to the new, when an age ends, and when the soul of a nation, long suppressed, finds utterance."

As we step into the second decade of this millennium, a new age is indeed dawning. From a fledgeling nation struggling to find its feet, India has emerged as a significant global political and economic power to reckon with. Slowly, but surely, that pure thought of our founding fathers is turning into solid action. ■