livelihoods

today and tomorrow

Technology

Happy Budhdha! Happy 100 years of Gurudev!

In the thick of Bye-polls in AP! A1 in jail too! Rains seem to be normal but getting late!

Let there be smiles forever on the faces of children everywhere. Let there be no innocent child victims in any aggression. Let the child labour wither away.

Let there be environment for life support to all, including the poor. Let the droughts and deserts turn green slowly.

Let the patients get adequate blood when they need.

Let us have music, pleasant and soothing, in its diverse forms.

Let us celebrate public service and encourage it.

Let there be no 'drugs'.

Let the fathers have a day too.

Homo sapiens sapiens is a curious and experimenting animal. From discovering stones to hunt, sharpening them, inventing fire to cook and have light in the night, signal communication, sounds on the stones, trumpets etc., music and dance, the journey is a journey of technology. From pre-agriculture to agriculture, including water harvesting to irrigation, domesticating livestock, milking and drinking milk, eating cooked food, housing, jewellery, safety and security, astronomy and warfare, language, printing, industry, information technology and bio-technology, to social engineering and psychology, all are processes, products and results of technology. Technology has been the great divider and techynology has been the great leveller. Technology brought wars and technology brought peace. Technology killed people and technology brought comforts to the humankind. Civilization in essence may mean technology applied for the larger benefit of the mankind. Technology may be neutral but its application makes all the difference. And there is no domain that does not have some technology or the other – simple, appropriate, complex, cheap, costly, labour-intensive, capital-intensive, energy-intensive.

Some technologies create poverty and some reduce poverty. Some have both results simultaneously. Technolgy is a key ingredient, either way, in the value-chains of livelihoods of the poor. It can increase employment. It can increase the cost of the labour and retain value-addition locally. It may need capital. It may require trained persons. They may require training. Poor may not be access them. But, they need to access them. They may need to come together at various levels to access them. Technology may improve the institutions. Technology may facilitate governance. Technology may reduce drudgery. Technology may increase transparency and accountability. Technology may reduce duplication and redundancy. It is in this context, 'livelihoods' has focused on 'technology'.

Sam Pitroda, the father of technology missions in general and telecom in particular, is instrumental in every house having a communication instrument. Society for Energy, Environment and Development, SEED, promotes solar energy-based technologies/devices. Chalk making is an evergreen enterprise to supply pieces of chalk to schools and colleges across. Adrian Moyes' 'Poor Man's Wisdom' discusses the local and low-cost technologies and skills as an alternative to other technologies. 'Kshetram' discusses the livelihoods of Bundelkhand.

With the appreciation that technology applied with pro-poor orientation, in consultation with and with approval of the local communities improves their lives and livelihoods surely, I remain thinking of ways to make it reach the poor.

G. Muralidhar

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livelihoods

'livelihoods' team

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Inside ...

I found the April issue informative. I particularly liked the "Legend" article on Aruna Roy.

Jampanna

Warangal.

News

BCs Seek Allocations on the Lines of SC/ST Sub- plan, Hyderabad: The government should make a separate budgetary allocation for BC welfare programmes, on the lines of SC/ ST sub plan, and take steps to address their problems, the delegates at the State plenary of the Backward Classes Welfare Association demanded. The governments at the Centre and the State have not kept their promises to the BCs, president of the AP BC Welfare Association R Krishnaiah said. He demanded that the government introduce a Bill in Parliament on quota for BCs in legislative bodies. He also demanded electoral reforms to enable representation of different communities in proportion to their population in the country. A number of BC leaders representing youth, students, women and employees, from the districts attended the plenary. The delegates were critical of political parties for not keeping their promise to give due representation to BCs.

Potato Cultivation in Hassan and the Bihar, Bihar: Potato cultivation in Hassan district has a close association with Punjab and Bihar. While farmers from Punjab bring seed potato, labourers from Bihar work in cold storage units where they are kept. The Hassan district administration began sale of seed potato at the Agricultural Produce Marketing Committee yard on May 10. Since then, nearly 100 youth from Bihar are seen loading bags of potato from various cold storage units into lorries that are taken to the APMC yard. The temperature in cold storage units is normally between 4 degrees Celsius and 6 degrees Celsius. Sometimes, it is even maintained at 2 degrees Celsius. These labourers are seen tuning into FM radio channels on their cell phones to listen to popular Hindi songs while they work. "We don't get local people to work in the cold storage units," said S.N. Pratap of Perfect Cold Storage. Most of these workers are from Bihar and West Bengal.

14,000-crore Plan for Punjab: The Annual Plan for Punjab for the current fiscal has been finalised at Rs.14,000 crore at a meeting here between Planning Commission Deputy Chairman Montek Singh Ahluwalia and Chief Minister Parkash Singh Badal. Initiating the discussions on Punjab's Plan performance, Mr. Ahluwalia lauded the State Government's efforts towards improving the health of the State's economy as also initiatives targeted at providing a boost to sectors such as health and education. To address the State's water-related problems, Mr. Ahluwalia called for focused attention to tackle falling ground water levels, water-logging in some districts, improvement in the quality of drinking water and supply and cleaning of village ponds. The Planning Commission, he said, has decided to send a team of experts to Punjab for a comprehensive review of the water situation. Commenting on the development needs of Punjab, Union Planning Minister Ashwani Kumar drew attention to the State's border districts which have had to bear the brunt of many wars and terrorism over the years leading to the exit of industry and private investment from these areas Briefing the Commission, Mr. Badal said the focus of the 2012-13 Annual Plan would be on development of infrastructure such as power, roads, rural water supply and sanitation, water supply and sewerage and sewage treatment plants in municipal areas. Health and medical education, he said, would continue to be the thrust areas.

Rs. 890-cr. Package Sought to Develop 4,289 Tanks, Karnataka: Minister for Minor Irrigation Govind Karjol on Friday said that he had presented a proposal for a Rs. 890-crore pilot project to the Union Water Resources Minister Pawan Kumar Bansal for taking up integrated development of 4,289 tanks in Kolar and Chickballapur districts, so that they would not only supply water to irrigation and drinking purposes, but also raise the groundwater table there. Speaking to presspersons here, the Minister said that the two districts had the largest number of tanks in the State, where the water table had gone down to more than 1,000 ft. Drinking water drawn from a borewell below 200 ft was unsafe, the Minister added. He said that Mr. Bansal was told that the State Government was ready to share 25 per cent of the project cost. Mr. Karjol said that he had discussed it with Union Minister of State for Railways K.H. Muniyappa and had sought the cooperation of Union Minister for Corporate Affairs M. Veerappa Moily, who represent the two districts in the Lok Sabha. The Minister said that he had convinced the Union Water Resources Ministry to sanction Rs. 885.49 crore under the Accelerated Irrigation Benefit Programme for taking up 729 works in 87 drought-prone taluks to develop barrages, pick-ups, tanks and "bandharas", and 70 per cent of the works had been completed. This had helped farmers to draw water directly from these facilities.

Rs. 650-Crore Water Scheme for Villupuram, Tamilnadu: Chief Minister Jayalalithaa has sanctioned a sum of Rs. 650 crore for the implementation of a comprehensive water supply scheme for Villupuram. Once this is completed, two municipalities, four town panchayats and five panchayat unions in Villupuram district will get sumptuous water supply, Commercial Taxes Minister C.Ve. Shanmugam has said. Speaking at an official function held on the premises of the Government Girls' Higher Secondary School here recently, he said water would be tapped from the Kollidam for the new scheme. Preliminary works at this point had been completed. Besides residents of the Villupuram and Tindivanam Municipalities, those in town panchayats of Ulundurpet, Thirunavalur, Thiruvennainallur and Vikkiravandi and panchayat unions of Ulundurpet, Kaani, Koliyanur, Vikkiravandi and Mayilam would benefit from the scheme. Mr. Shanmugam also said that for promoting sports, the Chief Minister had sanctioned a sum of Rs.1.5 crore for construction of an indoor stadium in Villupuram. It would be located either on the integrated Collectorate complex or municipality grounds. ❖

Sam Pitroda

Sam Pitroda is an internationally respected development thinker, policy maker, telecom inventor and entrepreneur, who has spent over four decades in Information and Communication Technology and related human and national development initiatives. Credited with having laid the foundation of India's technology and telecommunications revolution in the 1980s Mr. Pitroda has been a leading campaigner in helping bridge the global digital divide.

Satynarayana Gangaram Pitroda is better known as Dr. Sam Pitroda. He is an inventor, entrepreneur and policymaker. He is currently the Chairman of India's National Knowledge Commission.

He is the Chairman and CEO to World-Tel Limited, an International Telecommunication Union (ITU) initiative. C-SAM, an MNC for which he is CEO, has developed an m-Commerce application called OneWallet. He has served as advisor to the United Nations in 2002.

He was born at Titlagarh, Orissa in 1942. His parents hail from Gujarat but migrated to Orissa. They were deeply attached to Mahatma Gandhi and his philosophy. Sam Pitroda and his brother were sent to Gujarat to imbibe the Gandhian Philosophy. Mr. Pitroda completed his school from Vallabh Vidyanagar in Gujarat and a Masters in Physics and Electronics from Maharaja Sayajirao University in Vadodara. He did his engineering from Illinois Institute of Technology in Chicago.

Mr. Pitroda lived in Chicago, Illinois since 1964, with his wife and two children. Throughout the late 1960s and early 1970s he engaged in research in telecommunications and handled computing. His invented the Electronic Diary in 1975 which is now regarded as one of the earliest examples of hand-held computing devices. With over 100 patents to his credit, Pitroda has been a leading name in telecommunications and information technology for over three decades. He went on and found Wescom Switches which was later acquired by Rockwell international where Mr. Pitroda became Vice-President.

In 1984, Mr. Pitroda was invited to India by the then Prime Minister Mrs. Indira Gandhi. On his return he founded the Center for Development of Telematics (C-Dot) under the Indian government. In 1987, he became advisor Rajiv Gandhi and was responsible for shaping India's foreign and domestic telecommunications policies. He is largely considered responsible for the telecommunications revolution in India and specifically, the ubiquitous, yellow-signed Public Call officers (PCO) that quickly brought cheap and easy domestic and international public telephones all over the country. An unpleasant and public disagreement with ministers over policies of the Government led to his exit from public service and return to Chicago. For the subsequent decade, Pitroda continued his business interests manufacturing and software.

During his tenure as Advisor to Prime Minister Rajiv Gandhi in the 1980s, Mr. Pitroda headed six technology missions related to telecommunications, water, literacy, immunization, dairy and oil seeds. He was also the founder and first chairman of India's Telecom Commission. In these roles, he helped revolutionize India's development policies and philosophies with a focus on access to technology as the key to social change.
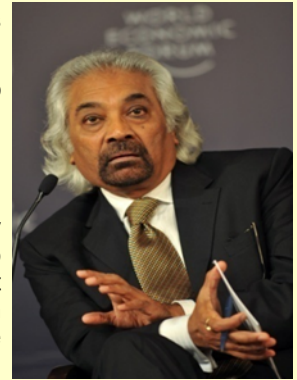
When the United Progressive Alliance (UPA) government came to power following the 2004 General Elections, Prime Minister Dr. Manmohan Singh, invited him to head the National Knowledge Commission of India.

In July 2009, the Government of India anointed him head of an expert committee on ICT in Railways. In October 2009, Sam Pitroda was appointed as Advisor to Prime Minister of India (Dr. Manmohan Singh) on Public Information Infrastructure and Innovations.

In August 2010, Innovation Council headed by Sam Pitroda, with special focus on micro, small and medium enterprise for 2010-20.

In the Indian Railways Budget 2012, Sam Pitroda was announced to head Railway Modernization plan. His candidature is also fray as a potential candidate for presidential election 2012 which is highly unlikely as political parties' choice is differed.

He is currently Advisor to the Prime Minister of India on Public Information Infrastructure and Innovations and is Chairman of the Expert Committee on the use of ICT in Railways. He is also the Chairman of the Smart Grid Task Force set up under the aegis of the Ministry of Power, Government of India. He has recently been appointed the founding Commissioner of the United Nations Broadband Commission for Digital Development.

In 1993, Mr. Pitroda helped established the Foundation for Revitalization of Local Health Tradition (FRLHT) near Bangalore in India. At present, he is Governing Council Member. The aim of the foundation is to make full use of India's rich and diverse traditional medicinal knowledge. Pitroda also serves on the IIT International Board of Overseers.

The knowledge and dedication of Sam Pitroda had brought him number of laurels from around the world. He was accorded the Padma Bhushan award in 2009. Some of the prestigious awards bestowed on him include the Dataquest IT Lifetime Achievement Award (2002), Skoch Challenger Lifetime Achievement Award (2009) and Rajiv Gandhi Global India award in 2009. ❖

Sangam Radio

Deccan Development Society (DDS) in Medak district Andhra Pradesh, works for the upliftment of poor in this arid region. One of its many interventions is the Sangam Radio. Sangam was inaugurated by former Supreme Court Justice Mr. P B Sawant on October 18, 1998 in Machnoor a village in the Zaheerabad mandal of Medak district. Sangam is India's first community radio programme and the first all-women community radio station in Asia. The radio station is located in Machnoor. DDS helped the radio secure a license.

25 years ago, Zaheerabad's villagers suffered to meet minimum needs. DDS intervened to make their lives better. DDS also formed SHGs of women in the area. The idea of community radio was floated to create awareness among the community about various social issues and also as a method to preserve and promote the local culture.

UNESCO supported the DDS in setting up the radio station. Today, the radio is completely owned, managed and operated by women from marginalized rural communities. The radio reaches of 30 kms within

Machnoor, covering about 75 villages and a population close to 50,000.

The radio station is designed as an FM station, i.e. it works on audio cassette technology. It has a 100 watts transmitter. All India Radio station had given training on the maintenance of the radio station and operating the technology at the station.

The station is part of the 'Women Speak to Women' initiative supported by the UNESCO. Each member of

DDS' SHGs (5000 members in 80 groups) contributes Rs. 50 yearly towards the maintenance of the radio station.

The radio station is run by SHG women. Field supervisors give content for the programmes, prepare programme schedule, etc. When SHG women want their topic aired, they record a show at the studio and in the local language. After that edit member's select and play according season and situation.

The programs run daily from 7 Am to 9 Pm. Various issues related to- There are various activities in the radio program like Mana Oori Pantalu, Mana Bhasha, Aarogyam, Aadolla sangalu, Yarandla muchatlu, Oorivarthalu and village songs.

- agricultural needs of semi-arid regions

- Education and literacy – both formal and non-formal

- Public health and hygiene

- Environmental and ecological issues

- Biodiversity and food security

- Gender justice

- Local/indigenous knowledge systems

Local cultures, with emphasis on the narrative traditions of song and drama. There is also a call-in feature for listeners to clarify their doubts. The radio station received the got Manthana award in 2009. ❖

Bundelkhand

The Bundelkhand region comprises of 12 districts of northern Madhya Pradesh (MP) and 5 districts of southern Uttar Pradesh (UP). It is located in the central Hindi belt south of the Yamuna River, between the fertile Gangetic plain stretching across northern UP and the highlands of central MP.

The region is part of the Narmada Valley and has dry, deciduous forests. It had a thick forest cover until the late 18th century, when intensive logging of the forests accelerated. Deforestation accelerated after the consolidation of British control in the 19th century.

There are approximately 21 million people in the region of which 82% live in rural areas. More than one-third of Bundelkhand's population is considered to be Below the Poverty Line (BPL). The literacy rate of the region is lesser than the national average at 55.73 than the national average and women's literacy rate is much lower at 40.99 per cent.

Bundelkhand has been historically riddled with caste-based discrimination and has provided impetus to vote-bank politics in the post-Independence era. A significant percent of the population are OBCs and SCs. Major sub-castes/communities of the region include Ahirs (traditionally cattle-breeders and milkmen), Gadariyas (who traditionally rear sheep); Koris (weavers), Kurmis (cultivators), Kachis (vegetable cultivators), Lodhis (landlords/royalty), Arakhs hunting tribes with martial arts, Telis (oil-pressers), Sonars (goldsmiths), Nais (barbers), Darjis (tailors), Dhobis (washermen) and Kumhars, or potters. Rajputs, or Thakurs, were the largest community of landlords and continue to be the dominating castes in Bundelkhand.

The major towns in Bundelkhand are Jhansi, Datia, Damoh, Panna, Mahoba, Banda Narsinghpur and Chhatarpur. The region is also home to Khajuraho, an ancient city and a much sought after tourist destination.

With few rivers and sparse rainfall, the region is hard pressed for water. Groundwater is scarce due to a layer of granite right beneath the crust. Modern pumps and tubewells also prove ineffective. Traditional ways of holding water, such as tanks, have fallen into disuse.

Bundelkhand is considered to be one of the poorest regions in the country; some term it to be three decades behind other parts of the country. The insecurity of livelihoods and lack of supportive governance have compelled large swathes of the population to migrate out of the area. Climatic uncertainty have resulted extended and frequent spells of drought. This has drastically reduced agricultural yields.

Agriculture and allied activities is the primary source of livelihood for 74.55% of people in the region. Over 80% are small and marginal farmers. Overall, crop yields are poor due to inadequate irrigation, and erratic rainfall.

Agriculture in Bundelkhand is vastly rain-fed, diverse, complex, under-invested, risky and vulnerable. Agriculture labour work is the primary livelihood opportunity for the SC and ST communities. Traditionally, farmers in Bubdelkhand cultivated gram and wheat in the rabi season and jowar and bajra in kharif season.

The cropping pattern has undergone changes over the years. Currently, pulses and wheat are the main crops across Bundelkhand, with wheat accounting for the highest area under cultivation in most districts.

Bundelkhand has vast deposits of minor minerals such as granite, stone chips, stone powder, silica sand and riverbank sand. Mining and quarrying are the major non-farm activities in the region and provide employment to large numbers of manual labourers, who mostly belong to SC and ST communities. Mining is carried out indiscriminately, eroding precious natural resources at a rapid pace. Further, the local mining industry does not maintain health and safety standards in the interest of the workers. Incidences of silicosis, tuberculosis, skin ailments and accidental deaths are high.

Forests in Bundelkhand have been a major source of livelihood and food for poor people- both tribal and non-tribal. Their livelihoods are threatened by the depleting forest cover. Also, conservation efforts prohibit people from entering protected forests and gathering minor forest produce such as amla, chiranunji, mahua, tendu leaf, seasonal fruits and vegetables and herbs, medicinal plants and honey.

Local crafts too are on a decline. Different parts of the region are home to unique crafts such as wooden toys and silver fish. Weaving (Jaitpur Khadi), oil-milling, carpentry, leatherwork, etc, are also common livelihoods.

Bundelkhand is also notorious for instances of crime, caste and gender discrimination. The region is home to a number of dacoits who have remained elusive to the law for long thanks to political backing. The region fares low on gender equality and crimes against women are common. This general sense of insecurity is also a reason for low investment in the region. Bundelkhand is in the list of 100 extremely poor regions. Leading factors of its poverty are deforestation, indiscriminate mining and depletion of natural resources. ❖

Huge shortage of high-calibre men and women!

Happy Mothers' Day! Happy Budhdha Purnima! Let us Celebrate 100 years of Rabindra, his Gitanjali and his Sangeet!

Steep increases in Petrol Prices!

Bye-polls in AP on 12 June!

Will Telangana come?

Let us hope World Environment Day and World Day to Combat Desertification and Drought would guarantee pro-poor livelihoods and usher in pro-poor adjustments.

The streams of thought and work that continued to dominate the month include Four Contexts of the Livelihoods of the poor and perspective plans for the vulnerable and marginalized.

Viswanathan Anand is again the winner of the chess world championship. Inspiration to the nation!

Constitution was amended (97th Amendment) to insert Article 43B "the state shall endeavour to promote voluntary formation, autonomous functioning, democratic control and professional management of cooperative societies" in January 2012. This should pave way for seeking more forceful autonomy for cooperatives and collectives in the country. Still the doubt persists about whether we would like to consider producers' companies as cooperatives or not legally. This needs to be clarified at the earliest.

Perspectives

G Muralidhar

Bhumi Team has developed 'The Bhumi Entrepreneurship Manual' as a draft to teach entrepreneurship through experiential learning exercises – being and doing types. Rightly, they have identified four stages of support/capacity building, after identifying the potential entrepreneur – training (both classroom and apprenticeship), incubation, mentoring and lifetime support as part of the network (hub) of enterprises. Good effort forward. Let us join hands to make it more robust and take it to more and more self-employed, entrepreneurs and trainers.

We know that we have to pursue whatever we have passion for. Vinod Khosla says the same. The moot question is how do we counsel our youth to take up their passions and succeed? Do our skill and entrepreneurial missions geared up for this? How do we build them for taking risks and fail despite hard work before they succeed. Do we have 'safety' mechanisms for these? Entrepreneurs need IQ – yes but also EQ. Can we learn EQ? Can we teach our entrepreneurs EQ, please?

Again, Sheryl Sandberg, Facebook also says, apart from talent, skill, imagination and vision, we need the ability to communicate authentically, to inspire people around, to listen and learn each and every day. Learning is an important competency for being an entrepreneur, an intrapreneur, a manager or a leader. How do teach learning to entrepreneurs? How do we teach metafishing to them? World around us is changing very fast. Changing dramatically! How are we teaching them to cope with this change and the pace of change? Let us build our skills and not resume. Let us evaluate what we can do. Let us do real work. Let us speak truth in simple and clear language. Let us seek out truth and honesty. **Let us bring our whole to work. Let us keep in touch.**

MGNREGS has expanded its portfolio of works to include - water conservation and water, drought proofing; irrigation canals including micro and minor irrigation works renovation of traditional water bodies including desilting of tanks; provision of irrigation facility, dug out farm pond, horticulture, plantation, farm bunding and land development on land owned by specified households common land development; flood control and protection works; rural connectivity, drinking water and sanitation; agriculture, livestock, fisheries

Now, the need is to include the works of the artisans, disabled, aged etc., so that all the poor who seek employment can be given work in the areas of their ability and skill.

World Development Report, 2012 and World Health Report, 2012 are released during the month. As a part of our annual ritual of reminders, we still have to go a long way in the health indicators and gender indicators. Of course, there is significant development on one hand. On the gender front, we need to address the issues of excess deaths of girls and women, persisting low access to economic opportunities, not adequate voice within the household and society and gender inequality persisting across the generations. The hope is in the organization of women that is becoming a silent movement and revolution in the country.

The recent NABARD circular on SHGs is expected to facilitate more bank linkages. It says about 8 million SHGs are in the country covering 100 million households. It seeks allowing voluntary savings, apart from the mandatory savings; providing cash credit/overdraft system to SHGs; joint liability groups within SHGs for economic activities; bank's risk mitigation through self-rating of SHGs, SHG audit, SHG-level business facilitators; and building second-tier institutions for nurturing and supporting SHGs. **We hope that SHGs get improved support from banks and the poor do not have to go to high-cost credit providers.**

Prime Minister presented a report on completing 3 years of UPA-II office recently. He states that poverty is declining. Agricultural wages are increasing. Foodgrain production is at record levels. MGNREGS has reached 50 million households. No polio case has been reported since January 2011. But we need to work on bridging the huge shortage of adequately skilled manpower in the country.

That seems to be the key even for the poor, their organizations and the organizations that work for them. From this national scarcity, we need to identify young men and women interested. Surely, many of them will not have competencies required. The bright amongst them may not be interested nor committed. That is the challenge. We need to mobilize and nurture high-calibre young men and women to stay and work with/ for the poor for reasonable periods and offer love.

Technology

Technology is the application of scientific knowledge to make human activity efficient and less time-consuming. The phenomenon of technology has existed since time immemorial. If anything, its influence and presence has increased over the ages. Right from the invention of the wheel, humans have been improvising and coming up with better and more efficient forms of technology.

Technology is the application of scientific knowledge to make human activity efficient and less time-consuming. The phenomenon of technology has existed since time immemorial. If anything, its influence and presence has increased over the ages. Right from the invention of the wheel, humans have been improvising and coming up with better and more efficient forms of technology.

Today, there is hardly an aspect of life that technology has not touched. Technological innovations are influenced by the prevailing economic and social conditions. Technology has always been integral to livelihoods. The plough, pottery wheel, loom, shovel and other tools were early interventions that were used to enhance efficiency in livelihoods. Back then, the tools were used to reduce drudgery. With the onset of the Industrial Revolution, the scene of technological inventions shifted from small laboratories to large R&D centres. Technology was no longer considered as a tool to reduce human effort alone, but was seen as the linchpin of increased profits and economic growth. The Industrial Revolution had seen production shift irreversibly from being labour intensive to technology intensive, putting scores of small-scale producers out of work. The complex and large-scale nature of the new technology made it unimaginable for the average producer to invest. The Industrial Revolution was also the time that the modern idea of "economic prosperity" had begun gaining ground. Largely, gaping divisions between the rich and the poor can be traced back the

Revolution and the gap has only been widening since.

The deepening of this crevice between the rich and poor is to be understood in light of the heavy investment new-age, science-based technology demands. Most technological innovations evolve out of the existing forms of technology. Therefore, new technologies require heavy infrastructure-electric grids, satellite towers, et al.- which is missing in most rural/remote areas where the poor dwell. This lack of infrastructure has meant that the poor have continually been kept out of the technology revolution that has taken the rest of the world by storm.

The potential of technology to solve fundamental problems of the poor- lack of health-care, education, efficient livelihoods practices- is increasingly being realised. In fact, there are already numerous interventions underway to take modern technology to the poor and make their lives better.

The turn of the 21st brought with it a new era of technology where it is easy to access and use high-end technology. It has made the world a smaller place, enabled communication at the push of a button. A new form of technology-Information & Communication Technology (ICT) took precedence. ICT has brought communication to prominence like never before. Another dimension to this revolution has been the affordability of ICT which has enabled the poor to catch up with the rest of the

world. For long, technology was not leveraged to benefit the poor. But now, new technologies-both high-tech gadgets and low-end widgets are being introduced to simplify lives of the poor.

Technology of the Poor

Often, the poor are associated with low or primitive levels of technology. While these technologies may not be sophisticated like modern technological contraptions, they are just as useful to the poor.

Many forms of technology have been in use for ages and serving millions in simplifying their lives. For the large part, these technologies are eco-friendly and make optimal use of locally available materials. These technologies, also known as rural or indigenous technologies are gaining popularity to combat the energy and technological challenges the poor face.

For long, these technologies had been considered obsolete and inefficient to usher and support the poor in actively participating and contributing to the modern economy. While they may be no match to modern technologies in terms of scale and operations, these technologies have their own advantages. For one, rural

and indigenous technologies do not guzzle non-renewable sources of energy like their new-age, high-tech counterparts do making them more energy efficient. Moreover, they do not require a massive infrastructural base. Further, indigenous technologies make use of waste rather than create it. On the other hand, modern technologies spew non-degradable wastes that erode the environment. Indigenous technology *aids* labour in production rather than *replace* manpower.

Making cooking less hazardous: Smokeless Chulhas

While these technologies may not help rural poor in mass production, the technology is more to support their survival. Rural technologies may not necessarily be old, traditional or static. They are based on locally available knowledge and not so much on understanding of science. The knowledge is dynamic and differs from place to place. Therefore, rural technology is born to meet local

necessities and adapts to the need of the hour. Further, rural/local technology cannot be avoided given that local information is more credible and valid that the knowledge that comes from outside.

Bio-gas, smokeless chulhas, solar lanterns, pedal pushed mills are all examples of indigenous technologies that have made day-to-day lives of poor simpler. The smokeless chulhas were introduced to reduce esposure to carbon emission of traditional chulhas. Solar powered lanterns have given poor an alternative to power-run bulbs and tube lights. The list of indigenous technologies could run into the thousands. It is unique to the area, and arises of local needs and resources.

Technology For the Poor

Many technological interventions of the poor have taken modern equipment to the poor rather than starting with the

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A Farm Tool Library: Making Mechanised Agriculture a Reality for Small Farmers

A women's SHG federation in Sagbara, Gujarat has come up with an innovative way to provide agriculture implements to poor farmers in the area. With support from the Asian Development Bank and the Aga Khan Rural Support Programme (India), the women run a farm tools library to cater to the needs of 500 farmers in 10 villages. The library includes a tractor, thresher, ploughs, and electric water pumps among other equipment. The tools are lent to the members at nominal rates on an hourly basis.

The library has been operational since 2008. It has en-sured that farmers in the area access heavy agriculture machinery which was otherwise out of their reach.

more in a lesser span of time. Another impact of the mechanisation of agriculture on the poor has been reduction in the manpower/labour required to be engaged in farming. This has deprived many poor households of their sole source of earning a livelihood.

Many farmers across the country have come up with innovative methods to combat the lack of access to heavy agriculture equipment vital to higher productivity. These ingenious mechanisms range from ox-ridden tractors to bicycle held pesticide sprayers. However, these innovations have not received enough attention nor have there been attempts to scale them up.

technology of the poor. These interventions have been in various avenues– agriculture, dairy, health, education and financial inclusion.

Technology has always been used by the poor in various production activities, more so in agriculture. The plough and shovel are the earliest examples of agriculture implements. Over the years, these tools have been improvised and made more efficient. Newer, heavier agriculture implements have been invented. This machinery has resulted in less time and toil on the fields. However, this is true of only large farmers who can afford them.

There are two factors that prevent the poor from accessing and using these tools- a) the expensive nature of these implements; and b) heavy implements are not suitable to be used on small land sizes. As a result, most poor, small farmers lose out to larger farmers who are able to produce

The use of these simple tools needs to be further accentuated in the light of the revelations of the adverse impact use of large machinery has on the soil and the land. Also, machinery such as tractors, disc harrows, etc. is not feasible to be used in all topographical conditions. These implements have been proved less useful in rocky areas. There is a need to introduce new, eco-friendly and inexpensive equipment.

Providing infrastructure across the supply chain for rural

Shea nut collecting is a primary avocation for scores of women in Ghana, Africa. The shea nut has great demand in the cosmetics industry, with companies ready to part with huge sums of money for the best quality of nuts. Yet, until recently, the collectors were unable to fully mine this opportunity due to a lack of market information, business experience and negotiating power. Their incomes were kept low and unstable as intermediaries sat on pricing information and used their market power only to their own advantage and not to the women's.

A few organizations came together to change this. The women were mobilized into a producers' group. Their leadership skills were cultivated and were provided the infrastructure support they needed to succeed. Thus, the Star Shea Network was born.

Leading software firm, SAP designed an order management and fulfillment software package that allows women to access market information on prices and demand via SMS. At the same time it gives buyers full transparency and traceability across the entire supply chain. The women's group was also provided a loan to purchase a shea-nut processor. Today, the network has its own website- starshea.com- through which it sells its produce directly.

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ICT has been the most user-friendly form of new-age technology and is percolating to the remotest of areas. In fact, most technological interventions to improve the lives of the poor have made most of the ICT-medium.

ICT has been extensively used to bridge the financial divide between the poor and the rich. Banking transactions are being made possible through mobile phones, thereby resolving an age-old problem of setting up physical branches in remote areas.

The ICT medium is also being put to use to transfer and share information within the supply chain. Information

produce especially perishables such as seeds, pulses, grains, fruits and vegetables is another major avenue of intervention. Lack of proper cold storage facilities, packaging units, has forced many a poor producer into distress selling of their produce. Most do not have access to storehouses to keep their produce till attractive prices for the produce are available.

Further, little support in terms of value-addition could go a long way in securing good incomes for the producers. Again, much of this infrastructure requires huge investment and requires large scale production. This is one of the reasons for the collectivisation of rural producers to form cooperatives and producers' organisations. Providing some value-addition support such milling, cleaning, etc. reduce the foot-miles between the producer and the final customer.

In other sectors, such as weaving, introduction of improvised technology has wreaked havoc on production. The handloom sector is a typical example of machine replacing human labour. Over the past four years, the adoption of power looms- which can produce twice the number of sarees a handloom can in a day- has put many a handloom weaver out of work. This has forced these weavers to give up their traditional occupations in search of other occupations.

Information and open channels of communication have become important factors to boost efficiency of production and economic activities.

regarding market demand, market prices, availability of raw material, etc. are all making production and marketing an easier and more profitable opportunity for the poor. Possibilities of technology to ensure food security to the poor are also explored. One method is to increase agriculture productivity through high-tech agriculture. There is another group that supports the use of bio-technology as a means to end hunger and starvation among the poor. The Green Revolution had introduced new agriculture practices- more mechanised and use of more chemicals- to augment agriculture productivity. While the Green Revolution has done a great deal to meet food security needs of the world as whole, it has not had the same impact on the food security of the household.

Four decades after the Green Revolution, questions are being raised about the ecological impact of the methods adopted in the Revolution. Extensive use of fertilisers and

pesticides has come under heavy criticism for their detrimental effects on soil quality.

There are alternatives to this method of farming. These alternatives entail the use of local technologies and optimal use of locally available raw materials. One such alternative that has gained popularity are kitchen gardens. The concept of kitchen gardens is to put small tracts of "wasteland" to farming purposes. Often, these tracts are very small, sometimes even a third of an acre. Cultivation of vegetables and fruits is encouraged on this tract. The idea is that the cultivator would consume this produce thereby cutting expense on food. Further, the methods of farming are eco-friendly. Natural manure or vermicompost is used in place of fertilisers and pesticides.

As modern medicine and health care becomes more dependent on technology, it is also leaving out a large number of poor in rural and remote areas. Poor health care technology in rural areas is characterised by erratic power

supply, lack of trained medical personnel and uncertain technology connectivity.

Of late, the advancement of ICT applications and their growing popularity among the poor have enabled remote medical diagnostic centres to be setup in rural areas. Essentially, these centres are equipped with basic medical instruments and with internet facility. The patient can contact a doctor through the kiosk. The kiosk is managed by one operator who is given basic training in medical aid.
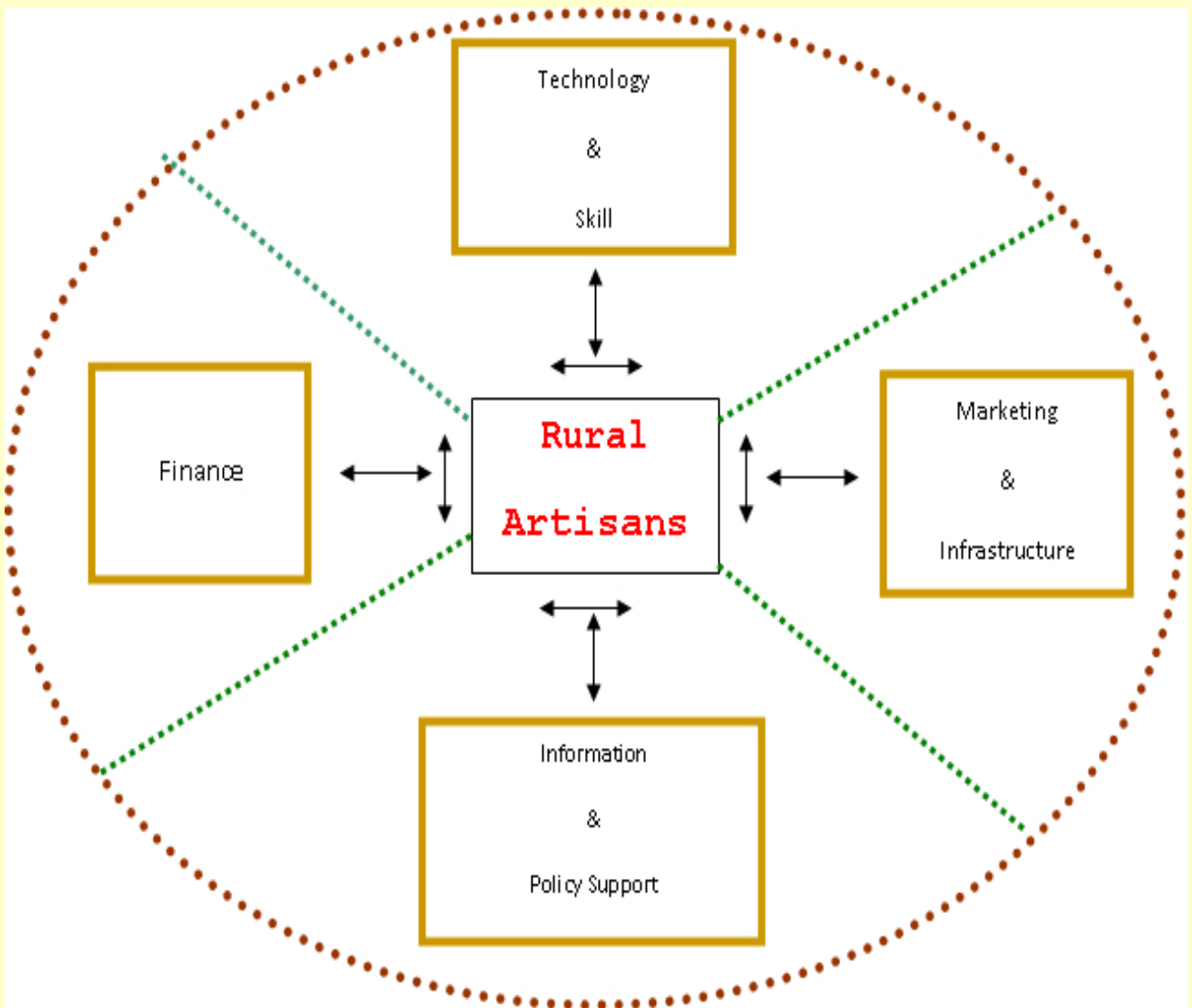
ISRO pioneered this initiative with the launch of the HealthSAT satellite. ISRO linked 22-super speciality hospitals in urban areas with 78 rural telemedicine centres. A telemedicine centre consists of a personal computer with customized software connected to medical diagnostic instruments, such as an ECG or X-ray machine or an X-ray scanner for scanning X-ray photos. Digitized

versions of patients' medical images and diagnostic details (such as X-ray images and blood test reports) are dispatched to specialist doctors through the satellite-based communication link. The information, in turn, is received at the specialist centre where experienced doctors examine the reports, diagnose, interact with the patients (along with local doctors), and suggest appropriate treatment via video-conferencing. The centre is user-friendly and takes little time and effort to be maintained.

Reconciling local technology with modern technology

Both rural/indigenous technologies and modern technologies should be used together to benefit the poor. Both serve different but equally important purposes . The way forward to transform lives of the poor using technology is by building on local technologies and adapting external technologies to suit local needs. Adapting external technologies is more complex than perceived. Most scientists and technologists wrongly believe that latest

Technology & Skill

Finance

Rural Artisans

Marketing & Infrastructure

Information & Policy Support

technological innovations are a panacea to the poor's problems. However, these technologies demand institutional changes in the local setting. Only in rare instances do foreign technologies get easily transformed in new settings. Technology needs time to be accepted in new areas. New technology needs to be introduced by insiders for it to be better accepted.

Technological inclusion is an important strategy for the poor to graduate put of poverty. Not only does modern technology have a lot to offer to the poor, the poor too have a vast repository of "clean" technologies to contribute to the world.

There are both positives and negative impacts of modern technology among the poor. Though most were left out of the technological sphere for long, they are fast catching up with the rest, thanks to the growing ubiquitous nature and affordability of technology.

There is enough scope in the technological sphere for its various types to co-exist; one need not replace the other. While adopting modern, science-based technologies to improve production, solve health and education issues, it is also important to preserve rural, indigenous technologies. These lesser-known technologies are eco-friendly and do not require a large capital base like other, modern forms of technologies do.

It is a fact that enough funds and resources are not dedicated to research and development in technologies that the poor require. This is because most R&D happens in richer countries and is therefore relevant to their context. Overall, only a fraction of the R&D fund is used for research in diseases endemic to poor countries (such as malaria). Bridging these disparities are important in efforts towards poverty reduction.

The ICT revolution that has caught on in rural and remote areas is a positive sign that the long-standing technical divide will finally close in. ❖

Chalk Making

Kongari Balratnam (29) belongs to Pochampally village, Dt.Nalgonda.   He lives with his father, mother and sister. He studied up to 7th class. He used to be a handloom weaver. He gave up the occupation in the face of declining income and high investment.

would make the chalk and supply it to the company and the owner would provide the raw material. The company owner would deduct the raw material amount from the price he pays to Balratnam and his friends.

Balratnam and his friends required 2 lakhs as initial

Sl. No	Particulars	Amount (Rs.)
1.	Investment for Big machines (Atchu is machine for chalk piece)	200000
	Monthly Expenditure	
2	Electricity Bill and water bill	400.00
3	Independent house rent	2000.00
4	Workers salary (1x3000)	3000.00
5	Kerosene+Oil (12 ltr for 30 days x 30 = 10800)	10800.00
6	10 Tons chalk powder	180000
	Total Monthly Expenditure	196200
Monthly Income		
	Monthly Income by selling Chalk piece boxes (Big) 2200X Rs. 100	220000
	Total monthly expenditure	196200
	Total net profit per month (for 3 partners (Each one net profit Rs. 8000)	23800

His neighbour ran a small chalk-making unit at home. He learnt that his neighbour was supplying chalk to a larger chalk-making company. Balratnam decided to join that company for Rs. 4,500/month. Two of his friends also joined him. The chalk-making company would sell chalk to schools and colleges in the area. After a few months working in the factory, Balratnam and his friends decided to set up their own unit. They came to an agreement with the owner of the company that they

investment. They borrowed this amount from a friend in their village at an interest of Rs. 2.

The business is running well and they have repaid their loan. When Schools and Colleges vacations will be there during that time production will not be transaction. Then, production will keep it for 1 month at their place only. ❖

Automobile Industry

In recent years the automobile industry in India has grown by leaps and bounds. In the automobile industry India ranks 9ᵗʰ in the world. India is one of the largest in the world and one of the fastest growing industries globally. Indian market before independence was seen as a market for imported vehicles while assembling of cars manufactured by General Motors and other brands. Indian automobile industry mainly focused on servicing, dealership, financing and maintenance of vehicles. After a decade from independence manufacturing of automobiles started.

Since independence the Indian automobile industry faced many challenges and road blocks like manufacturing capability was restricted by the rule of license and could not be increased but still it lead to growth and success it has achieved today. The country is expected to top the world in car volumes with approximately 611 million vehicles on the nation's roads by 2050.

India ranks 2nd in the global two-wheeler market, 4th biggest commercial vehicle market in the world, 11th in the international passenger car market and 5th pertaining to the number of bus and truck sold in the world. It is expected that the Automobile Industry in India would be the 7th largest automobile market within the year 2016.

The Economic progress of this industry is measured by the amount of goods and services produced which give the capacity for transportation and increase the sale of vehicles. There is a huge increase in automobile production with an effect by indirectly increasing the demand for a number of raw materials like steel, rubber, plastics, glass, paint, electronics and services.

From 1950 to 2004 Indian automobile company was slow growing closed economy from mid 2004 it became fast growing open economy. Given the breadth of the automotive industry from backward linkages to raw materials such as metals and logistics to forward linkages with dealerships and gas stations, India is one of the largest industries by manpower, directly or indirectly employing managers, scientists, mechanics, technicians, salespeople and marketers, amongst others.

India emerged as Asia's fourth largest exporter of automobiles, behind Japan, South Korea and Thailand. The global automotive industry designs, manufactures, and markets the World's motor vehicles. In 2008 alone, global production exceeded 70 million vehicles.

The automobile industry in India has contributed immensely to the growth of the automobile sector in the country. According to statistical data furnished by the Automotive Mission Plan, Department of Heavy Industry, Ministry of Heavy Industries & Public Enterprises, Government of India, the auto sector contributed 5.20% to India's GDP, 7.20% in the year 2010, and by the year 2016, the figure is expected to escalate to 10.40%.

According to the research of Society of Indian Automobile Manufacturers (SIAM), the overall vehicle sales grew by 30 % in May 2010 to 1,208,851 units, and 8 per cent over the previous month of April 2010. Two wheeler sales rose 29 %, with motorcycle sales increasing 26% to 725,311 units, and scooter sales rising% to 157,509 units in May 2010. Commercial vehicle sales rose 58 % in May 2010. The medium and heavy commercial vehicle (M&HCV) segment grew to 33.5 % at 245,058 units and total commercial vehicle (CV) sales went up to 38.3 % to 531,395 units in 2009-10. At an estimated 25 % growth, the M&HCV segment would be about 306,000 units; total CV sales would be about 664,000 units in 2010-11. Mahindra and Mahindra (M&M) is the world's number one tractor company by selling a record of 1.59 lakh tractors in 2009 surpassing John Deere of the US.

The Indian Automobile Industry is manufacturing over 11 million vehicles and exporting about 1.5 million every year. About 91% of the vehicles sold are used by households and only about 9% for commercial purposes. Two wheelers with a market share of over 76.49%, passenger cars with a market share of about 15.96% &Commercial vehicles and three wheelers share about 7.55% of the market between them. In 2009, India emerged as the fourth largest exporter of automobiles.

The Indian automotive industry consists of five segments: commercial vehicles; multi-utility vehicles & passenger cars; two-wheelers; three-wheelers; and tractors. The two-wheeler sales have witnessed a spectacular growth trend since the mid nineties.

Automobile industry contributes 4% of the national GDP

and accounts for 5% of the industrial output in India. It is moreover, a major employment generator in the country. The Indian automobile industry provides employment to around 13 million people directly or indirectly at present, a number that is likely to double by 2016.

The liberalization policies of government have been one of the biggest factors behind the industry's rapid growth. Supportive policy measures like relaxation of foreign exchange and equity regulations, reduction tariffs on imports, and banking liberalization leading to a boom in financing driven purchases and convenient EMIs have contributed to the present success of the Indian automobile industry.

With a number of foreign brands joining ranks with the domestic manufacturers, the Indian consumer is now flooded with choice. An average Indian can now select from a wide range of Indian and foreign products. Some of the major Indian players are Maruti Udyog, Tata Motors, Mahindra, Ashok Leyland, Hero Honda and Bajaj. Toyota, GM Honda, Daimler Chrysler, Ford, Volvo and Hyundai Suzuki are the key international players in the Indian Automobile market. However, despite the presence of foreign brands, the domestic companies are still the biggest players. Maruti Udyog and Tata vehicles share the top honours for passenger and commercial vehicles respectively.

As the automobile industry is developing rapidly, the job opportunities in this sector are going to remain huge, especially for trained professionals involved in key production areas. Foreign firms looking to invest on the local talent are likely to offer attractive remuneration and provide increased growth prospects for ambitious individuals, and local firms hoping to grow their footprints are also likely to step-up their hiring and upward movement of staff.

Due to the sudden growth in the automobile industry every year engineering colleges do witnessing students who want to pursue automobile or mechanical engineering courses. The engineering colleges in India are world famous and need no introduction. All the seven IIT's are among the best engineering colleges across the globe. The automobile engineering colleges in India are famous for their in depth teaching of automobile designing, manufacture and operation of automobiles and automobile components. The course includes a series of practical classes in which the students have to use their knowledge and skills to build live models and give a presentation about its functioning. Students from engineering colleges in India are demanded not only in the country but throughout the world. It is because of the solid training and knowledge back up that they receive from the automobile engineering colleges in

India. The placement scenario in most of the engineering colleges in India is excellent with the companies having a healthy relation with the colleges.

Every sector requires skilled professionals to look into the operations of manufacturing, selling, repairing, and improving the existing models of the cars. This has in turn given rise to a large number of working professionals in this sector thereby generating employment opportunities for millions.

It is also important to have the desired expertise to fix, design or engineer vehicles in the country. So, this has allowed the innumerable colleges and universities in the country to offer courses for the working professionals in this sector.

A student who has earned formal qualification in automobile course can take up any of the following career prospects to earn their livelihood at all the levels. They are as follows-

Automobile Mechanic

Automobile Engineer

Automobile Designer

Auto Body and Paint Specialists

Automotive Technician

Automobile Marketing/Marketing Executive

Automobile Trainer

There are institutions like Swami Ramananda Theertha Institute of science and technology and National Academy of Construction and many polytechnic institutes who are training youth in various automations. There is lot of scope for rural youth to take up livelihoods in this industry.

All the major automobile industries are geographically distributed equally in north, south, east and west of India, some of the Top Automobile industries in India are:

- Maruti Udyog Ltd.

- General Motors India

- Ford India Ltd.

- Eicher Motors

- Bajaj Auto

- Daewoo Motors India

- Hero Motors

- Hindustan Motors

- Hyundai Motor India Ltd.

- Royal Enfield Motors

- Telco

- TVS Motors

- DC Designs

   Swaraj Mazda Ltd

Some of the important companies and their details include:

Hindustan Motors:

One of the oldest car manufacturing companies in India, it has produced cars like Ambassador and Contessa. Having collaborated with foreign companies like Mitsubishi, and General Motors Corporation of USA, it has made an irrefutable mark in the manufacturing cars like the Lancer. Apart from this, the company has impressive manufacturing statistics in the field of passenger Cars, utility vehicles, and earthmoving equipment.

Mahindra and Mahindra:

Established in the year 1945, this company has given a cutting-edge dimension to the Indian automobile industry. It began as a general-purpose utility vehicle manufacturing unit and expanded its business to automative, tractor, MSL and inter trade. Presently, the largest company in the private sector, this company boasts of an advanced technological infrastructure and manpower.

Bajaj Auto Limited:

Established in the year 1945, Bajaj Autos started off as a trading company. It was responsible for marketing two-wheelers from Italy in India. Presently, one of the front runners in market capitalization, Bajaj Autos attained its license to produce two wheelers in the year 1959. With the help of technical collaboration from Piaggio of Italy, the company now boasts of being the top five automobile companies when it comes to annual turnover.

As the company's contract with Piaggio expired in the year 1971, it became the sole manufacturer of two and three wheelers under the 'bajaj' tag. Its manufacturing hub in Maharashtra has an annual production of 1.35 million.

Maruti Udyog Limited:

The first ever Indian company to manufacture low cost cars, in collaboration with Suzuki of Japan, Maruti is considered

GROSS TURNOVER OF THE AUTOMOBILE INDUSTRY IN INDIA
2006-07 TO 2010-11
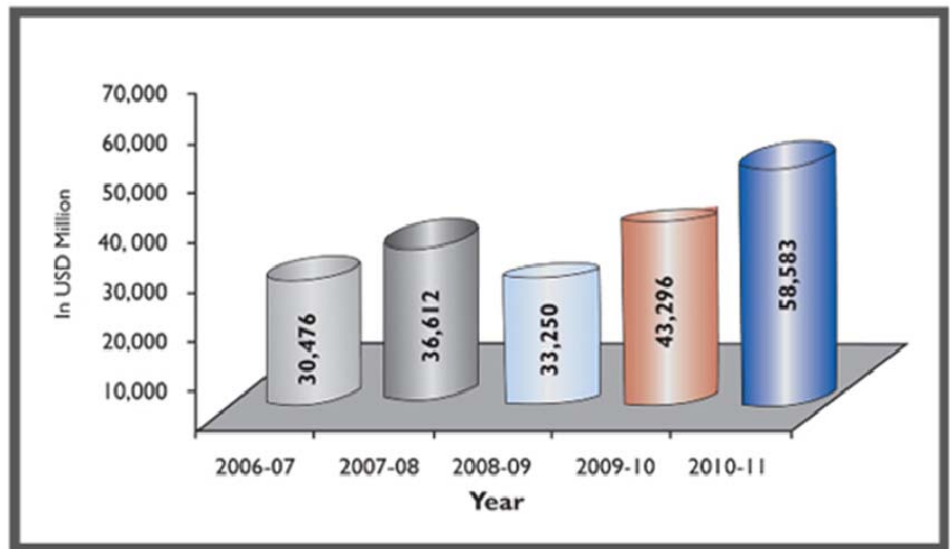
to be the largest automobile company in India. The company is known for producing high quality, fuel-efficient cars with Japanese technology, but adaptive to Indian roads. The company has attained the annual production mark of 3,20,000, which is a trend setter for any Indian company. Among the cars it has manufactured are the Maruti 800, Zen, Maruti Omni, Wagon R, Baleno and the like.

Tata Motors:

India's biggest manufacturer of commercial vehicles, the company boasts of an annual turnover of Rs 101.3 billion. It is counted among the top ten vehicle manufacturing companies of the world in 5-15 tonnes segment. Among its chief productions are light commercial vehicles, commercial vehicles, multi-utility vehicles, and passenger cars.

TELCO has launched numerous car brands in collaboration with foreign companies like Cummins Engine Company, USA, Daimler Benz A.G.and Holset Engineering Company, U.K. Using technology that not only cuts out on the pollution but also the cost, the company has manufactured vehicles like Tata Safari, Tata Sierra, Tata Estate, and Tata Mobile.

Presently, the company has a market share of 6.4 % in the luxury car section and 31.2% in the manufacturing segment of multi-utility cars.

Brand name, adaptability to Indian roads, and fuel-efficiency are the key factors that have led to the growth and development of the Indian automobile industry. Moreover, liberalization of government norms and policies for foreign investment, technology and easy loans has added to the advancement of this industrial sector.

The development story of the Indian automobile industry cannot be complete without mentioning the Pioneer Mr. J.R.D Tata's role in setting up the Tata group with high standard Engineering Research Centre (ERC) in 1965 to facilitate technological advancement. Pioneering the indigenization of scientific knowledge for trucks in collaboration with Mercedes Benze and launched Maruti 800 in the year 1983 which changed the dynamics of the passenger car sector in India. It was also known as the people's car. 60% of the Indian commercial vehicle market is dominated by Tata Motors.

- The first automobile was launched in India in the year 1897 in Bombay.

- Today India is being recognized as a potential emerging auto market.

- The industry adds up foreign players to their investments.

- 80% of the segment size is contributed by two-wheelers & motorcycles.

- Indian passenger vehicle market is dominated by cars (79%) unlike the USA.

- India is the largest three-wheeler & two-wheeler market in the world. It is second largest tractor manufacturer in the world, fifth largest commercial vehicle manufacturer in the world.

- India crossed the 1 million mark as the fourth largest car market in Asia recently.

- The industry is expected to grow to US$ 40 billion by 2015 from the current level of US$ 7 billion in 2008. By the year 2016 the industry is expected to contribute 10% of the nation's GDP.

All this signifies a positive trend for the automobile industry as a whole, and holds promise to create more jobs in manufacturing. The skill development sector in country needs to recognize this potential and prepare appropriate programmes to train large cadres of unemployed youth to be absorbed into this sector. ❖

7 May
National Tourism Day

I Strive to Become Independent

Rajitha, 30, lives in Rasoolpura slum in Hyderabad. Her family migrated from their village in Nalgonda 22 years ago. She shares how she rises out of day-to-day challenges with "Livelihoods".

Q: When did your family migrate to Hyderabad?

A: Actually, we did not originally want to move out of our village but some compelling circumstances arose. Twenty years ago, we had no concrete means of income, except agriculture exclusively did not provide sufficient amount of money. We took loans for agricultural purposes from money lenders and relatives. We were unable to repay the loans and had to sell all our assets to come out of debts. After this, my parents saw no point in continuing in the village and decided to move to Hyderabad in search of better opportunities. At that time, I was only 8years old. We had to live in a hut until the government provided us a Pucca house under the Rajiv GruhaKalpa Scheme.

Q: Tell us about your family.

A: I live with my mother, sister-in-law, and two younger brothers. One of my brothers is married. My mother works as a maid servant, while my little brothers work in private companies. My sister-in-law is a home-maker. My brothers are working very hard to make ends meet; even my mother who is old is doing her best to contribute.

Q: What are you education qualifications?

A: I studied up to S.S.C (Secondary School Certificate) in Saraswathi Karya Vidyalaya High School in Ranigunj. I did not aspire to go for higher studies because my family faced financial problems at that point of time. We had to sell all our assets as we had lost all sources of income.

Q: What do you do for a living?

A: I maintain books for five SHGs of the disabled and also give tuitions to my neighbors' children during the evening. Currently I teach 10-15 children daily. The students study in different classes- from LKG to 6th standard. Sometimes, I offer suggestions to slum level federations and groups in our slum. As the leader of the Town Vikalangula Samkhya, (TVS) I guide NGOs/others when they visit our slum.

Q: What is your individual and family income?

A: Every month, I earn Rs. 250 from book-keeping for SHGs and Rs. 1000 from home tuitions. In total, my monthly income is Rs 1250. The income of my whole family is Rs. 6000-7000.

I manage the finances at home. Although we do not earn a lot of money, we still manage to save for future emergency needs by cutting down on unnecessary expenditure.

Q: Do you have any assets in your native place?

A: Yes, the only asset which we still possess is our old house. We no longer have any land since we had to sell it for the repayment of loans. We regret selling them because those lands are worth a lot more money now; we could have relied on them for a better life today.

Q: Do you receive the disabled persons' pension?

A: Yes, I have been receiving Rs. 500 from the government for the last three years. I cherish it even though it's a relatively small amount, often utilizing for personal needs and my saree business.

Q: When did you selected as Present of TVS?

A: I was elected as the TVS President by the members in 2010. Initially, I was unaware and hesitant about leading the TVS. Over time, the members and other officers supported me. Now, I'm a very capable leader and am proud of myself.

Q: What are your responsibilities as a TVS leader?

A: My primary and most challenging task is to take decisions on the activities of the TVS. I do this in consultation with the Operation Body members. We conduct monthly meetings and jot down minutes of the meeting. We hold awareness programs on disabled peoples' rights and group leaders' roles in motivating their groups.

Q: Did you receive any training?

A: Yes, I received training about disabled peoples' rights. I gained a great insight on how to protect our rights and manage our daily activities like non-disabled persons. I also understood the definition of 'rights', problems that we may encounter, and the Operation Body members' roles and responsibilities.

When we conduct our monthly TVS meetings, our officers explain the current events, our actions, correlation between cause & effect, and our rights. Our TVS members also share their field and personal experiences with us.

We learned that the government is responsible for creating reservation quotas in government education institutes and jobs for us, others should treat us with respect, and our physical disability can never be the cause of public humiliation.

Q: Do you face any problems due to your disability?

A: Yes, I have face problems while writing, walking, and while attempting other regular activities. My family and friends help me in as many ways as possible.

Q: What is your future goal?

A: I want to expand the scope of my education and knowledge. I do not want to depend on others; I will strive to become an independent and capable individual. ❖

Green and Renewable Energy

It is a well established fact that nonrenewable energy sources are depleting at a fast rate and may not be sufficient to fulfill the need and demand for energy soon. But if we continue to use all the available sources at the same pace, the world will be under a severe heat wave. However, the rise in temperature will not only create calamities like floods but also create unbearable living condition on the earth.

The rising population of the world and their energy needs are growing side by side, and in recent times the technological innovation is acting as a catalyst in fueling the demand for energy at a much faster pace.

India, which constitutes 17 per cent of the world population and just 0.8 per cent of the world's known oil and natural gas resources is going to face serious energy challenges in the coming decades. According to our former president and eminent scientist DR. APJ Abdul Kalam "By 2030 the country would have a population of 1.4 billion and the energy requirement would increase from 1,99,000 MW to 4,00,000 MW", he said inaugurating the Centre for Innovation in Energy Research at the Central Electro Chemical Research Institute (CECRI).

The increasing energy for India's growth is an accepted fact and the rural and urban needs can only be addressed with the effective utilization and development of our renewable and green energy sources. India has huge potential for producing electricity from renewable sources. India has achieved an installed renewable power capacity of 24,914 mega Watts (MW) as on March 2012, against its potential renewable power generating capacity of 10,76,160 MW – about 2.3 per cent of the potential generation capacity. This figure is supposed to reach 20 per cent of the potential renewable power generating capacity by 2020.

India is facing with three important challenges: availability, accessibility and sustainability of energy sources. The facts and figure suggest India's energy architecture is straining under the weight of the 95% increase in energy demand over the past two decades. Despite 50GW of total power-generating capacity added over the past five years, peak demand deficits are expected to remain worryingly high during 2012, ranging from 5.9% in the north-eastern region to 14.5% in the southern region. In some states, these deficits run at over 40%. Put simply, India lacks the capacity to deliver sufficient supply.

With the biggest rural population in the world, India faces a huge challenge in terms of accessibility. A quarter of the population (289 million) does not currently have access to electricity, while 72% (836 million) relies on traditional biomass for cooking which produces a vast amount of smoke and air pollutants.

As we are using automatic devices, machinates and tools are also under the influence of similar trends for their life and livelihoods needs.

Introduction of communication systems like telephones, mobile phones, computers with Internet facilities, agricultural tools and technology like dryers, crushers, threshers, tractors etc. Street lighting facilities and other devices such as television, radios etc which runs on power in rural areas and are very important for production, value addition, market and development related knowledge and information becoming integrated part of people life and livelihoods.

Technology is highly important for cost effectiveness, efficient production, on time distribution and storage and conservation. Technology helps in creating value (Place, Time and Form). But the fact is technology runs on energy. But, supply and distribution of energy is a major problem in the country due to infrastructure and lack of resources. In reference to the information discussed, if the demand for power supply reaches 4 lakh MW by 2032, then this should be of grave concern due to inability of the country to project such level of supply as of now. Even if we reach 20% of the potential renewable capacity by 2020 and 30% by 2032 it will be around 3 lakh MW. Still there will be deficit of 1 lakh MW power supply. As the country depends on import for crude it

will be burden on the country. Crude import at rising prices will further increase external debt burden on the country. On the other hand as cities utilization and accessibility of the resources are very high, the power supply deficit will affect villages and rural places more than any one, considering the present situation.

Therefore the need of the time is to develop and explore all kind of renewable sources of energy, like solar, biomass, wind power, hydroelectricity etc and tap them effectively and efficiently to address the energy need in the near future. Seasonal small water streams, significant number of sunny days, agricultural waste etc which are available across the country from difficult to difficult places can help in generating the required energy need for the villages. As distribution to nearby areas or villages without any transmission loss is also possible, potential villages can sell and supply the access power to the neighboring areas. For example, in one small tribal village in Kandhamal district, where a micro hydro electric project is providing twenty four hours of electric supply to the village and to an extent to nearby villages. Therefore looking at the future need, inclusive growth and environment point of view, the use of renewable energy sources and their development must be taken as planned manner. This will happen with the investment in the infrastructure.

Recently our finance minister Mr. Pranab Mukherjee said "India needs $ 1 trillion in 5 yrs for infrastructure development". This is to make large investments in social sectors like education, health, rural connectivity, which are necessary for inclusive growth. We wish a chunk of it would go into developing renewable energy sources across the country. This will help our farmers and people in rural areas to excess and use technology to strengthen their livelihoods and improve their standard of living. ❖

Livelihoods Enhancement Action Plan (LEAP)

Livelihoods are an intimate reality of people. The portfolio of livelihoods depends on the perception of the household of their risks, capacity to withstand risks, and the availabilities of opportunities and capitals. Being a perception, this is highly personal and each household has a different reality with respect to the 14 elements (4 Arrows: Income, Expenditure, Employment and Risk, 6 Capitals: Natural, Physical, Social, Human, Financial and Spiritual Capitals, 4 Contexts: Ecological and Environmental, Techno-Economic, Distribution Pattern and Investment and Expenditure Pattern) livelihoods framework. Since assessing each household would be very difficult, we assess the generalities related to these 14 elements at the community level and apply this understanding to the households. We study a few sample households to confirm our analysis. As livelihoods also depend on the broader trends sweeping across the community or nation, a macro-analysis is equally critical.

Assessment of the current situation with respect to livelihoods is the first step in planning a livelihoods intervention. The intervention can either be at the micro-level- where the community prepares its livelihoods enhancement action plans, or at the macro-level- where an intervening agency, in consultation with community, develops a plan/project/ program. In addition, the assessment can also be taken up:

(a) To obtain the livelihoods context of a community before undertaking specific research related to household reactions to various variables and their livelihoods strategy.

(b) To come up with a broader understanding of the situation in order to help the Governments develop a policy or to help the INGOs develop an intervention strategy.

Thus, livelihoods assessment can support diverse purposes, which include design of intervention (at community or area level), program, proposal, policy, or strategy.

The household, *capitals* it uses to practice the livelihoods and the livelihoods outcomes (income, expenditure, employment and risks) exist in a context. Hence, the livelihoods assessment should cover both household lev(micro) interactions and the context level (macro) factors impacting the livelihoods scenario.

Principles: To serve its purpose, the assessment should be structured and based on certain principles. As pointed out in the earlier units, livelihoods of the poor are risky and comprise of a multidimensional reality. The discipline coming out of adhering to the following principles reduces the (sectoral) biases of the persons engaged in the assessment:

• The assessment should always try to combine the knowledge of the community members, intervening agencies, and outsiders; and ploughing it back to the community and/or its leaders so that the community owns this combined knowledge. The exercise should, therefore, involve the community and its leaders in reflecting on their situation and the results of assessment.

• The assessment should identify gaps and opportunities in the existing situation towards the formation of livelihoods enhancement action plans/interventions. The facilitator should guide the community to dig deeper into the existing situation and come up with the gaps and opportunities that need to be filled/ tapped.

• All known and knowable parameters of the 14 elements should be assessed. Ignoring any of the elements will lead to a partial understanding. Intervention plans based on such partial understanding could increase the risk of the livelihoods of the poor.

• As any livelihoods situation is bound to be dynamic, the assessment needs to be flexible enough to be able to take care of this dynamic nature, and to go layer after layer.

• The focus of assessment should be on broader trends & proportions rather than being exact. Exactness may vary from week to week, month to month and between families. Hence, focussing on exactness can lead to loss of time, sometimes without reaching there, and blurring the broader picture.

• There are several livelihoods in a village/area, and these livelihoods interact among themselves in a unique manner, and any assessment is incomplete without capturing this interaction. Similarly, even households have multiple livelihoods and these need to be understood. Unless, these interactions are understood, there is a possibility that the intervention disturbs the supportive livelihoods.

• While the capitals are mostly present within the village/area, some contextual factors may be present outside the village/ area and may prevent or facilitate access to certain capitals. This needs to be appreciated.

• The markets where the villagers/residents conduct trade should be chosen for study – not necessarily the markets that are nearby.

• An understanding of the chains of actors existing outside the village and engaged in 3-4 major livelihoods present in the village is required to assess the manner in which the village interacts with the outside world.

• While feasibility frontier (opportunities) can be determined keeping in mind the technical advances and/or best practices, the constraints and threats must be assessed from the perspective of the people. The wishes and tendencies of the community must also be factored in.

• The assessment should reflect the reality as it exists. The facilitators should not impose their morality onto the livelihoods.

• The facilitators should know: Recency effect (People may not state the income, expense or problems faced during last year and this may not lead to good reflection).

Social acceptance (People may say only socially acceptable and politically correct things in a public space. For example, people may not say that they pay bribes).

• As a principle, livelihoods scenario of the entire community needs to be assessed and should not be limited to only the livelihoods of the poorer communities. This is despite the fact that the interventions might focus only on the livelihoods of the poor. In other words, pro-poor bias can come only during the design and execution of the project and not at the time of assessment. This is not to deny that while selecting the livelihoods for study using value-chain analysis, a higher priority is given to those livelihoods in which the poor are engaged in. Similarly, an attempt is made to ensure that poor households are adequately represented in income and expenditure analysis.

• Assessment of livelihoods and formulation of **LEAP** cannot be separated temporally. In other words, some plans emerge in the initial steps of assessment and these plans get fine-tuned or added-on during the later processes of assessment. This also means that the community need not wait for intervention till the entire process of assessment is completed. This is particularly so in the case of community-based livelihoods enhancement action plans. ❖

Livelihoods in Afghanistan

Social relationships are central to the ability of Afghan households to reduce vulnerability and gain a degree of livelihood security. Where there is a robust rural economy, relationships of relative equality provide a high level of security, mutual support and the opportunity to prosper. Where relationships are based on deep inequalities or where the rural economy is in poor health, there may be few benefits beyond precarious survival.

Drawing on a study of 11 villages in Afghanistan, this paper argues that there are significant differences between villages, both in the quality of relationships that can be established and the behaviour of these villages in relation to the provision of public goods. What underlies these differences is the behaviour of village elites and the level of their interest in supporting the common good. Where land inequalities are high and elites are economically secure, they have few incentives to widen the provision of public goods and are largely immune from social sanctions. Where elites are economically less secure, they are likely to have a shared interest in supporting social solidarity and promoting the provision of public goods. Such differences between villages can be analysed, and this paper proposes a way to do this systematically.

The paper argues that these fundamental characteristics of Afghanistan's rural society – the centrality of social relationships and their variability by village – are not being captured in policy and programming responses. It suggests two major reasons why this might be so. First, policy and programming in Afghanistan have specifically sought to displace existing village customary structures, and therefore have little interest in understanding and responding to variability in village contexts. Second, there is an inherent bias in policy towards individuals' own capacities, to the neglect of the structures of inequality that make and keep people poor. Accordingly, there is limited understanding of the ways in which 'modernising' organisational practices have engaged with customary institutions. But interventions have often operated subject to existing practices, rather than displacing them as has been assumed. In some cases this has worked to the good, supporting an existing moral economy within the village and expanding the provision of public goods. In others it has reinforced elite positions and led to external resources being captured by the elite. Policy and programming needs to pay greater attention to the variability between villages and the implications of this variability for intervention design and impact assessment.

This analysis began by examining the livelihoods of 64 households from 11 villages. It drew attention to the significant role of social relations in helping households increase the

security and certainty in their lives given the failure of both the state and the market to provide either. It has argued that households can draw on a wide range of social relations, some more advantageous and equal than others and all with differing benefits and risks. All this points to the importance of informal relationships and social networks in obtaining what security can be achieved and reducing vulnerabilities. But the evidence has also pointed to significant differences between villages, both in the quality of the relationships that can be established and in the behaviour of these villages in relation to the provision of public goods.

The most fundamental public good that a village can provide is security. This can be done through military means, as Toghloq did in the past and the Faryab villages are struggling to do now. But it can also be done through building strong external connections with more powerful or influential people. This cannot be done in Faryab because power is contested within the province, but it has been possible in Kandahar and in the Badakhshan villages – notably Shur Gul, which managed external security extremely effectively during the mujahiddin period and after (Pain, 2010b: 16–19). In the case of Khilar or Kushlak, which are not strong enough to defend themselves, security can be obtained by assuming 'protectorate status'.

There are of course limits to what a village can do to defend itself against the outside world. Even Toghloq, which was successful in keeping the government out during the Soviet period (and whose members attacked and destroyed the vehicles of an opium eradication team in 2006, an act that would have been unthinkable in the other Badakhshan villages), has suffered considerable destruction. In many cases insecurity is so great that people are compelled to migrate, as happened in all of the Faryab villages and in Pishin and Sarband.

External security does not mean internal security – Kandahar, Chakar and Toghloq all provided evidence of

a lack of security within villages, with powerful people abusing their position (see Pain, 2011). Households see physical strength in the institution of the joint household – as one informant from Toghloq put it (Pain, 2011: 22): 'A big family can also protect themselves against problems and conflicts emerging in the village. No one can fight with a family because a big family can properly defend itself'. Beyond security a village can also provide other public goods, including welfare and dispute resolution, as well as investment in education and health, as found in Shur Gul, Pishin and Chakar, both through village efforts and by building connections to external sources of provision, primarily NGOs.

The case study villages also show the key role of external relationships with more powerful figures at district and provincial level. Villages are not autonomous but should be seen as part of a wider web of relationships and connections. Some are better at building these links through elite connections, and are helped where there is a degree of political consensus in the region. Building these connections is more difficult where there is no political settlement, as in Faryab, or where villages (and provinces) are marginal, as in the case of Sar-i-Pul.

The case has been made that villages have distinctive social orders that underlie the way they behave. There is no wider systematic study of Afghan villages exploring the extent of this, though there is a wide range of observational evidence (see Pain and Kantor, 2010a: 32–33) to support the view that this variability is not unique to the study villages. Many field workers talk of how different villages are easier or harder to work with. There is also evidence of the capacities of the village to provide dispute resolution and public goods through customary structures (Smith, 2009; Brick, 2008). What is the connection between elite behaviour, the degree of public goods provision available in a village and the quality of social relationships that can be drawn on to provide security?

The resource endowments of the village, the ownership of these endowments and village customary institutions and their performance should be seen as interrelated dimensions of the village rather than separate aspects of it. Conditions in Shur Gul, with its limited irrigated area, small land inequalities, grain deficit and relatively flat social hierarchy, all suggest that efforts to secure public goods are likely to be maximal, and the quality of social relationships on which people can draw highest, even if the level of provision is limited by the overall poverty of the village. In contrast the Kandahar villages, with their rich resources and major land and social inequalities, have the least provision of public goods and the poorest social relationships.

Drawing on Brick (2008), what appears to matter is the way in which village customary structures work. Three key customary structures found in most Afghan villages – the village council (shura), the village leaders (maliks or arbobs) and the village clergy (mullahs) – can give rise to conditions that are supportive of public goods provision. Four key features drive this. First, each of these customary structures has distinct and non-overlapping areas of authority, and each derives its authority and legitimacy from different sources. The village council manages dispute resolution; the village headman is the key interlocutor between the village and the government, representing the village; and the clergy, whose authority is derived from religion, speak on matters determined by Sharia law. The evidence from the case study households and villages is consistent with this. What the evidence also confirms is the second key feature – the capacity of these customary structures to independently raise revenue from within the village. The school in Shur Gul, for instance, was paid for by a levy instigated by the shura. There were several examples of payments being made to mullahs.

Third, there are checks and balances that can prevent abuse of these customary structures. Even in Kandahar the clergy were able to impose constraints on the behaviour of the elite (Pain, 2010a: 96) in relation to matters determined by Sharia law. T

he ways in which these checks and balances work can be variable, constraining abuses of authority in Badakhshan but not in Kandahar. The reason for this relates to the fourth factor – the need for sufficient actors with the ability to stop potential abuse of power and act as veto players. Where land distribution is relatively equal there are many landowners and power is dispersed. Where land ownership is concentrated so is power. Under such conditions there are few constraints on elite behaviour and elites are more likely to act in their own interests. ❖

Society for Energy, Environment and Development

Society for Energy, Environment and Development (SEED), an NGO was established in 1987. It was established by a group of professionals from various domains like engineering, management, solar energy, law and social work. The society is headed by Chairman Mr. P. Rama Rao (Padma Vibhushan), President Prof. PN Murthy and he is also one of the founder members of SEED. He nurtured many programmes and activities in Food Processing and Solar Drying Technologies at SEED and the founder general secretary Prof M. Ramakrishna Rao, Prof. M. Ramakrishna Rao is a renowned Solar Energy Technologist in the country and has been working in this area for the last 25 years.

The purpose of setting up SEED was to draw upon the expertise of these fields to create awareness about the Environment and Energy issues and creating devices to enhance the quality of life. The motivation was to replace use of fossil fuel based energy resources in food processing. As 2% of the horticulture produce are able to get processed in the country, there was a need to bring cost effective technology in food processing industry focusing on rural areas. Apart from this, SEED promotes community development activities through various programmes like employment generation; self help Groups, health and education. Towards employment generation SEED facilitate communities in establishing micro enterprises in food processing in rural areas.

SEED's core area of work is technological innovation to develop devices and machines which can reduce the cost of energy drastically and can run on renewable energy sources like solar energy. They are also focusing on post harvesting conservation of food and food products.

The organization had developed solar drier. SEED invented Solar Powered Solar Air Dryer designed by Prof M. Ramakrishna Rao, the Solar Air Dryer invention is patented by Indian Patents Office with a patent number 211911.

Food Processing Technology is one of the priority sectors in our country. SEED introduced this solar energy based technology at micro level in the villages. This would be a boon to rural women and youth by creating great opportunity for rural employment. The solar dryer technology will process the food products with zero energy cost. In the past few years' intensive Research work has been carried out by SEED in drying more than 60 products of vegetables, forest produce like gumkaraya (edible gum), spices, and herbs using solar dryers on a commercial scale.

SEED is involved in research, development and training. It provides training in installation, use and maintenance of solar dryer across the country whereas the research emphasis on developing compatible cost effective technology to support the food processing industry. So far, the organization has trained 1000 trainers across the country. The training covers, hygiene and cleanliness, pretreatments of raw materials, chemical preservation method, processing, testing and packing for processed products.

In house training is also conducted for the wider and special variety of products processing for NGO's working in rural areas and for rural youth and women. SEED thrives for high Quality products in solar food processing products.

They have a Laboratory with well equipped, well qualified staff conducting quality control methods and maintain nutritional values. The laboratory is capable of analyzing and testing for Physico-chemical properties, Shelf life, Microbiological qualities, absence of harmful micro-organisms and other undesirable substances, texture, taste, look and appearance and other sensory parameters and Nutritional values.

With their work they have reached more than 40 organizations across the country who is working on large scale in the rural areas. So far they have sold more than 140 dryers which cost Rs.100000 each. Seed has covered 150 villages in 13 states in India. They have tested their driers successfully in those villages. The uses of those driers have increased the income of the enterprises where they were installed. Livelihoods of the producer on the other hand were better with better income

They have applied their technology on various ranges of products. These products are processed solely on Green Energy utilization first time in National and International Markets. The Commercial application of the solar dryers is processing of Mango and other mixed fruit bars, Amla Powder and Ragi Malt under scientific methods and assuring quality of the products. They are rated as high quality products with excellent properties of tastes, color, texture and flavor. 'SEED' brand fruit bars and other products have become very popular and attracted the market through reputed food stores in many places in India test market in USA, Middle East and African markets. All fruit bars come in slabs, toffees, bars and rolls with good taste.

Currently the organization has 15 engineers working as fulltime employee in design and development of solar devices used for post harvesting usage to add value to food and food products. SEEDS got a grant of Rs.57 lakh from Bharat Dynamics for development of food processing technologies. They have identified Todukutta in Moinabad to implement their technology for successful development of the technology. ❖

More Work means More Wages

Kalayan Srinivas is 27 and shares his experience of working as a Field Assistant in MGNREGS in Komarada mandal in Vizainagaram district, Andhra Pradesh with "Livelihoods".

Q: What is your education qualification?

A: I was pursuing graduation at Parwathipuram in Vizainagaram district during 2002-2005. I could not complete graduation because I did not take the exams seriously. I was distracted as I had to support my parents in their work.

Q: How many members there in your family?

A: Ours family is a joint family. My Parents, sister, wife, Daughter and I live together.

Q: Do you have any agriculture land?

A: We have no agriculture land. We have no assets except a house.

Q: What do the others in your family do?

A: My parents are working as wage labourers, my sister is studying and my wife is a house-wife.

Q: When did u join MGNREGS as a Field Assistant?

A: I have been working as a field assistant since 2006.

Q: Where were you working earlier?

A: I worked in a private company at Visakapttanam for 6 months. I did not like it and quit the job.

Q: How did you know about the post?

A: I found out when the Village Gram Panchayat members conducted a meeting regarding selection of a Field Assistant. Earlier, the field assistant was elected by the farmers.

Q: What are your roles and responsibilities?

A: I give work measurements to Srama Shakti Sanghams, make the mates aware about their roles. The mates and I tell the farmers to submit their requirement of works in the Gram Panchayat office. We conduct a Gram Sabha meeting to notify which farmers have been allotted work.

Q: What is your monthly income as a Field Assistant?

A: I earn Rs. 3500/month as a Field Assistant. This not big salary but I satisfy this work because I also belongs this village so more responsible to me.

Q: Which works are implemented in your village under NREGS?

A: We did bonding works in 21 acres of agriculture lands, Irrigation and Irrigation tank under Land development program. Silt works in irrigation canals and irrigation tanks.

Q: How many Shrama Shakthi Sangams are there?

A: 47 SSS are there in the village with 650 labourers. Each group has 10 labourers including the Mate. Mates manage their SSS groups. Both men and women form the groups. The members have to be above 18 and possess a NREGS job card.

Q: Who monitors your work?

A: The Technical Assistant, Additional Program Officer and MPDO monitor my work. They enquire about labourers' problems and facilities. They also check the muster rolls.

APO conducts a monthly meeting at the mandal level meeting for the Field Assistants the in MPDO office. I submit weekly reports to APO. Sometimes the MPDO attends the review meetings. I get my doubts clarified doubts in the meeting.

Q: What kind of problems do labourers face in the village?

A: They don't face any problems as such as they work in their neighbors' fields. Mates and I are available the whole day for labourers. They want more wages. But I feel they have to do enough work to get more wages. Sometimes they meet with accidents in the field and we provide first aid.

Q: Do you face any problems in this job?

A: Yes, sometimes labourers do not understand project rules and regulations. They only want more wages but are not punctual and regular to work. Sometimes same group members (who work more) get different wages and they cannot understand that.

Q: What is your future goal?

A: I will complete my graduation because I want a higher position in the government. I will support my parents and let them rest. I will lead and make my village aware about NREGS and its benefits. ❖

Land Acquisition Bill, 2011.

The first Land Acquisition Act was enacted by the British in 1824 in Bengal. The Act empowered the government to acquire immovable property at a reasonable price for public purposes like construction of roads, canals etc. In 1850, it was extended as ACT I of 1850 to make land acquisition for the then burgeoning railway project less cumbersome.

Land, and its acquisition continued to remain a controversial subject post-Independence. It was important in realizing the country's dream of economic prosperity led by industrial development. However, the Government's race to build more infrastructure (roads/dams/power units, etc.) vital to economic development came at the price of infringing on the rights, livelihoods and lifestyle of many a forest-dwelling tribe in the country.

It is estimated that during 1951-1990, nearly 21.6 million (mostly tribal, rural) people were displaced in the country. Rehabilitation efforts for the displaced persons/communities were half-hearted and almost always inadequate. Civil society organisations and communities have protested (sometimes violently) "development projects" that threaten to snatch their resources. Growing discontent in this regard and a lack of proper legislation has prompted the Government to introduce the Land Acquisition Bill, 2011.

The Bill hopes to mitigate the adverse impact on habitats and the natural resource base of communities affected by infrastructure/industrial projects. The rationale for the Bill is to "balance the need for facilitating land acquisition for industrialization, development of essential infrastructure facilities and urbanisation, while at the same time to meaningfully address the concerns of farmers and those whose livelihoods are dependent on the land being acquired". It advocates humane, participatory, informed, consultative and transparent process of land acquisition and the realization of a stage in which the affected persons become partners in development.

Salient features of the Bill include-

* provide for the resettlement, rehabilitation and compensation towards loss of livelihoods

* Considering Resettlement & Rehabilitation and Land acquisition laws together rather than treating them as mutually exclusive entities

* Public purpose once stated cannot be changed in the case of private companies

* Urgency clause initiated only for strategic purposes and cases of natural calamity and in 'rarest of rare' instances

* A wide range of resettlement and rehabilitation benefits and monetary compensation for the land lost,

* 25 infrastructural amenities should be provided in the resettlement area including schools and playgrounds, health centres, roads, power supply and drainage, irrigation and transportation facilities, sanitation facilities, assured sources of safe drinking water for each family and cattle, Anganwady, places of worship and burial and/or cremation ground, Fair price shops and seed-cum-fertilizer storage facilities, grazing land, One community centre for every 100 families etc.

* Compliance with laws like The Panchayats (Extension to the Scheduled Areas) Act, 1996, The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, Land Transfer Regulations in Schedule V Areas which ensure that the local Panchayat and the tribal population have their say in matters regarding land acquisition.

* Return of land to original owner if not used in 5 years for the purpose for which it is acquired with one-fourth of the award amount for the land acquired

* Collector of the district, where the acquisition of land is proposed, should explore the possibilities of utilising waste, degraded, barren lands and that the agricultural land, especially land under assured irrigation is being acquired only as a last resort,

* No notification shall be issued unless the concerned Gram Sabha at the village level and equivalent forum in Urban Local Bodies, as the case may be, or Autonomous Councils in the Sixth Schedule Areas have been consulted in all cases of land acquisition etc.

The Bill has made an attempt to reduce adversities of the displacement and at same time has tried to satisfy the requirements of industrial growth.

The question of who will take up the acquisition process-the government or private firms is critical. Though the Bill calls for participatory and an informed process of acquisition, rampant corruption and nexus between government department and vested interests threaten to deafest the purpose of the Bill. Consultation with the community and owner before acquiring their property will only be possible if they have efficient system to address their grievances without any fear and threats. The Bill proposes compensation pegged on historical mark-ups. Compensation must be calculated on the future loss too.
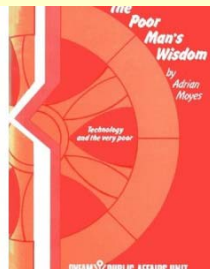
Though well intentioned, the implementation of the Bill and its effectiveness in curbing the socio-economic distress of displacement remains to be seen. ❖

Books

Name of the Book: The Poor Man's Wisdom

Author: Adrian Moyes

Publisher: Oxfam

In the "Poor Man's Wisdom", the author makes a case for combating the technological divide. He advocates the assimilation of local technologies with modern "Euro-American"technologies to bridge the divide. The book serves well to dispel myths about indigenous technologies. He presents cases of various local technologies in many third world countries. The technologies studied include carpentry tools production and grain storages in Tanzania, fish farming in Zaire, bamboo tube wells and aluminium plates in India, contour-bunding in Haiti, pedal grain –grinder in Sudan and cement block making in Brazil. These technologies were designed by the local people according to their requirements and local conditions and resources availability.

The author explores the biases against these technologies and the ehtnographic nature of "modern" technology. He also probes how modern technologies have put many traditional occupations to an end and deprived many of their livelihoods. Besides, he also speaks about the all-pervasive nature of these technologies and their tendency to kill local initiatives. He draws the key differences between indigenous and modern technologies. The former is based on local information and knowledge and is usually invented to meet local needs. It is usually experimental in nature and is open to including new elements. It is not always old, traditional and static.

There is a problem in transforming foreign technologies to a new setting. Such transformation is seldom smooth and calls for larger, insitutional changes. Further, the time taken for these technologies to be accepted is often long. Moreover, these technologies face social and political hurdles in being implemented for the poor. Research and development in technologies to benefit the poor is sparse and often not supported.
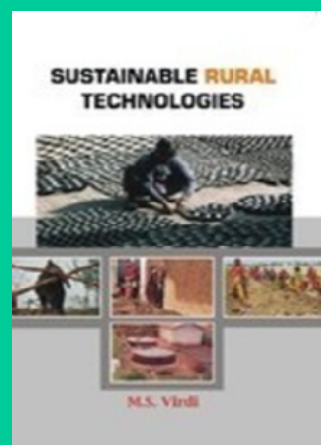
Finally, the author calls for a reconciliation between the two technologies to herald a technological inclusive era. Building local technologies and adapting external ones is the way forward. ❖

New Book

Name of the Book: Sustainable Rural Technology

Author: M.S. Virdi

Publisher: Daya Publishing House

Resources

Swamy Ramananda Tirtha Rural Institute (SRTRI): The philosophy of the Institute rests upon holistic approach wherein the rural people are provided with unhindered access to skills in latest sustainable technologies using improved tools and equipment for enhanced productivity and quality dimensions.
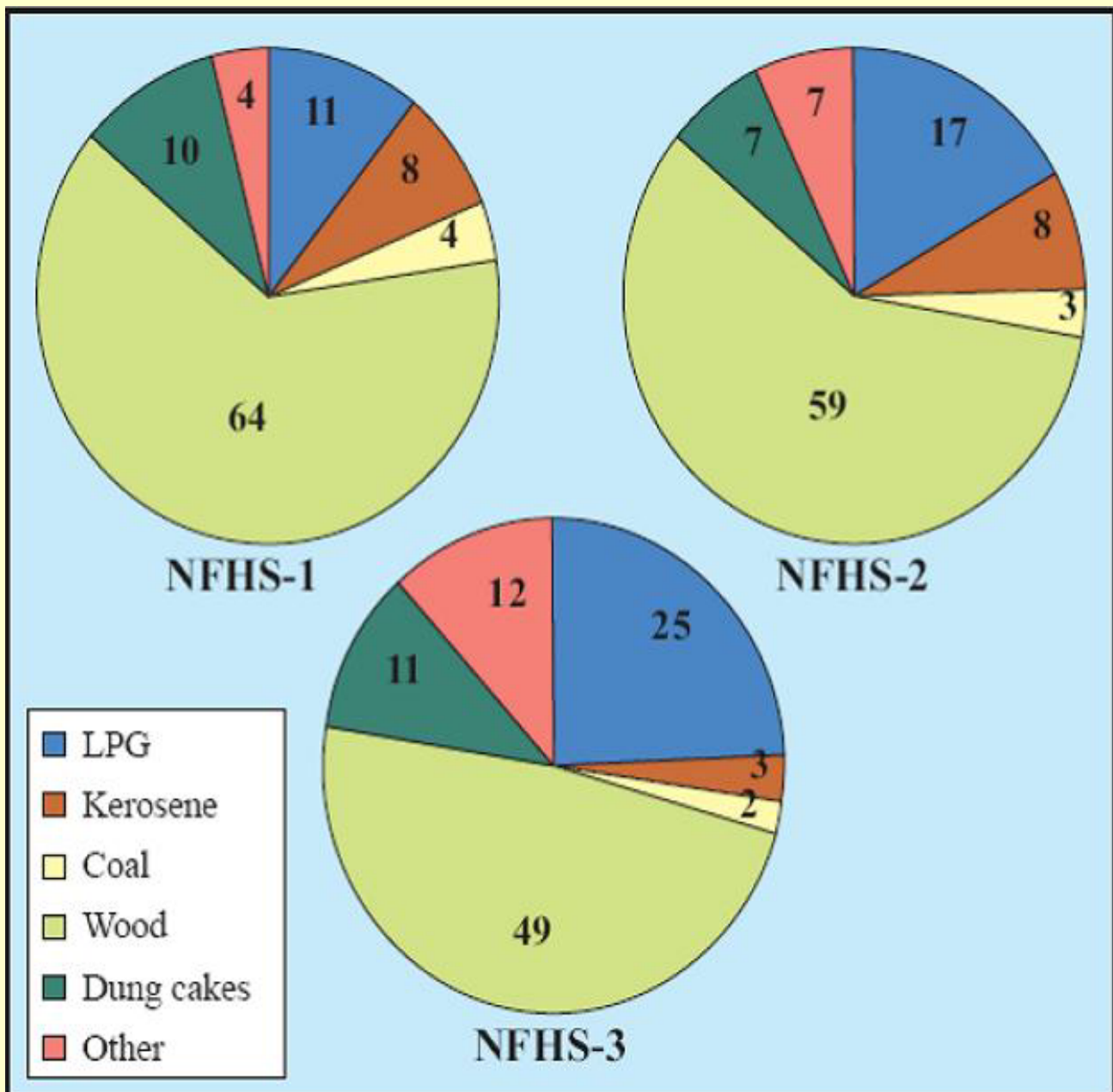
http://www.srtri.com/

Integrated Rural Technology Centre (IRTC): It is a research, development and training centre set up by Kerala Sastra Sahitya Parishad (KSSP) which is the premier people's science movement in the country. It was about this time that the Department of Science & Technology (DST), Government of India, came forward to provide Core Support Grant to set up such a Centre under the STARD Programme of their Science and Society Division.

http://irtc.org.in/

Council for Advancement of People's Action and Rural Technology (CAPART): The Vision of CAPART is to play a dynamic and catalytic role with the various governmental agencies and NGOs, influence public policy and contribute its share towards the many-sided development of Rural India. The thrust of Rural Technology is to promote innovative rural technologies in the village especially catering to disadvantaged sections of the society. CAPART supports projects under the Advancement of Rural Technologies (ARTS) scheme, Such technologies are catering to disadvantaged as are newly designed and lab tested to be viable, but are neither being promoted /funded by any other agency.

http://capart.nic.in/scheme/rural.html

Household Fuel Usage Proportion

NFHS-1

NFHS-2

NFHS-3

Legend:
- LPG
- Kerosene
- Coal
- Wood
- Dung cakes
- Other

(.National Family Health Survey (NFHS), NFHS-1 (1992-93), NFHS-2 (1998-99), NFHS-3 (2005-06))

* Fire wood consuming for cooking has been gradually decreasing for the last 13 years (1993 to 2006) and at the same time LPG consumption has been gradually increasing

* More than 60% of the households are using traditional fuel stock like wood, cow dung and crop remains

* Household sector is the second largest energy consumer after industrial sector

* Traditional fuels release high quantity of CO_2 in the air and it is very harm to women in the time of cooking

* Traditional fuel consumption is very high in rural areas (91%) comparing with urban areas(71%). ❖

A Well-Used Opportunity

K. Ananda Rao is 35 years old and lives in Saidapur village, Bela mandal, Adilabad district of Andhra Pradesh. He is a primitive tribe. He lives with his wife, two daughters and one son. All his children are studying in Government school.

He doesn't have agriculture land and works as agriculture labor. He faced uncertainty in the availability of work and very less number of working days in the

> Name: Ananda Rao
>
> Village: Saidapur
>
> Mandal: Bela
>
> Dist: Adilabad

village is main cause for the poor condition of his living. He had a hand to mouth existence. He has no other skills to help him find new jobs and increase his income.

Things have changed now. After MGNREGS has come to their village, both he and his wife have started working under the scheme. Both put together, they are able to earn Rs.3000 per month. It has provided them sufficient income to keep starvation at bay. They go to work regularly and are work hard. They are trying to make most of the scheme.

Earlier he was unable to send his son to the school but now he is sending even his daughters to the Government school in the village. He says that though it is a Government school there is minimum expenditure to it as well which they were unable to bare earlier. With substantial income from MGNREGS they are able to manage it now; they are also not hard pressed to borrow money from money lenders to buy food. Ananda Rao"s family is happy that they have some relief from poverty. Their next plan is to buy some land and start cultivation. They feel that if the number of work days under MGNREGS is increased from the present 100 days they will surely benefit from it. ❖

Weaving Trouble

Upender lives with his wife and children in Siripuram Village, Ramannapet Mandal, Nalgonda District. He is 47 years old and studied up to 10th standard. He used to be a Master Weaver in the village who employed 15 daily wage weavers.

Upender made and sold sell silk saris in Pochampally market. At that time he used to send his children to a private school. His business was well during that time. For the last four years, ever since the handloom industry has taken a down turn, he has faced abnormal losses in his business. He says people prefer power loom products now.

> Name: Upendar
>
> Village: Siripuram
>
> Mandal: Ramannapet
>
> Dist: Nalgonda

A few of his employees had borrowed loans worth Rs. 1lakh from him and not everybody had repaid the loan. Some even left the business. In the face of these troubles, Upender thought it was too risky to continue the business and shut it down. As a result, he had lost approximately Rs. 2 lakhs.

This experience did not deter him from trying another business. He discussed with his wife and set up a clothes shop in the village. He invested whatever little savings he had on this business. The business showed promise for a year until Upender let his customers buy clothes on a "credit" basis. In other words, he allowed his customers to take clothes and pay for them later. The customers failed to repay on time despite his constant requests and reminders. To keep his business going, Upender turned to borrow from money lenders.

At the same time, some family problems had cropped and worsened his financial position. He lost about Rs. 1 lakh due to these problems, debts and his ill-advised business practices. With no options left, he shut down the shop and returned to weaving. He earns a small income from the business, a fraction of what he used to four years ago. His family is barely sustaining with this income and his son's income.

Two failures has shaken his confidence to venture into business again. ❖

Milk Point

Snake Charmer

Shining Livelihoods

Declining Livelihoods

A Gift of Love

Can I see my baby?" the happy new mother asked.

When the bundle was nestled in her arms and she moved the fold of cloth to look upon his tiny face, she gasped. The doctor turned quickly and looked out the tall hospital window. The baby had been born without ears.

Time proved that the baby's hearing was perfect. It was only his appearance that was marred. When he rushed home from school one day and flung himself into his mother's arms, she sighed, knowing that his life was to be a succession of heartbreaks. He blurted out the tragedy. "A boy, a big boy … called me a freak."

He grew up, handsome for his misfortune. A favorite with his fellow students, he might have been class president, but for that. He developed a gift, a talent for literature and music. "But you might mingle with other young people," his mother reproved him, but felt a kindness in her heart. The boy's father had a session with the family physician. Could nothing be done? "I believe I could graft on a pair of outer ears, if they could be procured," the doctor decided.

Whereupon the search began for a person who would make such a sacrifice for a young man. Two years went by. Then, "You are going to the hospital, Son. Mother and I have someone who will donate the ears you need. But it's a secret," said the father. The operation was a brilliant success, and a new person emerged. His talents blossomed into genius, and school and college became a series of triumphs.

Later he married and entered the diplomatic service. "But I must know!" He urged his father, "Who gave so much for me? I could never do enough for him." "I do not believe you could," said the father, "but the agreement was that you are not to know not yet." The years kept their profound secret, but the day did come … one of the darkest days that a son must endure. He stood with his father over his mother's casket. Slowly, tenderly, the father stretched forth a hand and raised the thick, reddish-brown hair to reveal that the mother had no outer ears. "Mother said she was glad she never let her hair be cut," he whispered gently, "and nobody ever thought Mother less beautiful, did they?"

Real beauty lies not in the physical appearance, but in the heart. Real treasure lies not in what that can be seen, but what that cannot be seen. Real love lies not in what is done and known, but in what that is done but not known. ❖

'Yoga'kshemam

Happy Mothers' Day! Happy Budhdha Purnima! Let us celebrate Budhdha!

Let us celebrate 100 years of Gurudev Rabindranath! Whatever you want to say, he has already said. Let us read and reflect Gitanjali again and again.

Anand continues his reign on world chess. Fifth time around!

6L – life, livelihoods, leadership, linkages, learning and love - of/for/by the poor, individually, collectively and institutionally at various levels, of various hues and in various domains remain the key foci of our work.

Notebook of Process, Jeevan Vidya, Celebrating Life with Wisdom, Flowing with Universe … are taking us forward.

Leslie Perlow suggests that most of us do not actually work but monitor our work most of the time. We do not have any predictable time offs. We end up having ad hoc offs, sometimes plain exhaustion. Thus, while we seek control over time, we end up having no time to control. Planning is the way out. **Let us take small steps** *– take half-a- day off a week; daily individual plans and weekly plans with partners/team; and build covers for one another, in case of absence.* **They work.**

We, in the business of influence, are vindicated once again. We need information/knowledge channel which authentic, pro-poor and simple to serve various needs of the poor as directly as possible. And this is feasible and possible. Ranganath could start a 'Public TV' with about Rs.100 million by cutting capital and operational costs, in March 2012 from Bengaluru. We need an English Channel and Portal for the development fraternity and other stakeholders and we need local channels and portals for the community professionals and the poor themselves. Public TV launch endorses that this is feasible, possible, and sustainable. And we are already convinced that this is useful. **Let us get going on this.**

I gather during the month that we in the business of influence are like teachers with long-lasting impacts on the lives of the students. The teachers inspire the students towards greatness. To influence successfully -

One needs to engage and hold the attention of the people

One needs to have clear objectives

One needs to be disciplined and have the skills to promote positive behavior

One needs to listen to the people and respond

One needs to engage other stakeholders so that they will not come in the way of learning of the primary stakeholders

One needs to be available

One needs have faith in the capacity of the people and work to unleash this capacity

One needs to know their requirement, aptitude and standards

One needs to have thorough knowledge in the matter and have enthusiasm for the issue

G Muralidhar

One needs to be passionate and excited about influencing and working with them

One needs to have strong rapport, trust and lasting relationships with them

Let us hope to be influencers with teacher's competencies and qualities.

As Mohit Chandra says, we look for the following common key attributes while we hire people to work with us –

3R skills - **r**ead, **w**rite and **a**rithmetic; and speak fluently (English;

'Jugaad' - good at Problem solving, thinking outside the box and seeking new ways of doing things;

Engaging deeply and seek clarifications;

Hunger for Learning, de-learning and re-learning; and

Professional and ethical.

Good life and fit life is needed for people in the business of working with others. I gather, apart from keeping calorie consumption and saturated fat intake down, eating plenty of wholegrain, fresh fruits and vegetables; and cutting down on salt and sugar, there are specific foods that help. These include – Avocado (blood pressure management), Ginger (digestion and blood circulation), Cruciferous vegetables (cabbage, cauliflower, radish etc., fighting toxins), brown rice (increases calorie availability through the day), soya (protein nutrition), garlic (blood thinning), nuts (minerals and immunity), berries and watermelon (antioxidants, vitamins), and water (at least 4 litres) & other liquids. These also help in aging slowly.

Life goes on. We are beginning the process of reflecting on 25 years of Manoharan in Development and the years that ushered him into these 25 years. Can I expect all his associates to send in their reflection on Mano and their association in the coming days? As I reflect on Manoharan, family and friends apart, IRMA and Dairy Board fraternity comes in. Girijan fraternity comes in. A Anuradha comes in. ACCORD fraternity comes in.

Satish's advice to Annie – go when and where you were needed and be there – translates as 'be useful' for us.

Being useful is a demonstration of the love, the highest 'sastra' you have, in life, life of the universe. Sastra needs to be used and use of the sastra needs to be practiced with ability and will. As we learn and acquire ability and taste for 'use', we pursue learn, practice and use ad infinitum. That is joyous unending celebration of life. As we flow in, the universe joins in our flow and becomes one with us as aanandapravaahayogam.

Can we be there? **Yes, if we pursue Atma Yoga.** If we pursue usefulness to this universe relentlessly with concentration! Krshna confirms – universe has a plan for all free souls to flow with it if only they are committed and interested and show their commitment in thoughts, words and actions.

Join us in the world of yoga – for acquiring the sastras of love for useful and blissful life - towards viswavivekayogasiddhi. You will not regret it.