

# BULLETIN

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## OUR BEST FRIENDS

Books, wrote the Old Farmers Almanac a hundred fifty years ago, are “masters who instruct us without rods or ferules, without words of anger, without bread or money. If you approach them they are not asleep; if you seek them they do not hide; if you blunder they do not scold; if you are ignorant, they do not laugh at you.”

Jawaharlal Nehru, a great lover and writer of books, wrote to his young daughter Indira Priyadarshini, a lonely child then with her father in jail and mother in hospital, to grow up into a brave girl in the company of her ‘real friends’ books. Why does one read books? asked Nehru in one of his letters to his daughter and answered thus: “To instruct oneself, amuse oneself, train one’s mind, etc., etc.—certainly all this and much more. Ultimately it is to understand life with its thousand facets and to learn how to live life. Our individual experiences are so narrow and limited, if we were to rely on them alone we would also remain narrow and limited.” Books, wrote Nehru, “lift us out of our narrow ruts and steady us when storms and heavy winds bear down on us.”

*The Collected Works of Mahatma Gandhi* and the *Selected Works of Jawaharlal Nehru* are a treasure trove for all interested in knowing the saga of freedom struggle. There is abundant literature on India’s freedom struggle and several biographies of the great leaders of modern India. *Mahatma Gandhi –Essays and Reflections on his life and work* edited with a scholarly introduction by Sarvepalli Radhakrishnan and *Jawaharlal Nehru an anthology* edited by his son Sarvepalli Gopal bring out the best of Gandhi and Nehru in a concise form. Mahatma Gandhi made it a point to present a copy of the Gita to a bridal couple on the joyous occasion of their wedding. Poignant it is to read that Nehru, granted an hour’s permission by jail authorities to go to the hospital to see his ailing wife Kamala, gave her a copy of Edgar Allan Poe’s poems conveying his love and sadness and returned to his barrack feeling ‘both heavy and empty, lonely and weary.’ Rajaji felt a deep void when

he completed writing the Ramayana, a classic in the English language.

From Gurudev Rabindranath Tagore, India’s first Nobel Laureate in literature, to the recent winner of the Booker Prize, Kiran Desai, India has produced eminent writers whose works have been translated into many languages and who have been acclaimed all over the world. The enrichment of our social and cultural life by vernacular literature is too well known to need special mention here. Literary meets and book exhibitions bear testimony to it.

Among the many good books to arrive in the market special mention must be made of President APJ Abdul Kalam’s *Indomitable Spirit*, Rajmohan Gandhi’s book on his grandfather *Mohandas* and Ramachandra Guha’s *India After Gandhi*. To describe them as unputdownable would be an understatement. They inform, instruct and inspire us. The educated elderly will, of course, read them if they have not already done it. It is the younger generation that should be persuaded to read and learn from them what they have inherited and know why they are the custodians of the future. What the billion plus people of India owe to the great leaders of the past must be made known to every Indian. One is reminded of Sir Ernest Barker’s words written in a different context. Explaining the debt modern world owes to ancient Greece (Athens) Barker wrote : “We are what we are because they were what they were.”

Gandhiji wanted every tear to be wiped from every eye during his struggle to liberate India from political bondage, economic misery and social exploitation. Today our scientist-humanist President Dr APJ Abdul Kalam wants to make the billion plus Indians smile. In the noble and stirring words Jawaharlal Nehru asked : Who lives if India dies? Who dies if India lives? How can we let down ourselves and our great nation when we depend on our best friends—good books?

- The Editor

Coming into contact with a good book and possessing it is an everlasting enrichment of life. - A.P.J.ABDUL KALAM

## **"OPEN SOURCE SOFTWARE TO IMPROVE CIVIC SERVICES GRIEVANCES REDRESSAL SYSTEM LENDS CREDIBILITY"**

(Report on the two lectures delivered by **Mr Srikanth Nadhamuni** Co-Founder eGovernments Foundation Bangalore and **Mrs. Sunita Nadhamuni** CEO Arghyam Bangalore at a lecture-meeting organised jointly by Centre for Policy Studies and Indian Institute of Architects, (Visakhapatnam Branch) on May 20,2007.)

Open source software developed by e-Governments Foundation can lead to qualitative improvement in the management of municipal services, Srikanth Nadhamuni, Managing Trustee of the foundation, has said. Speaking on 'Improving municipal e-governance for service delivery for citizens' organised by the Centre for Policy Studies (Gayathri Vidya Parishad) and the Visakhapatnam Centre of the Indian Institute of Architects here on Sunday, he said one of the key areas related to plugging the leakages in property tax collection, which did not necessarily mean tax hikes, and balancing it with the payroll. Data showed that there was a huge gap between collectible property tax and actual realisation.

Mr.Srikanth said to tackle corruption, government process reengineering was required in which IT had a huge role to play. To improve the credibility of civic bodies and the quality of service, the software on grievance redress had a transparent system. For instance, in New Delhi, water logging was found to be a major problem, whereas media reports focused on water shortage. The geographic information system helped in complaint distribution/density zeroing in on problem areas. He said the trust was co-founded by Nandan Nilekani, CEO of Infosys, and was being run by the Rs.15 crores corpus contributed by him.

### **Lucid and clear**

The lucid presentations on civic services and water for all at a lecture programme by Srikanth Nadhamuni and Sunita Nadhamuni focused on crucial aspects of the two subjects. The Centre for Policy Studies and the Visakhapatnam Chapter of the Indian Institute of Architects organised the lectures. Ms.Sunita is the CEO of Bangalore-based NGO Arghyam, which literally means 'offering.' The organisation's works is funded by an endowment of Rs.100 crores set up by Rohini Nilekani, wife of the Infosys CEO. It works with the goal of safe and sustainable water for all. She spoke at length on the inequities in water availability, lopsided subsidies

benefiting the rich, moving away from traditional methods, lack of education on water-related issues etc. The organisation has initiated several interventions, including in Rajasthan, Gujarat, Uttar Pradesh etc. A massive programme in Karnataka had been taken up as a part of Bharat Nirman programme. Rain water harvesting structures are constructed in 23,000 schools at a cost of Rs.74 crores. Arghyam took up an intervention in 3,500 schools in eight districts. Shockingly, it revealed that 80 per cent of the structures were not working. In some schools, teachers were not even aware that the structures were constructed. Perhaps water is scare but money is not. Obviously, how well it is spent matters.

CPS director A.Prasanna Kumar and IIA Chairman Y.Narasimha Rao participated.

(Courtesy: G.V.Prasada Sarma, The Hindu May 21 and 22,2007)

## **THE HEAT IS ON**

- Prof. M.N. Sastri

"Climate change is a global issue and there is an obligation on us all to take action, in line with our capabilities and historic responsibilities" said the statement from Global Legislators Organization for a Balanced Environment (Globe) at the end of a Summit forum held at Washington DC in mid - February 2007. Legislators from several countries including the Group of Eight Rich Nations. Brazil, China, India, Mexico and South Africa, with a lead from UK, participated in this summit convened, following the failure of the United Nations climate negotiations in December 2006 to agree to a timetable for mandating new cuts in greenhouse gas (GHG) emissions when the Kyoto Protocol expires in 2012. The Kyoto protocol, even during the period during which it has been in force, proved in effective, with the US, the biggest contributor to the emissions, refusing to be a party and several industrial nations not meeting the reduction targets. Developing countries such as China, India and Brazil that were exempted from the Protocol have now become significant contributors to the GHG emissions. The Summit came to the inevitable conclusion that the developing countries also would have to face targets on GHG emissions in the same way as industrial nations do. The US also appears to be convinced that the world has reached the tipping point and it should also join the global efforts to cut the GHG emissions. A summit under the UN Environmental Agency is tentatively planned for September 2007 to arrive at a successor to the Kyoto Protocol.

Earlier in February, the Intergovernmental Panel on

Climate Change (IPCC) in a report released in Paris stated that climatic changes seen around the world are "very likely" (greater than 90 percent probability) caused by human activities. In contrast to the previous report of 2001 in which the IPCC was somewhat conservative by saying that it was "likely" (66% to 90% probability) that human activities were responsible for the observed climate trends, the IPCC has now come out in a stronger language. The following are some projections for 2100.

Probable temperature rise 1.8C to 4C  
Possible temperature rise 1.1C to 6.4C  
Sea level rise (most likely) 18 cm to 59 cm  
Arctic sea disappears in second half of the century  
Increase heat waves "very likely"  
Increase in tropical storm intensity "likely"

Predictions of sea level rise are one of the most contentious topics. One recent estimate projects possible rises of up to 140 cm. Scientists also warn that hotter temperatures and sea level rise will continue for centuries no matter how much humans control the GHG emissions and pollution.

Yet another great danger is the possible amplification of the global warming through the release of carbon dioxide and methane gases locked under the tundra and the permafrost in the northern soils in the Arctic region. There is about as much carbon locked in the region, as there is carbon in the atmosphere. There are already indications of increasing release of these two gases through the temperature rise. Further rise in global temperatures accelerate the release of these gases with a cascading greenhouse effect.

The consequences of human activities on climate and other global phenomena highlighted in earlier articles (Millennium Ecosystem Assessment I-VI) show how human activities are altering the planet's habitability. The next generations could find themselves spending much of their time and resources moving cities in land, managing refugee populations, relocating agriculture and keeping biodiversity from going extinct. Studies on the effects of global warming on India unveil the following scenario.

Rising temperatures in the Himalayas and the Quighai - Tibet Plateau might result in a faster meltdown of the glaciers and cause a larger inflow of waters into the Indus, Ganga and Brahmaputra Rivers followed by drying and triggering droughts and desertification.

A metre sea level rise would lead to the submersion of 567,400 hectares of land threatening large cities such as Mumbai, Koklatta, Goa and several small cities, displacing more than 7.1 million people.

The economic impact on Mumbai could be about Rs.2,28,700 crores.

Fall in production alone could push GDP down by 1.8% to 3.4%. The total impact of climate change could be as much as 9% of the GDP which stands at Rs.28, 44,000 crores during 2006-07.

Rice yields could fall by 15 to 42% and wheat yields by 3.4%. There will be a loss of 125 million tonnes (18%) of rain-fed cereal production.

If the planet is to be saved from this impending danger, these scientific realities also have to be weighed along with political, social and economic factors. The politicians and administrators should realize that making decisions based on ideology alone is not the correct approach. What we need urgently are new politics and new ethics.

A widely cited story in this context is that of a frog. It jumps out if dropped into hot water. But if it is put in cold water and the water is brought to boil slowly, it will stay and eventually die. Scientists warn that if we are complacent to global warming, we are doomed to end up like the frog. The renowned astrophysicist Stephen Hawking warns, "Life on Earth is at the ever-increasing risk of being wiped out by a disaster such as sudden global warming, nuclear war, a genetically-engineered virus or other dangers we have not yet thought of". He says that the survival of the human race depends on its ability to find new homes elsewhere in the universe. If the humans can avoid killing themselves in the next hundred years, they should spread out into space for survival." He warns that we won't find anywhere a place as nice as Earth unless we go to another star system. But the question is, where do we move? According to recent computer simulation study by the astronomers, the nearest star system, which could possibly have a planet suitable for the humans to settle, is the 4.7 billion year old 55 Cancri star system 41 light years away from Earth. One light year is the distance that light travels in one year or 5,878,000,000,000 miles. Finding a habitat that can provide shelter to the nearly 10 billion people and acquiring the capacity to physically transport them there will however remain in the realm of science fiction for a long time to come. Meanwhile time is running out for humans with no alternative except to get cooked like the frog in the vessel !

Apparently Hawking himself was not happy with the solution he suggested. He posed the following question on the Internet for answers

"In a world that is in chaos politically, socially and environmentally how can the human race sustain itself another hundred years?"

About 25,000 posted their replies. Some said we should just learn to get along, others predicted that technology would save us through and more still evoked the powers of God, love and peace (Gandhian approach). After going through all the answers, the 64 year-old scientist pronounced his answer.

"I don't know the answer. That is why I asked this question".

We conclude this narrative with another poser.

"Does the human race have the will to survive?".

## **Technology for the benefit of Humankind**

A. Prasanna Kumar

(Excerpts from a lecture delivered at NSTL, Visakhapatnam, on Technology Day May 11,2007)

It is appropriate to begin my presentation by offering thanks to Shri V.Bhujanga Rao, Director NSTL and Shri S.V.Rangarajan, Principal Associate Director for inviting me to this function to address this gathering of distinguished scientists and employees of NSTL when it is celebrating Technology Day by organizing a highly useful exhibition for the benefit of school children. Being electronically illiterate and aware of my limitations to speak on the subject I pleaded with the Director not to choose me for the occasion. The generous insistence of both the Director and the Principal Associate Director has brought me here this morning and I feel honoured to be here on the occasion.

May 11 is celebrated as Technology Day as on this day in 1974 India conducted its nuclear explosion at Pokharan. It was a day of triumph for Indian science and technology which has since been annually celebrated all over India. The acquisition of the awesome power of nuclear technology has raised India's stature among the comity of nations. Still, India has proclaimed time and again its commitment to the use of nuclear technology for peaceful purposes. No nation has striven so long and so consistently for the non-proliferation of nuclear weapons as India has done. One is reminded on this occasion of the famous words of Robert Oppenheimer, the father of the atomic bomb, after conducting the atomic explosion. He had before his eyes the vision of Divine Krishna suddenly growing to reach from earth to heaven, taking on a dazzling multicoloured form with numberless arms and eyes, the numberless flaming jaws that swallowed the armies, saying "I am become Death, the destroyer of the world." Indeed the Viswaroopa before his eyes!

I propose to speak on Technology for the benefit of Humankind focusing on three great men belonging to different centuries—Sir Arthur Cotton of the 19<sup>th</sup>, Sir M.Visweswaraya of the 20<sup>th</sup> and Dr APJ Abdul Kalam of the 21<sup>st</sup> centuries. There are some striking similarities among them. All the three are engineers and benefactors of humankind. Hard work and never-say-die spirit are the secrets of their success. Arthur Cotton who worked with indefatigable energy, in spite of many odds including the heat of summer for five years, to complete the huge Godavari barrage said: "The more I worked the stronger I became." M.Visweswaraya's motto was: "Worry kills, not work. I shall work till the last breath of my life." APJ Abdul Kalam wrote that hard work, sweat and perseverance are the lessons science taught him. All the three held that science and spirituality go together and both must be used for the benefit of humankind. Cotton who transformed the famine-stricken areas of Andhra and Tamil Nadu into prosperous regions is literally worshipped even today as a God by the people of the Godavari districts. Sir M. Visweswaraya's genius in building dams, irrigation projects, educational institutions and industries brought prosperity and cheer to many states and cities of undivided India and even the Gulf of Aden. Dr APJ Abdul Kalam is not only a world -renowned scientist and aerospace engineer who helped India to become a technological giant but also a humanist and a source of inspiration to the nation. As stated in his inimitable words Kalam's mission as a scientist is to provide strength and security for the nation and as President to put smiles on the faces of the billion plus people of India.

I wish to refer briefly to the life and work of the three savants and benefactors and the inspiring legacy they have bequeathed to us.

**Sir Arthur Cotton:** Born on May 15,1803 Arthur Cotton was the tenth son Henry Cotton who was himself the tenth son of Sir Lynch Cotton. Arthur Cotton came to India as an engineer. He discovered the rotary engine, though he was injured in the process. Fascinated by the water resources of the Carnatic region which could become one of the richest regions of the world, Cotton felt that "so magnificent a country in such a state of ruin was the greatest disgrace to a civilized government." He built two anicuts across the Coleroon in 1835 that brought prosperity to Tanjore and Trichnopoly. Cotton then turned his attention to Andhra region. When he was in Vizag for a short while he built a church and some channel works at the harbour. He prophesied a great future for Vizag harbour and even suggested the construction of outer harbour 'with blocks of granite of any size from Dolphin's nose, costing nothing but powder, loading etc.,' He turned

his attention to Godavari and wanted to take up irrigation works. He felt that water could be converted into money. The people had represented to the Governor of Madras Grant Duff about their problem and explained how “the people perished for want of water that flowed in abundance at their feet.” Edmund Burke called the rivers “the national bank of India.” Godavari, the mighty river with its 1500 kmlong course fascinated Cotton and described it as “ the unfailing river, an immense expanse of the richest soil, a safe and accessible port, a complete internal water communication with teak forests and abundance of labour, from such a combination of advantages as, I suppose, cannot be found in the world and certainly not under such a government as ours.” Cotton wanted to build an anicut on the Godavari and submitted a plan to the government. The visionary-engineer was also a man of faith and after submitting the proposal to the government he said: “The matter is God’s, not mine. And if He has a purpose of blessing the district He will find instruments for His purpose.” The Governor of Madras the Marquis Tweeddale supported it and the Court of Directors sanctioned the project in December 1846. Work began in April 1847 and it took five long years to finish the anicut. 10,000 labourers, 500 carpenters and as many smiths worked on the project under the guidance of Arthur cotton. “The more I worked the stronger I became.” He chose Dowleiswaram for the project and on completing it declared it as ‘victory for peace.’ Morris called it the ‘noblest feat of engineering in British India’ and hailed Cotton as ‘the founder of the cheapest school of engineering, in the world.’ Trade and revenue leaped and Godavari district jumped from 13th place to second among the 22 districts of the Madras Presidency. Trade which was around 300,000 pounds in 1862 doubled touching 740,000 pounds by 1872 and leaped to 15,00,000 pounds in 1888. Revenue grew more than four fold boosting the Madras Presidency’s by 25%. Agricultural progress was phenomenal. It was described as “the noblest feat of engineering skill which has yet been accomplished in British India.” In the Commons it was said “ Had he killed in battle a hundredth of those he saved from suffering and premature death, he would have received the thanks of both Houses of Parliament, been made a peer and have received a large grant from the public funds. His name will be venerated by millions yet unborn.” It was rightly observed that Arthur Cotton ushered in ‘agrarian revolution’ in South India. His love for India and her people was such that he regularly wrote to the British government suggesting measures for saving the people from famine and was often critical of the government for neglecting India. On July 14,1899 he died at the ripe age of 96. “His works have already saved

thousands of lives and will continue to do so as long as the world lasts.”

**Sir Mokshagundam Visveswaraya:** Mokshagundam Visveswaraya’s ancestors went from Kurnool to Kolar and settled there. Visveswaraya was born in a village near Bangalore in September 15, 1861. That was the year in which were also born Rabindranath Tagore, Motilal Nehru and Madan Mohan Malaviya. Visveswaraya was 15 when his father died. Despite hardship he pursued his studies and stood first in the B.A. examination and studied LCE in Pune on a scholarship. He started career as an assistant engineer in Bombay PWD and worked for 23 years. His innovative skills came into prominence when he introduced siphon system of irrigation. Constructed the Khadakvasla dam and reservoir to provide drinking water supply to Pune. Later he built flood-gates at Krishnarajasagar Dam. He was elected to London Institute of Engineers and received Kaiser-I-Hind in 1906 by Gulf of Aden Authorities. He designed the Musi project in 1909 and designed two reservoirs at the request of the Nizam of Hyderabad.

Visveswaraya was made the Chief Engineer and Dewan of Mysore from 1912 to 1918. A man of extraordinary genius and impeccable integrity he straddled like a Colossus four areas-agriculture, industry, electricity and education and contributed significantly for the all-round development of the state. As an administrator he instituted Mysore Civil Service on par with ICS He established the Mysore University in 1916 and was Bhadravathi Steel’s Chairman from 1923 to 1929. He took up not only construction of dams but also extension of Railways. His role in the development of Karachi and Bombay is well known. He helped in building the Lloyd’s Barrage now in Pakistan and raised three dams in Orissa on Gandhiji’s advice.

He was Director Tata Iron Steel and Indian Institute of Science Bangalore. In 1933 on his advice ships were sunk at Vizag harbour enabling the port to grow into one of the best ports of India. At the age of 92 he flew in the cockpit of a plane to study the construction of Farraka Barrage on Ganga. He was also called the ‘father of planning.’ He started the All India Manufacturers Organization and was its President from 1941 to 1954. The Government of India honoured him with Bharat Ratna. Sir Mokshagundam Visveswaraya continued to be active till his last and he passed away on April 14, 1962 at the age of 102.

**Dr APJ Abdul Kalam:** Dr APJ Abdul Kalam the President of India is a living legend. Born on October 15, 1931 he rose from humble *(continued on page 7)*

Another Masterpiece from President Kalam  
**Book Review:**  
**Indomitable Spirit : APJ Abdul Kalam**

- Rajpal, Delhi 2006 pp 254 Rs350

This is a work, as mentioned on the blurb, that “mirrors the very essence of his own life’s journey from the shores of Rameswaram to the hallowed portals of Rashtrapathi Bhavan.” The words remind us of the rise of that great American President from log cabin to the White House. This is the story of a simple yet great man, our respected and popular President, “the quintessential APJ Abdul Kalam –the man, the scientist, the teacher and the President.”

The story begins with a moving narration of the hard times in which young Kalam grew up in a large family subsisting on limited resources with his mother and grandmother taking care of the house with quiet dignity. “At any point of time there would be three cradles at home and the environment alternated between happiness and sadness,” writes Kalam of his childhood. The boy would get up at 4 a.m. to get ready to go to learn mathematics from his teacher Sri Swamiyar from 5 a.m. and rush back home to be taken by his waiting father for namaz and to learn the Koran Sharif at the Arabic School. After that he would walk three kilometers to the Rameswaram Road railway station to collect the bundle of newspapers thrown out of the passing Dhanushkodi Mail. “I would pick up the newspapers and run around Rameswaram and be the first to distribute them in the town. After that I would return home by 8 a.m. and my mother would give me a simple breakfast with a special quota compared to my other brothers and sisters as I was studying and working simultaneously,” writes Kalam. His evening schedule would end after school hours only after he collected newspapers dues from customers.

The first chapter titled *Inspiring Lives* has the subtitle ‘My Mother’ who along with M.S.Subbulakshmi influenced Kalam early in his life. “Womanhood is a beautiful creation of God,” he says. One of the greatest moments of his life was when he, already a Bharat Ratna then, sat by the side of M.S.Subbulakshmi when she received the Bharat Ratna on December 12,2004. M.S. had cast a spell on young Kalam in 1950 at the annual Thyagaraja Aaradhana festival at Tiruvaiyaru in 1950 when she sang the famous Pancharatna kirtanas.

Five Mighty Souls—Vikram Sarabhai, Satish Dhawan, Brahm Prakash, MGK Menon, and Raja Ramanna —receive due recognition in the pages that

follow. So do ‘Great Visionaries’ like C.Subramaniam, M.S.Swaminathan, Verghese Kurien and Homi Bhabha for their outstanding contribution to national development. A touching reference is made to his teachers and Kalam says that “there is no other profession in the world that is more important to society than that of a teacher.” A real guru is one who helps the weak students more than the others and primary teachers play a vital role, more than college and university teachers. Sarvepalli Radhakrishnan is quoted on quite a few occasions including his advice that teachers must possess ‘intellectual integrity and universal compassion.’ Kalam narrates how his first teacher Siva Subramania Iyer ably combined theoretical lessons with practical examples and because of whom Kalam’s life “was transformed as a rocket engineer, aerospace engineer and technologist.” A teacher’s life lights many lamps and a candle loses nothing by lighting another candle, he writes. A teacher is one who thinks what he can give to others instead of asking people to give him something.

The book is most useful and inspiring for the younger generation in particular. Education, writes Kalam, is an endless journey through knowledge and enlightenment. He presents an education model for the 21st century. The five components are 1)Research and enquiry, 2) creativity and innovation, 3) capacity to use the high-end technology 4)entrepreneurship and 5)moral leadership to do the right things. He emphasizes creativity which is the ability to innovate, to imagine, to invent something new. Like Swami Vivekananda in the 19th century and Radhakrishnan in the 20th Kalam emphasizes the superiority of the human mind over machine saying that the imagination of the human mind would always be superior to the computer.

Kalam the scientist writes on the power of modern technology and the exciting achievements of science. Kalam the visionary provides a framework for the development of education and character of the youth. “Good books were angels for me”, he says referring to the role of books in moulding the young minds. Kalam the President is writes on matters political, economic and social. He is concerned about growing corruption and offers a long-term solution by suggesting that the fight against corruption must begin with a key role by three societal members—the father, mother and the teacher.

Kalam’s equations are both fascinating and inspiring. If the earlier formula for the youth was transforming dreams into vision, vision into plan of action and plan of action into achievement, the new formula for national development is through the path of science to technology,

technology to economy and economy to society. He calls for integrated action in five areas—agriculture, power, transport, education and communication. Enlightened citizenship has three components education with values, religion becoming a spiritual force and economic prosperity through development.

The essence of this work lies in the elegant way in which Kalam blends science and spirituality. Religions are beautiful gardens, enchanting islands, veritable oases for the soul, writes Kalam the great scientist and engineer. That he raised a spiritual garden in Rashtrapati Bhavan calling it 'a flora for humanity' bears testimony to the humanism of the scientist and also a tribute to his teacher Siva Subramania Iyer who had taught him to combine theory with practice. The references to two episodes, first about Swami Vivekananda blessing J.N.Tata in the latter's mission to establish a steel mill in India and the second when the Bishop of Trivandrum Dr Pereira allotted Church space to Vikram Sarabhai to set up ISRO make every Indian feel proud of our culture and heritage.

What is Kalam's mission? As a missile man to provide strength and security for the nation and as the President to put smiles on the faces of billion plus people of India. He quotes Sir C.V.Raman who identified defeatist spirit as the biggest weakness of India. We must overcome it. Kalam's mission is to awaken our indomitable spirit. The beautiful Persian poem titled 'Courage' he quotes, explains it all:

" I don't have legs  
My mind says: Don't weep  
For, I need not bow  
Even in front of a king."

- The Editor

**(Technology for the benefit of Humankind :** *(continued from page 5)* beginnings to great heights and as it is said in the introduction to his book from the shores of Rameswaram to the Portals of Rashtrapathi Bhavan. A scientist of world renown he is responsible for India's leap in space technology by designing the first satellite launch vehicle SLV-3. His books *Wings of Fire, Ignited Minds, India 2020 : A Vision for the New Millennium* and the latest *Indomitable Spirit* have earned for him a huge following across the length and breadth of India. A man of endearing simplicity and rare humility Kalam is the most popular Head of State India ever had. Adults admire him. Children adore him. His mission as a scientist is to provide strength and security for the nation and as President to put smiles on the faces of the billion plus Indians. Dr

Radhakrishnan, Kalam's great predecessor, wrote that civilization has been built by the seer and the scientist, the compassion of the former and the vision and commitment of the latter. Our technologists, like the three mentioned above, are seers in their own way.)

## THE MENACE OF INFLATION

- Shri T. Hanumantha Rao, M.A.  
Lecturer (Retd.), Anakapalli

In recent years, inflation has widely attracted the economists all the world over and it has become one of the most crucial current macro-economic problems for many countries, both developed and underdeveloped. It has assumed alarming proportions constituting a threat not only to economic stability, but what is more serious, to political stability. As million Friendman said, "Throughout the World, inflation is a major source of political unrest."

Among the many problems that the country is confronted with, the most serious one which threatens to shake the very foundations of the economy is the problem of inflation. It is quite noticeable that inflation worries overshadowed even the union budget, 2007-08. Though the Central Finance Minister has been claiming credit for nine percent GDP Growth rate and building castles in the air on the basis of increase in sensex points, the actual fact is that the budget has betrayed the hopes of millions of ordinary people and proved that the much-touted slogan of "inclusive growth" is only a mirage. People in villages do not understand what is nine percent growth rate but only talk about how prices of essential commodities like tomato, potato and others have gone up. With the consumer price indices soaring above the already high wholesale price indices, the common man is bearing the brunt. Further, the prices of industrial products like Cement and steel have skyrocketed due to Government's faulty policy and the common man's desire to construct his own house has remained only a distant dream. The congress led UPA coalition would be signing off its own "death warrant" if meaningful efforts are not made at the earliest.

It has to be realised that the principal author of inflation in any country at any time is the Government of the Country and our Government is no exception. It is unwise to trade away price stability for an expected rate of economic growth which is not to be treated as be-all and end-all. The need of the hour is to moderate inflation and bring back the economy on an even keel. The Government must take time by the forelock and

implement all the necessary measures in conjunction with the RBI before the situation goes out of control. It is pointed out that in the first place, Indian inflation is essentially of the demand-pull type rather than of the cost-push type. Expansion in money supply and bank credit and heavy investments in the private sector have led to an increase in aggregate demand and disposable income which enabled people to buy and consume more. It seems as though the ghost of Irving Fisher is alive in India and to add fuel to fire, black money has encouraged lavish spending resulting in excess demand.

Prof. P.R. Brahmananda nicely said, "The zebra is an animal which has stripes in its skin. No body can tell whether these are white stripes on a black skin or black stripes on a white skin. The Indian economic system today is like a zebra. It is difficult to state whether the black money operations occur in the background of a white money dominated system or whether white money operations occur under the background of black money dominated system. Black money and corruption are the twin brothers." The sooner the black money is unearthed, the better will it be for the economy.

Of the twin policy measures, fiscal and monetary that are sought to be implemented, the former is said to be the senior partner. But as the Finance Minister has admitted that there is only little place for major fiscal corrections. The several measures undertaken by the Government such as lowering down customs duties on a number of items, liberalisation of imports of wheat, pulses etc., banning forward trading in wheat and rice have not proved effective and served as only temporary palliatives as the inflation has been reigning around 6 percent and the RBI has expressed hope to contain it close 5 percent during 2007-08. Nevertheless, the government should not fight shy of imposing a long term capital gains tax if necessary. Time alone will decide.

The critical thing is supply side. A lasting solution can be had if the Government evolves long term measures to increase agricultural production, especially output of food and cash crops and correct the supply and demand mismatch. The Agriculture Ministry would do well to pay more attention to farm sector and less to cricket Board elections and stop treating it as a cinderella. At a meeting of the planning commission at New Delhi recently, the Prime Minister rightly exhorted the state Governments to make attempts to increase agricultural growth rate from 2 to 4 percent.

Traditionally, monetary policy has emphasised price stability while taking care of economic growth. Though

the tools of the policy were once outmoded, they (especially the bank rate) have come to the fore recently throughout the world. Seeing the developments in the country, the RBI has been aggressively tightening monetary policy since December last or to be more precise from September 2004 through a series of hikes in bank rate (long term rate), repo rate (Rate at which RBI lends short term money to banks), reverse repo rate and CRR (Cash Reserve Ratio) expecting to suck up Rs.15000 crore liquidity from the system. But, surprisingly enough, the bank credit has continued to grow annually at 30 percent and more. The overall inflationary situation has not showed any signs of improvement. Some people are of the opinion that the rise in interest rates is not the correct drug for the malady and the solution has to be found elsewhere in capacity additions in industry and agricultural revival.

It is often advocated by some that a prices - income policy which embraces restraints on wages, profits, dividends etc. would help achieve the objectives of economic growth, price stability and social justice. But it requires careful examination and cautious approach as it has run into heavy weather in some countries where it was in vogue during the past.

Ultimately, it has to be conceded that Indian democracy is in peril and the government should think of an anti-inflationary policy which would involve many-sided programmes such as marked austerity all round and so on, for, otherwise, the gains from development will be eaten away by inflation.

## **TENNETI VISWANATHAM REMEMBERED**

- Shri E.V. Ramasubrahmanyam

Gandhiji proclaimed repeatedly, "defeat never dares to embrace a satyagrahi with tenacious regard and attachment to truth" and Tenneti was one such lifetime Satyagrahi, truth seeker and a true patriot that fought to free India from foreign yoke along with his guru Prakasam, Gandhiji and various other great patriots of our country. He was wedded to Truth.

He was a Sathyagrahi, a true Gandhian and a faithful follower of Andhra Kesari Tanguturi Prakasam. As a people's representative, minister, administrator, parliamentarian, he made maximum contribution in achieving the various projects that helped to increase irrigation and food production. He brought out legislations that helped the poor tenants. He played an

active part in getting the steel plant located in Visakhapatnam. He was the voice of the people.

People in general, fail to understand and take advantage of the lives and teachings of the great men, who spend all their energy and time for the good of others, motivated by the sayings of great seers like Swami Vivekananda.

A dedicated and devoted patriot that he was, blessed by god with a handsome personality, Tenneti, was a universal mind whose sympathies were co-extant with humanity. In his political life too, he actually lived "Asparsa Yoga - yoga of non-touch. Goudapada, the great 'Parama' guru of illustrious Adisankara, in his "Karika" on Mandukya Upanishad", salutes this Siddantha. Swami Raganathananda asks, "Yoga of non-touch with what? and answers himself "Yoga of disconnection with all connection with Gain/Joy/Success". Tenneti was a Janaka in contemporary political era, a great karmayogi, a fact that amazed the first Prime Minister of India, Nehru and Indira who made efforts to make him a Finance Minister at the centre but Tenneti declined the offer. However, we feel that it was the nation's ill-luck that he did not enter active politics at national level.

As stated by late Sri Cherla Ganapati Sastri in his introduction to Tenneti's Biography (along with the then V.C. of Andhra University), Dr. Tenneti was endowed with a high degree of equanimity (Samadarshana). He did not marry when his wife died five months after the wedding. He led an exemplary life and was looked upon as a role model. In those days there were three legislators who were highly respected in Andhra - Tenneti, Vavilala and Sundarayya, known for simplicity, dignity and integrity.

As Turlapati, the journalist and ardent admirer of Tenneti, aptly puts it, "Tenneti's heart is Ramayanam, his mind is MahaBharatam and his soul is full of Bhagavata."

I am of the opinion that to perpetuate his memory, Dr. Tenneti vedic/upanishadic values research institute should be started for the benefit of the people of the present day and as a befitting tribute to this great soul.

## LIFE'S LOVING LESSONS

Employment Guarantee: May Be, This Could Inspire

Prof. Bhanoji Rao  
(GIFT, Visakhapatnam)

Way back in 1960, I was out of work for some eight days and got the first (and thank God the only) taste of unemployment. It soon became clear that I just could not stand the teasing of my friends about my new status. I decided to escape the misery by joining my maternal uncle as his assistant.

My uncle was a *Pauranik*. He selects a village, spends a week or more, reads the poems (one by one) from Mahabharata and comments on them. Sessions are held every evening at a designated place, starting at a fixed time, usually around 8 pm and going on for about an hour and a half. His boarding and lodging are taken care of by the village elders and the relatively well to do. Uncle also used to receive an honorarium, apart from the uncertain daily collection at the end of the session, placed by the audience in a platter.

This time around, my uncle had the engagement at Hiramandalam, a village in Srikakulam district of AP State. I requested him to accept me as his 'reader' and allow me to read the poems. He could thus 'specialize' on commenting, instead of handling both reading and commenting. It was a division of labour that he has no need for, but maternal uncles are generally an obliging lot and my uncle was most obliging.

We both landed at the village and I joined duty forthwith. On the first evening session of the *purana*, my uncle introduced me to his audience with the statement: "here is a highly educated man not at all hesitant to read the poems of Mahabharata in public for the benefit of the community ...". The particular segment chosen from the epic is known as *udyoga parva*, and there is a belief in some quarters that reading the segment sincerely will bestow on the reader an *udyoga* or a job.

The *purana* sessions, which normally were the pastime of the old, began to attract some young people also, thanks to the addition of a young 'reader'. During the day I used to interact with the youth of the village and discuss their educational programmes and prospects. I worked for just about three days/nights and left the village for an interview for a position in a research outfit, and soon obtained the job. For my work at the village, I received some new clothes and some cash as well. I used to wonder whether the job was the blessing of the Almighty pleased with my reading of the *purana*.

Here is another episode for my esteemed readers.

In 1962, as I was expecting the appointment letter for a lecturer's position in a college. I told the then current employer that I was soon to tender my resignation. I vacated the rented room and moved to a relative's place, to save on the expenses. The evening before the day the appointment letter was expected, as I was walking on a busy street, a family friend met me and gave me the chilling news that the College Board decided against the creation of a position.

I was in tears on the busy street. Within seconds my moist eyes fell on a pavement bookshop and a tiny book '*Adithya Hrudayam*' attracted my attention. I picked up the book and looked at the introduction. It says that anyone in dire difficulty could benefit immensely by chanting *Adithya Hrudayam*. I bought the little book and chanted the hymn three times the next morning. Within hours after that I received an appointment letter for a fellowship for which I did not attend the interview in anticipation of the post of lecturer. That was the power of *Adithya*.

Remembering that episode with gratitude, I got a couple of thousand copies of *Adithya Hrudayam* printed for distribution among friends in the early 1980s. A Japanese scientist who received a copy got it transliterated in to Japanese. I am sure they believe in the power of the 'rising sun'.

## AMAZING FOLK AND TRIBAL DANCES OF INDIA

- Ms. Sudharani Kalavagunta

Art is a true expression of innate feelings. Among the 64 Arts, Dance stands in high esteem. India is a land of varied cultures and traditions. In India, Dance has a unique place in the hearts of the people since ages. Folk and Tribal Dances are linked up with their lives in many ways. In every nook and corner we find some kind of dances pertaining to the place blending in itself all the specialities of the surroundings. They differ in character from place to place exhibiting their individual traditions and culture.

Indian folk and tribal dances are very simple and subtle. These dances are performed to express happiness. Folk dances are performed almost on all occasions such as the arrival of seasons, birth of a child, a wedding, festivals, harvesting, planting and religious holidays. Since every festival is accompanied by celebrations, folk dances have become an integral part of our social life.

Many folk dances are performed by ordinary people rather than the professional dancers. The difference between the folk and tribal dances is cultural. Tribal dances are performed by India's aboriginal population. These people are also called as "Adivasi", have a culture which is very distinct from the larger Indian population.

The folk dances are extremely simple with minimum of steps and movements. They are also full of energy and vitality. Some dances are performed exclusively by men/women, while in some performances men and women dance together. On most occasions the dancers themselves sing accompanied by artists with instruments. Each form of folk dance has a specific costume and rhythm. Most of the costumes worn for folk dances are colorful with extensive jewels and designs.

There are numerous folk dances in India which are constantly being improved. Some of the prominent folk dances of India are Bamboo Dance, Bihu, Bhangra, Chhau, Dandia Raas, Dhol Cholam, Dumhal, Tappeta Gullu and so on.

**Bamboo Dance** : Men and Women both perform Bamboo Dance of Mizoram. While the men hold the bamboo sticks, the women folk dance between them. In this performance the sound of the bamboo sticks hitting each other is the rhythm. It is very dangerous if the rhythm is missed but the experienced dancers perform with grace, care and great skill.

**Bihu Dance** : Bihu Dance is a folk dance of Assam related to the festival Bihu. The joyous dance is performed by both young men and women characterized by brisk footsteps, rapid hand movements and a rhythmic swaying of the hips in order to represent youthful passion. The Bihu dance is accompanied by traditional folk music played with Dhol - (Drum), Mohor singor pepa (a pipe instrument made from a buffalo horn). Tala (Cymbal), Gagana (Reed), Bamboo Instrument and Toka (Bamboo Clapper).

**Bhangra Dance** : Bhangra is a lively form of folk music and dance that originates from Punjab. People traditionally perform this dance during the celebration of Baisakhi. This dance form is accompanied by drums, flutes, dholak and other musical instruments. Initially, Bhangra started as part of harvest festival celebration. It eventually became a part of such diverse occasions as weddings and New Year Celebrations.

**Chhau Dance** : Chhau Dance is a popular folk dance of Bihar. Since masks play an important feature of this dance it is called Chhau, which means mask. All the Chhau dance performers hold swords and shields while performing. The stages are brightly lit by torches, lanterns

and flickering oil lamps. The musical instruments used are a Dhol (drum), Nagara (a huge drum) and Shehnai (Reed Pipes). The Chhau dance is performed by men and boys.

**Dandia Raas** : Dandia is a popular folk dance of Gujarat. Dressed in colorful costumes the performers play skillfully with big sticks in their hands. Dandia dance is supported by the musical instrument called Meddale, played by the drummer in the center. Each performer holds two sticks, which they strike alternately to the right and left while the group dances. They also move diagonally, clockwise, anti-clockwise, as they strike the sticks.

**Dhol-Cholam** : The festival of Holi, in spring, is the real time for drum dances, such as Dhol Cholam. The drum, by itself, enjoys a privilege in the dances of Manipur. There are several kinds of drums, each intended for a particular occasion. Besides the ritual and harvest dances, there are the simple recreational dances which capture movements of animals and birds and everyday functions. One of the popular items is Thang-Ta dance of Manipur which has evolved from the martial arts and drills promoted by the kings of Manipur. The dance is very exciting and is performed by young men holding swords and shields.

**Dumhal Dance** : Dumhal is a famous dance of Kashmir. This dance has an interesting tradition wherein the performers of this dance place a banner into the ground at a fixed location and dance around it. In this dance, the dancers themselves sing and it is supported by drums. This dance is performed with long colorful robes, tall conical caps studded with beads and shells.

**Tappeta Gullu Dance** : This dance is a popular dance of Andhra Pradesh. It was originally performed by shepherds as a ritualistic dance to propitiate the Rain Goddess, Gangamma. Eventually, it evolved into a major festival and processional dance form. Tappeta Gullu is performed on different occasions and on different festivals. A group of 15-20 people perform this dance with drums around their necks, creating mesmerizing beats and with heart stopping acrobatics. Some of the popular Tribal dances of India are Banjara Dance, Kayang Dance by Kinners, Reangs Dance and Valar Dance by Garasias.

**Banjara Dance** : Banjara comes from the state of Andhra Pradesh and these are dances of the gypsy tribes of the state. These tribes have a tremendous passion for color and the costumes of the dancers are in fantastic bright colors and are studded with mirror work and embroidery. These dances usually depict household and day to day events, like work in the fields etc. The dancers

form a circle and move around depicting their profession.

**Kayang Dance** : Kayang is a popular dance form of the Kinners from Himachal Pradesh. It is a rosary dance in which the artists hold hands in a cross form that look like the beads of a rosary. The male dancers take their positions one after the other alternatively. The leader of the party carries a whisk in his hand and starts the dance. This form of dance is both thrilling and heart-warming.

**Reangs Dance** : The Reang dance is performed by the tribes in Tripura and is a part of their daily life. This dance is performed to the accompaniment of drums, flutes and other stringed instruments. The Reang women standing on earthen pitchers rhythmically twist the lower part of their bodies while at the same time balancing and waving metal plates on their hands. The dancers wear colorful costumes and other conspicuous items such as jewellery made of beads and silver.

**Valar Dance** : Valar is the typical dance of Garasias tribe in Rajasthan. The songs are woven round the beauties of nature; starry nights, moonlight, mountains and restless rivers. It is an expression of romantic feelings rendered in a lyrical mood. Artistically, the dance is highly developed and seeks to establish correlation between word, sound and gesture. The dance is characterized by colorful costumes and silver jewellery. The folk and tribal dance style philosophy is based on the unique individual and collective strength of its members. There is no place for competitiveness, jealousy or envy in the community as each dancer is encouraged to find the movements that best suits his/her body and personality. There is a place for everyone in the folk and tribal dances. The dancers work together and support each other making dance space a safe, empowering and a fun filled one.

## SWAMI VIVEKANANDA-II

- Sri Challa Sivasankaram

The Raja of Kshetri was a steadfast wellwisher of the Swami. The Raja, endowed as he was with intuitive talent, could detect pronounced traces of Jagadguru in Narendra the legitimate heir of Sri Rama Krishna whose mantle already fell on Naren, replaced the name christened by his parents by Vivekananda the Swan of Bliss. It was 1893. Vivekananda embarked upon voyage to opulent America.

He was a spiritual athlete, religious Hercules who could pulverize the doctrines and dogmas that paralysed the dignity of man and heightened the importance of priest-craft. Dignity of man reigned supreme in the mind of the Swami as it had in the mind of Aristotle the direct disciple of Plato. It is unfair to call him a crusader. It was

a narrow term belittling his Himalayan self comprising the souls of all nations. He was a peerless patriot imbued with infinite fervour for freedom of mankind as a whole, it was not confined to narrow domestic walls.

It spread its mammoth wings far and wide, to the nook and corner of the universe to raze down the walls of segregation of one kind or another. The veteran national figure and level-headed statesman C Rajagopalachari ventilated "Swami Vivekananda saved Hinduism and India. But for him, we would have lost our religion and would not have gained our freedom. We, therefore owe everything to Vivekananda."

Bharat's lustrous contribution for the lasting bliss of the soul of the world community was first the Upanishad, second Sankara and last but not the least was Vivekananda. The upanisad was easily regarded as the mother of all principal Eastern religions in general and Buddhism in particular. Sri Krishna's Bhagavad Gita is the concentrated expression of the essence of the upanisads. Likewise the Buddhist Dharmapada which is by the considered claim of Linyutang far profounder than Gita, drew mostly from the sap of the upanisad. Linyutan was a Chinese savant and philosopher and translator of Dharmapada and a warm friend of India.

At the time of fragmentization of the Buddhist order there arose a star of stainless brilliance in Malabar on the holy banks of River Purna. He was Sankara the parent of the world's most scientific and widely followed system (philosophy) Adwaitha Vedanta. Buddha and Sankara made indelible impression on Vivekananda who was the author of the pithy phrase, 'Sankara's head and Buddha's heart' Vivekananda was the living epitome and sum total of the two. Swami Vivekananda was summum bonum of Brahmateja and Kshatravidya. He denounced

sophisticated heretics that condemned idolatry as the meanest and uncouth form of worship in his forthright manner. He believed in Bhakti-Jnana collocation theory and advocated the theory in emphatic language that was at his command. He suggests to devotees to get by rote the 12th chapter of Bhagawad Gita and assimilate its essence. It is called Bhaktiyoga. It is as sweet as the smile of Srikrishna and as inspiring as the fiery enterprise of Swami Vivekananda. The Swami advocated it as the sanest and surest path to attain the goal - liberation from the cycle of birth and death and finally absorption in Brahman i.e. self-realisation. His philosophy appealed to both the empiricist and the abstract vedantist. It was Unitarian, unfettered by national and religious limitations, and it was egalitarian, rational and above all it was based on the most advanced theory of oneness of spirit.... He was at once a rationalist, a visionary with universal perspective and a passionate campaigner whose synthesis of higher values, moral and temporal made him an avatar of a vibrant world order says Justice V.R. Krishna Iyer, former judge, Supreme Court of India and an occasional visitor to Sri Sathya Saibaba's abode. The Swami's innate trait of leaning towards vairagya (renunciation) and broad vision of a future that might bring in its train contentment whose logical sequel was naturally continence salvaged the ship of his life from being capsized in the high seas of the vicissitudes he passed through from the time of his father's demise and sudden eruption of bankruptcy. Conquest of Indriyas (sense organs) had been no uphill task for this otherworldly soul saturated with the noble essence of Upanisad that advocated Brahmacharya as the sole state that could catapult man from slave of senses to monarch of the realm of infinite freedom.

(to be continued)

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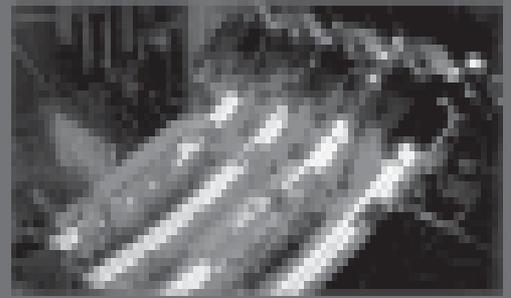
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