'Kalinga' Now : A Celestial Beacon

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Biju Patnaik had many arduous-but-realizable dreams tagging 'Kalinga'[1] to them, but had never dreamed of anything beyond earth to name it after. Now, the United Nations Educational, Scientific and Cultural Organisation (UNESCO) has stretched it from the terrestrial to celestial plane to acknowledge the contribution and spirit of the great soul and the visionary who instituted the Kalinga Prize in 1951. It named - a minor planet (i.e. an asteroid) no.26214 as 'Kalinga'[2] to mark the 50th anniversary of the institution of the much acclaimed Science Prize in 2001. The asteroid was discovered by a Czech astronomer Dr. Petr Pravec in 1997. And, a decade has been passed after that, and this year, we are observing its 60th anniversary.

By instituting the Prize through the Kalinga Foundation Trust, its founder president Biju Patnaik showed in an exemplary way how a 'statesman'[3] should remain well ahead of his contemporary times by 'seeing into the future'. He was aware of the mandate of the Indian Constitution which was then one year old. Biju knew that our Constitution sought a panacea for all ills in the Indian society mostly in the promotion of science. Article- 48 of our Constitution urges the State to endeavour to organise agriculture and animal husbandry on modern and scientific lines. Article-80 provides a sizable space in the Council of States (Rajya Sabha) for persons having special knowledge or practical experience in respect of Literature, Science, Art and Social service. And, the latent duty expected of every Indian citizen thought not mentioned in the original Constitution (now it forms a part of the Fundamental Duties under Article-51A) to develop the scientific temper, humanism and the spirit of inquiry and reform; and to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement. These articles give Constitutional credence to our adherence to science.

Biju realized that development of any sort, economic growth and the welfare of the people in general had been greatly influenced, directly or indirectly, by developments in science and technology. Being a champion of science and technology, he, therefore, 'believed in the modernization of society on a scientific basis. He established the Kalinga Foundation for dissemination of knowledge in science. He also founded the Kalinga Prize for promoting scientific knowledge. The idea behind setting up Kalinga Prize was that every one should have at least a basic understanding of science'[4]. Biju thus instituted this international prize as a symbolic gesture to fight poverty, conservatism, ignorance

and backwardness existing in the world in general and in Orissa (now Odisha) in particular.

Since 1952, the Kalinga Prize (renamed as UNESCO Kalinga Prize in 2009) -an internationally coveted award for the popularization of science has been given annually by UNESCO in coordination with the Kalinga Foundation Trust for the demonstration of exceptional skill in presenting scientific ideas to lay people. The recipient's talent in interpreting science and technology for the public that is useful in promoting public welfare, enriching the cultural heritage of nations, and solving problems facing humanity besides its upholding the international importance of science and technology is taken into consideration. Therefore, a Kalinga laureate may be a distinguished scientist, journalist, writer, editor, lecturer, radio/television programme director or film producer. The Prize is administered by the Science Analysis and Policies Division of UNESCO. Each member state (at present UNESCO has 193 member states and 6 associate members) is entitled to nominate a single candidate, through its National Commission for UNESCO. The laureate is selected by the Director-General of UNESCO upon the recommendation of a four-member Jury designated by him out of whom one member is appointed on the recommendation of Kalinga Foundation Trust. Till now the prize has been awarded to 66 people from 23 countries which include five Indians namely Jagjit Singh (1963), Narender K. Sehgal (1991), Jayant V. Narlikar(1996), Dorairajan Balasubramanian (1997) and Yash Pal(2009). The list of laureates too includes great personalities like Bertrand Russell and Julian Huxley and seven Nobel laureates. Dr. Rene Raul Drucker Colin of Mexico will be the next person to receive the prestigious UNESCO Kalinga Prize for the year 2011 for his contribution to popularise science among common men.

An effort for the popularization of science in India dates back to the days of Raja Ram Mohan Roy who came with an out-and-out support for rational and scientific education of western type. He held that such education was responsible for great developments in the western world. He was in favour of embracing Mathematics, Chemistry, Anatomy and other such sciences. He published some journals in different languages 'to spread literary, political and scientific knowledge among the people of India'[5]. Swami Vivekananda too advocated for a synthesis of the Indian spiritualism with that of the western materialism or science which would suit to the needs of Modern men. Gandhiji appreciated the use of technology with certain reservations. To him, it must not deprive a man of his livelihood in the name of development. Rabindra Nath Tagore[6] once told, "I am not a scientist, but from childhood my strong desire to enjoy the rasa of science knew no bounds... Although he was critical of technology dominating over man in some of his plays (Muktadhara, Raktakarabi), he readily embraced its beneficial effects. In Sriniketan, where the emphasis was on rural reconstruction, he introduced many technologies like weaving, carpentry, leather work and so on. In Personality (1917) he wrote: "Science is at the beginning of the invasion of the material world and there goes on a furious scramble for plunder. Often things look hideously materialistic, and shamelessly belie man's own nature. But the day will come when some of the great powers of nature will be at the beck and call of every individual, and at least the prime necessaries of life will be supplied to all with very little care and cost. To live will be as easy to man as to breathe, and his spirit will be free to create his own world." Partha Ghose further writes, "To Rabindranath scientific truths were not mere abstractions and formulas but concrete living truths that inspired him to write

great poems and compose wonderful songs. He assimilated and internalised the scientific spirit and weaved it into the very fabric of his philosophy and his artistic creations. So complete was the fusion that the songs and poems appear to stand by themselves as great artistic creations far removed from the world of science"[7]. Nehru was in favour of the use of science and technology for better production and development. He regarded dams and industries as the temples of modern India. He believed there was no alternative to industrialization in the modern world. He therefore, paid special attention for power generation and irrigation projects etc. Among the scientists who have popularized science in India include Sir Jagadish Chandra Bose, Prafulla Chandra Ray, Srinivasa Ramanujan, Sir Chandrasekhara Venkata Raman, Meghnad Saha, Satyendra Nath Bose, Shanti Swarup Bhatnagar, Homi Jehangir Bhabha, Subramaniam Chandrasekhar, Vikram Sarabhai, C. R. Rao, K. Chandrasekharan, Har Gobind Khorana, G. N. Ramachandran, Harish Chandra and M. K. Vainu Bapp etc. The list is not all inclusive as many are left deliberately keeping in view the time and circumstances under which they worked and earned achievements when little infrastructure and little support from the Government was available. Among the recent ones we can include the ex-President A.P.J. Abdul Kalam and Professor Yeshpal etc.

In case of Odisha the credit for popularizing science among common men must go to Samanta Chandra Sekhar. He remains till now as a house-hold name in the field of astronomical science in Odisha. His 'Siddhanta Darpan' which embodies his accurate astronomical calculations regarding the movement of planets surprises many as he did it being completely unaware of the scientific and technological developments in the West. He only used the traditional methods for astronomical measurements. Among the modern Odias the name of Madhusudan Das comes first to mind. He strongly supported the use of scientific and modern techniques of agriculture in Odisha to eliminate poverty from its soil. He established industrial units like 'Orissa Art Wares' and 'Utkal Tannery'. Among the persons who have popularized science in Odisha, the names of Professor Pranakrushna Parija till the recent ones like Gokulananda Mohapatra, Kulamani Samal and Rabindra Mohan Senapati etc. are noteworthy. However, with regard to the application of science into development outputs the credit and applauds in most part shall go to none other than Biju Patnaik. Saying all these, in the end, we must admit that none of our Odias has yet been qualified for the Prize even though it was instituted by an 'Odia'[8] long ago. That has made the Kalinga Foundation Trust to consider instituting a separate State Level Prize for Odias namely – 'Kalinga Samman' for Popularization of Science among the common People in the state from the Year 2010.

In the present world, science and technology have become indispensable. Science and technology is looked upon to provide the missing-link between poverty and prosperity. Science generates ideas, knowledge and information. It changes attitudes and creates new values. The march of science has enough potential to antidote the evils of superstition and irrational beliefs. Technology, which is the application part of the knowledge, has been instrumental in bringing socio-economic changes. The application of science has transformed our subsistence agriculture into commercial agriculture; it has revolutionized communication and commerce. Scientific knowledge are being utilised in health and in other socio-economic sectors. Science and technology have played a crucial role in disaster

management and disaster mitigation. With science and technology, we, in India have made commendable advance in space exploration, energy, industrialization, electronics and oceanography. It is due to science and technology we are now a leading economy in the world. However, the narrative reflects only one side of the reality. The gloomy part of it is that rural India does not make similar progress like that of the urban. The dichotomy between the two called 'Bharat-India' divide is looming large. Many are still in misery and thus remain below-poverty-line despite there has been a significant increase in our Gross Domestic Production and Per Capita Income. The boons of science are not reaching the impoverished and downtrodden. The perils of environmental degradation, pollution and climate change are so threatening that survival of humanity beyond a specific period remains a question to be addressed. The availability of safe drinking water given the shrinking ground water level has been a matter of concern. Therefore, there must be an interface between the researchers and policy makers on one hand and the rest of the society on the other. There must be a constructive use of science and technology for the better, sustainable and equitable management of resources which can lead to a genuine development of the country. It brings to mind an often quoted Gandhiji's talisman[9]: "Recall the face of the poorest and weakest man whom you may have seen and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to Swaraj for the hungry and spiritually starving millions". And, at this juncture, 'Kaling' as a beacon from the heaven may prevail upon the scientists and policy makers to use and utilize the divine blessings came through science to make life better on earth not its demonic barter for vested interests. Could this dream of 'Kalinga' be translated into reality by linking heaven to earth – future will tell!

Notes and References:

1. Ghadai, Balabhadra(2008), "Biju Patnaik, the son of the soil", *Orissa Review*, February - March P.35. He has mentioned that "The name of Kalinga was so dear to the heart of Biju Babu that he set up Kalinga tubes, Kalinga Airways, Kalinga Iron work, Kalinga Refractories and the Kalinga, a daily Oriya Newspaper. In 1951 he established the international Kalinga prize for popularisation of Science and Technology among the people and entrusted the responsibility to the UNESCO.
2. See the letter of the Senior Programme Specialist-Science in the Office of the UNESCO representatives to Bhutan, India, Maldives and Sri Lanka written to the Managing Trustee Kalinga Foundation Trust , Anand Bhawan, Cuttack vide Letter no DIR-jk/Kalinga/08-01 Dated 4.10.2001.
3. Prochnow, Herbert V.(1949), "*The Toastmaster's Handbook*", New York: Prentice-Hall, p. 264. It has quoted Edmund Burke's observation on statesman that, 'the great difference between the real statesman and the pretender is that the one sees into the future, while the other regards only the present; the one lives by the day, and acts on expediency; the other acts on enduring principles and for immortality.
4. Rout, B.C.(2005), " Biju Patnaik: A tribute", *Orissa Review*, March, P.2.
5. Nayak, G.C. (2004), "Indian Political Traditions", New Delhi: Kalyani, p.55.
6. Ghose, Parth(2011), 'Man of Science', *Frontline,* Vol. 28, No. 27, 31 December – 13 January, 2012.
7. Ibid.
8. See the *Constitution (Nine sixth Amendment) Act, 2011* which has substituted Odia for Oriya in the seventh Schedule of the Constitution of India w.e.f. 23.10.2011.
9. Anand, Mulk Raj(ed.)(1988), "*The living thoughts of Mahatma Gandhi*", New Delhi: National Council of Educational Research and Training, p.XII.

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