

Homi Bhabha, a visionary scientist and a great human being

When technician Narasimha Murthy, a glass blower in the Department of Atomic Energy (DAE), developed a major heart problem, its then chairman Homi Bhabha arranged to fly him to the United States to receive medical care - all at government expense.

And when Bhabha saw a gardener in the DAE's Trombay campus walking with a limp, he stopped his car, gave him a lift, and instructed his staff that he was to be looked after.

A collection of reminiscences by Bhabha's close associates brought out by the Indian Physics Association (IPA) on his birth centenary year shows that the father of India's atomic energy programme was not just a visionary scientist and an institution builder but also a great human being.

'Examples of sensitive and human approach in his dealing with even the lowest paid employees are numerous,' said Vasudeva Iya, who was in charge of DAE's isotope programme and one of Bhabha's hand-picked scientists.

Padmanaba Krishnagopala Iyengar, who later became DAE secretary, agreed with Iya. When DAE administrators, citing service rules, denied travel money for a junior scientist to present a paper at a conference abroad, Bhabha admonished the bureaucrats and reversed the decision, recollected Iyengar, who knew Bhabha from 1953 till his tragic death.

Bhabha died on Jan 24, 1966, in an air crash while he was on his way to attend an International Atomic Energy Agency (IAEA) meeting in Vienna. The cause of the crash remains a mystery.

'If he had not perished in the air crash, we would have quite a different India today,' said Devendra Lal, a renowned geophysicist who rejected a faculty job in the US to join Bhabha's team in 1960.

In a way, World War II was responsible for the strides India has made today in the field of atomic energy. Bhabha, who came to India on a brief holiday in 1939, could not return to England as war had broken out. So he decided to stay back in India till the war was over.

'That decision turned out to be a turning point not only in the academic career of Bhabha but also for the advancement Indian science and technology in the post independence era,' writes Badanaval Venkata Sreekantan, a cosmic ray physicist who joined Bhabha in 1948.

Bhabha's five-year stint from 1939 at the Indian Institute of Science here changed his plans to return to Britain.

'I have come to the view that provided proper appreciation and financial support are forthcoming, it is one's duty to stay in one's own country and build up schools comparable with those that other countries are fortunate in possessing,' Bhabha wrote in his famous March 12, 1944, letter to the Tata Trust for funds to start a new institute.

From then on, Bhabha passionately took on the task to transform Indian science, says Lal.

'Bhabha sacrificed his personal scientific career to spend most of his time to grow science and technology in India,' Lal said. 'Bhabha's stamp is visible everywhere.... He realised most of what he

dreamed between 1939 and 1965 but was not alive to watch them grow.'

He set up the Tata Institute of Fundamental Research (TIFR) with support from the Tatas, and convinced then prime minister Jawaharlal Nehru to create the DAE, both of which he managed admirably till his death.

The Tata memorial centre in Bombay (now Mumbai), the radio astronomy centre in Ooty and the training school in Bombay were all due to his farsightedness, says Malur Ramaswamy Srinivasan, Bhabha's close associate and former DAE secretary.

Bhabha was also largely responsible for the introduction of the space programme through the setting up of the Indian national committee for space research under the chairmanship of Vikram Sarabhai, said Srinivasan.

Former DAE physicist Ganesan Venkartaraman says that being a visionary, Bhabha promoted everything from computers to vacuum technology, ignoring criticism from 'some narrow minded scientists' who questioned the propriety of DAE wanting to do everything.

Renowned geneticist Obaid Siddiqui recalls that although the 1962 Indo-China war had broken out and emergency economic measures had been announced, Bhabha encouraged him to start the molecular biology programme at TIFR using the money the institute saved from expenses on water and electricity. That programme has now evolved into full-fledged National Centre for Biological Sciences in Bangalore.

Bhabha's style of management was another thing that endeared him to scientists. 'He did not believe in micromanagement. He selected able persons to lead and left them alone,' said Lal.

One advice of Bhabha that Lal cherishes most: 'Never give an important task to one who has nothing to do. Give it to a busy person who will find time to do it.'

'Bhabha freed DAE from bureaucracy while scientists outside DAE are still fighting this battle to be freed from stifling bureaucratic controls,' said Venkataraman.

'Goku' (M.G.K) Menon vividly recalls his last meeting with Bhabha 'to talk about some important matters' a day before his tragic death.

The important matter was that Indira Gandhi - selected to become prime minister only four days earlier - had asked Bhabha to be ready to move to Delhi 'to assist her in all matters related to science and technology' with a rank equivalent to a cabinet minister.

Before embarking on his fateful journey to Vienna, Bhabha told Menon that on his return, he planned to propose Menon to be director of TIFR. 'Everyone thought I got the responsibility because of his death,' Menon wrote, adding this was not the case. 'Had he returned from his trip to Vienna he would have anointed me his successor as director of TIFR.'

Bhabha's widely quoted remark 'no power is as expensive as no power' at the third UN conference on peaceful uses of atomic energy in Geneva in September 1964 registered with many from underdeveloped countries aspiring to tame nuclear energy.

'Icons like Bhabha appear only rarely,' said Bikash Sinha, director of DAE's cyclotron project in Kolkata. Nobel Laureate Chandrasekhar Venkataraman described Bhabha as the modern equivalent of Leonardo da Vinci.

Bhabha was so concerned about his scientists that he did not want them to travel abroad in the same flight since, 'in case the plane crashed, it would be a big loss to TIFR', says Lal.

'Ironically, and very sadly, we lost him in a plane crash.'

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