

# Ramanna & the nuclear programme

By M.R. Srinivasan

**R**AJA RAMANNA and I met for the first time in early 1956, when I returned to India, after joining the Department of Atomic Energy in September 1955, in London. By a coincidence we lived in the same block of apartments in Colaba, close to the Gateway of India. We both belonged to a small sub-group of the Mysore Iyengar community speaking a highly Kannadaised Tamil. We were among a small group of young scientists and engineers selected by Homi Bhabha. We worked on building the Apsara reactor, India's first nuclear research reactor. Ramanna went on to build a strong research group in nuclear physics while I embarked on the construction of India's first nuclear power station at Tarapur.

After Homi Bhabha's untimely death in an air crash in January 1966, Vikram Sarabhai was appointed Chairman, Atomic Energy Commission. It coincided with the time when the United States and the United Kingdom were pressuring other countries to join the Nuclear Non-Proliferation Treaty. Sarabhai was new to the intricacies of nuclear policy and L.K. Jha, Secretary to Prime Minister Lal Bahadur Shastri and later Adviser to Indira Gandhi, appeared to be weighing India's gains and losses from joining the NPT.

At that crucial time, Homi Sethna and Ramanna worked closely with P.N. Haksar, who had become the Prime Minister's Secretary and G. Parthasarathy. So the policy decision

taken by Indira Gandhi emerged that India would not join the NPT, no matter what the blandishments were.

While the avowed policy of India was to use nuclear energy for peaceful purposes, the Chinese nuclear weapon test of 1964 posed a major security dilemma for India. The situation was greatly compounded given the reverses suffered by India in the border war with China in 1962. A

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plant for extracting plutonium from irradiated nuclear fuel, built under the leadership of Sethna at Trombay, had been commissioned in 1964.

Due to the changes in leadership at Delhi and Bombay and the pressure applied by the U.S. and the U.K., uncertainty prevailed for some years about India demonstrating its nuclear capability. These were set at rest in 1974 when India carried out the Pokhran-I test under the leadership of Sethna and Ramanna.

Ramanna was convinced that India's geo-strategic interest could be secured only by India becoming a nuclear weapon power. During the period when Ramanna was Chairman of the Atomic Energy Commission (1983 to 1987), this question

engaged his attention, especially after his stint as Scientific Adviser to the Defence Minister (1977 to 1980). An impediment to going nuclear was the feeling in Delhi that the economic sanctions the West would impose on India might become unbearable. In the mean time evidence from Pakistan, increasing day by day, indicated that it was making rapid progress in the enrichment of uranium and that China was extending

substantial support to Pakistan going nuclear. By the end of the 1980s it became evident that Pakistan had a few nuclear weapons in its basement. India's response was to continue the policy of ambivalence but with a high degree of preparedness. While Ramanna retired from the AEC early in 1987, he had made sure that his principal associates had moved ahead substantially on the weaponisation programme.

Given the progress made on nuclear weapons by Pakistan, India had to respond beyond routinely telling the country that its security would be ensured under all circumstances. By the mid-1990s, Prime Minister Narasimha Rao reportedly gave clearance to carry out a weapons test and prep-

arations began. However, the U.S. pressure on Mr. Rao resulted in his countermanding the earlier approval. It is to the credit of Prime Minister Atal Behari Vajpayee that he took the firm decision to go ahead with the Pokhran-II tests of May 1998. The Indian economy had in the meantime grown robust enough to withstand the economic sanction that the U.S. and its allies imposed on India.

Contrary to the fears in some sections of Indian opinion, relations with the U.S. actually improved after India became overtly nuclear. Also nuclear weaponisation in India followed Pakistan acquiring nuclear weapon capability. India, with a nuclear arsenal, even if limited, is better able to support universal nuclear disarmament, which continues to be India's goal.

The legacy of Ramanna is that over a half century of his association with the atomic energy programme, he helped build up a large pool of scientists and technologists who could take on new and challenging problems in nuclear science and technology to address the country's needs of energy and national security. Homi Bhabha had foreseen in 1944 that when the time came for applying nuclear science and technology for national progress, it would find the experts needed for the purpose in India. Raja Ramanna exemplifies in full measure the realisation of that dream.

*(The writer is a former Chairman of the Atomic Energy Commission.)*