## Syed Zahoor Qasim (1926–2015)

Syed Zahoor Qasim, 88, passed away on 20 October 2015 at his residence in New Delhi. He leaves behind his wife Nawabzadi Begum Sahiba Rampur and three daughters.

Qasim was born on 31 December 1926 in Allahabad. He studied at Majidia Islamia Intermediate College, Allahabad, and then at Aligarh Muslim University, where he obtained a B Sc degree in 1949. In 1951 he stood first in M Sc (Zoology) from the same university and was awarded the University Gold Medal. During the next couple of years he was a lecturer in the Department of Zoology at Aligarh. He proceeded to United Kingdom for higher studies in 1953. In 1956 he completed his D Sc and Ph D degrees from the University College of North Wales, UK. After returning to India he served as Lecturer (1956) and Reader (1957) in the Department of Zoology, Aligarh Muslim University. He then occupied a number of increasingly important positions in education and research institutions of the country: Professor, Central Institute of Fishery Education, Mumbai (1962); Assistant Director, International Indian Ocean Expedition, Kochi (1964); Director, Central Marine Fisheries Research Institute, Kochi (1970); additional charge of Director, Central Institute of Fisheries Technology (1973); Director, National Institute of Oceanography (NIO), Goa

At these institutions he made pioneering contributions in a number of areas including marine biology, fishery and oceanography of the waters around India. He was also associated with demonstration of potential for aquaculture in the country, and promotion of technology for cultured pearls. Qasim's own work and his support to others at these institutions earned him the reputation as a progressive leader of science, ever willing to help productive researchers, particularly the young ones. The institutions he led saw significant development of infrastructure to conduct research.

NIO acquired its first research vessel, a basic requirement of any oceanographic institution, during Qasim's tenure (1974–81) as Director. *RV Gaveshani* joined the institute in 1977. NIO also saw launching of long-term programmes of research. The most important of these,

initiated by Qasim with his close associate, H. N. Siddiquie, aimed at exploration of deep sea polymetallic nodules in the Indian Ocean. Qasim led the first expedition under the programme on board *RV Gaveshani*. The programme was completed successfully for India to claim rights of a pioneer country for mining of nodules (rich in iron, manganese, copper, nickel and cobalt) in the Central Indian Ocean.

The programme had another beneficial impact. Well funded, the programme sustained multidisciplinary research – biology, chemistry, geology and physics – of the North Indian Ocean during almost three decades. It helped NIO to



get an identity as an oceanographic institution dedicated to the study of oceanography of the North Indian Ocean. This basin experiences the winds and precipitation associated with the annual cycle of the monsoon and exhibits features that are strikingly different from those in the North Atlantic and the North Pacific that experience the steady trades. There was now, for the first time, a capable institution located close to the basin to study it.

In 1981 Qasim moved from Goa to New Delhi to serve as Secretary, Ministry of Environment, Forest and Wildlife (1981–82), where he led India's first expedition to the Antarctica. It initiated research of an entirely new genre, study of the icy polar continent of Antarctica, by researchers from India, a tropical country. The media in India covered the expedition widely to a favourable response from the country. Antarctica had caught the imagination of the country.

Growth of any research supported by public funds requires a public figure as its champion. Homi Bhabha was the champion of atomic energy in India and Vikram Sarabhai of space research. Qasim became the champion of Antarctic research in the country. He had the clout and proven performance as institution builder to garner the support required to launch and nurture a new field in the country.

In the process he again helped the growth of research in oceanography of the North Indian Ocean. The Antarctic Expedition had been launched from NIO. Hence the attention garnered by the expedition got associated with the institute. The attention helped the growth of the institution. By the turn of the century it could justifiably claim to be the largest oceanographic institution in this part of the world.

An important instrument in Qasim's hand to support such growth, both of Antarctic research and of oceanography of the North Indian Ocean, was the Department of Ocean Development (DOD), Government of India (which subsequently became a part of Ministry of Earth Sciences). Qasim became DOD's founding Secretary in 1982 and served there till 1988.

Five decades ago the global oceanographic community launched the International Indian Ocean Expedition (IIOE) whose most intense phase was during 1962-1965. The expedition was one of the largest international, interdisciplinary oceanographic research efforts ever conducted in which 40 oceanographic research vessels belonging to 13 countries surveyed the Indian Ocean and collected data that provided the first comprehensive look at oceanography of the ocean. India, though its infrastructure to conduct oceanographic research was hardly inexistence then, became an enthusiastic partner in the expedition. Some of its naval vessels and a good number of budding oceanographers became a part of the expedition. On its completion, the Government of India decided to keep this group together to continue what they had worked on during the expedition. Thus was founded NIO in Goa, which had joined the Indian union in 1961 following departure of the Portuguese. It is said that one of the last documents approved by Pandit Jawaharlal Nehru as Prime Minister was related to founding of the institute as a constituent laboratory of the Council of Scientific and Industrial Research (CSIR).

Oceanography is an expensive science. It needs ships; instruments that can survive over a period of months or even years exposure to saline waters and harsh weather; laboratories with sophisticated equipment, etc. The field can grow only if there is a champion who can garner sufficient public support - funds, manpower, visibility, etc. Qasim played this role actively from mid-1970s, when he began his tenure as Director, NIO, till late 1980s, when he retired from his position as Secretary of DoD. Launch of the Antarctic expedition, with the national attention that it attracted, enhanced his prestige. This, in turn, helped both oceanography and Antarctic studies. The community of the country dealing with these two fields shall always remain thankful to him for this seminal service to his chosen fields.

Following his tenure at DoD, Qasim served as Vice-Chancellor of Jamia Milia Islamia Central University during 1989–

1991 and as Member, Planning Commission during 1991–1996. After leaving the Planning Commission he continued his association with science institutions in the country and abroad. He kept himself occupied writing, lecturing and interacting with institutions dedicated to the fields of his interest.

Qasim's work brought him many laurels. He was awarded Padma Shri (1974), Rafi Ahmed Kidwai Award (1978), Lal Bahadur Shastri Award (1988), Padma Bhushan (1982), Oceanology International Lifetime Achievement Award, UK (1999), First National Ocean Science and Technology Award by Government of India (2003-04), Asian Society Gold Medal (2005), SOFTI Biennial Award (2007), Lifetime Achievement Award, Indian Science Congress (2008). He was elected to all the three national science academies of the country and to The World Academy of Sciences. He was President, National Academy of Sciences, India (1983-84) and General President, Indian Science Congress (1992–93).

Qasim had a gregarious personality. He enjoyed the company of his associates, students, and members of the staff of the institutions he had been a part of, the mighty as well as not so mighty. Often after a gap of decades, he could remember the names of the people he had worked with. He enjoyed talking to them, recalling the past, sharing a joke, and partying with them. That is what made him not only approachable, but also likeable as a brotherly and fatherly figure. People went to him with full confidence that they would get a careful hearing and help whenever possible.

Qasim's passing away leaves the fields he touched poorer. In his departure the Earth Science community in India in general, and the community of oceanographers and polar researchers in particular, have lost the most important champion of their cause during the last half a century. Another like him may not come along soon.

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