

Epilogue

The 50 years saga of the Department of Atomic Energy, is in many forms symbolic of the country's scientific and technological capabilities. The success over the last five decades by DAE is but a mere foundation and reminders for the towering milestones to be reached in the coming years. The potential to raise to international competence in sophisticated and strategic technologies, despite constraints in technological cooperation from advanced countries in many scientific areas, is a hallmark achievement of independent India. There is no doubt that India will rank high amongst the select few countries having comprehensive expertise over the entire nuclear fuel cycle in several varieties of reactors in the coming decades.

In order to speed up the challenging tasks in our indigenous nuclear energy programme, a conscious effort has been made over the decades to ensure synergism of expertise and facilities in DAE with Indian academia and research institutes. Human resource development has been a credible management philosophy of DAE since its inception, both in terms of enhancing research capabilities of academic institutions as well as by providing opportunities for students to be trained in state-of-art and unique facilities available in various research centres of DAE. Partnering with industry in technology developmental programmes has been yet another unique feature of DAE and has resulted in many creditable achievements both for DAE as well as to the partnering industries. The stringent quality demands for nuclear components has been a key driver to resource, skill and machinery enhancement of many industries. These aspects have been illustrated in the volume. The spin-offs from the development of advanced technologies for DAE have been significant in terms of providing several non-nuclear products for societal use.

I am confident that the volume would have served its primary purpose of providing a scientific feast to the inquisitive

Looking into the future

“R&D endeavour by DAE scientists and engineers over the last five decades has put India firmly on the global map as a self-empowered nation that has harnessed nuclear science and technology for the benefit of her people. We are now well poised for a further take off from this elevated capability platform to explore the uncharted territory of new technology domains with much higher potential benefits for our people.

While roadmaps to convert several ideas into technologies in areas like energy, food, health, water and environment have been chalked out, we should now also be more ambitious and explore new ideas and their conversion to technologies through more effective domestic research-technology development links. Fortunately the framework available is in fact very conducive for us to proceed further.

I am certain that we would, on the basis of our confidence, commitment, traditions and value systems live up to this expectation and fulfill the dreams of our founders.”

Anil Kakodkar
Chairman
Atomic Energy Commission

minds. The purpose of the volume is also to highlight the technological challenges that have been met by the mission oriented approach of the Department and the benefits that have accrued to the society through its high technological areas of research.