An uncertain future

Support for science, both financial and otherwise, is diminishing in India as government’s perceptions about the role of the science and technology enterprise in future development, appear to have changed rather rapidly. Higher education in science is threatened by the prospect of institutions having to raise funds from private sources to meet essential running expenses, even as government slowly abdicates its responsibilities in this area. Research departments and institutions can hardly compete for private resources, with management and marketing institutes and colleges and universities distributing engineering and medical degrees. The heady days of enthusiastic government support for science appear to be over. Unfortunately, the rationale for cutting policies is often obscure, although budgetary compulsions are always blamed for across the board, non-discriminatory cuts in all areas of governmental expenditure. The uncertainties of the new year, which coincides with the start of a new Five-Year Plan, put together by a disparate coalition of interests, cast a long shadow on the future of scientific institutions in this country. While the defence science, space and atomic energy establishments will undoubtedly come through unscathed because of their perceived strategic importance, the rest of India’s science institutions face difficult times ahead.

In most places, frozen budgets over the last few years have seen an ever increasing proportion of the allocated funds (in some cases as high as 90%) going towards payment of staff salaries and allowances, leaving little or no institutional support for research activities. Individual researchers survive largely on sponsored projects, which are of course easier to obtain and operate in a relatively small number of high profile institutions. Even here the decline is clearly visible. Projects submitted to government agencies lie for increasing lengths of time, unattended. Even more depressingly, release of funds for sanctioned projects proceeds at a glacial pace. The ever present battle for turf, an enchanting pastime for bureaucrats in Delhi, appears to have tilted against the managers of the science departments. Procedural delays are now the rule rather than the exception. Ironically, liberalization is a word that seems absent in the lexicon of bureaucracy, both in Delhi and inside our institutions. The pity is that by slowing the process of procurement of equipment, materials and staff appointments, most projects eventually end up costing more. In recent times, there has been much comment about the gradual aging of the scientific work force. Limited recruitments over several years have resulted in a graying of our laboratories. What appears to have passed unnoticed is that aging is a phenomenon that has also caught up with the middle level management of our science ministries.

Funding and encouragement for science may be at a low ebb, but it is also true that many of our agencies and laboratories are largely devoid of good ideas. Collective enthusiasm, which facilitates problem solving, is conspicuous by its absence. Innovation is rare and hardly encouraged by an unresponsive and conservative environment. The scientific establishment today suffers from poor public relations; an inability to enhance the public (and political) perception of what science in India has achieved and even more importantly the crucial contributions that it will make in the future. The herbal petrol fiasco highlighted dramatically the public craving for quick, magical fixes to mounting problems. The faith in conventional science obviously, does not run too deep.

Most non-performing wings of government get a far larger share of the public cake than the science departments. Scientific institutions most often struggle with limited budgets and unrealistic expectations of what can be achieved. Science, technology and higher education need a broad based lobby, which will prevent skewed priorities and ill thought out development strategies from cutting at the roots of our scientific and technological development. It is also clear that scientific institutions must devise mechanisms to shed some fat. Leaner and fitter organizations are more likely to cope successfully with an uncertain future.

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