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Editorial

Funding basic science

The new budget has been presented, the waves created by the nuclear explosions and counter explosions are subsiding into ripples (worries about sanctions having given way to concerns about visa denials), making the moment right for reflections on the state of funding for science in India. Increased budgets for 'strategic research', the absence of any new, major initiative for academic science and the complete identification, in the media and in political circles, of science with the activities of the defence, atomic energy and space establishments do not augur well for the future of basic science in universities and research institutions.

The concerns of individual scientists are often apparently very mundane, with worries about finances being primary. The task of keeping laboratories running in universities and research institutions, in an era of diminishing budgets and increasing costs, is daunting. Ironically, this process is being made even more difficult by the very government agencies, which are charged with the responsibility of promoting scientific research, on a broad platform across the country.

Individual investigator generated projects move through a labyrinthine process in Delhi, at a glacial pace. The decision-making process ('peer review') in most committees is not rate limiting, but every 'approved project' must negotiate a minefield of financial bureaucracy before investigators and their institutions finally receive the funds. Unfortunately, in most institutions, investigators face many internal obstacles in utilizing funds obtained with difficulty. The tyranny of capricious finance departments is something against which all but the politically powerful scientists are largely helpless.

There are, however, many issues at the front end of the funding process which may be addressable. Following Parkinson, committees spend disproportionate amounts of time debating the virtues (or otherwise) of

minor projects, with the time spent often being inversely related to the money doled out. The large programmes to build new institutions, curiously, face the least stringent review. Even more disturbing is the appearance of an increasing number of 'politically correct' projects, which cannot but be funded, despite a woefully limited base of science. Can anyone say that they will not support projects that aim to develop vaccines against every known disease or that they balk at spending money on the development of new strains of crops that will resist every known pathogen and survive both floods and drought? 'Infrastructure', a once widely used word, has become unpopular with our science planners and financial managers, who control the purse strings of government. It is therefore difficult for institutions to obtain funds for upgradation and replacement of major research facilities; compelling many to resort to the subterfuge of camouflaging their essential requirements into 'mission mode' projects, which promise much but often deliver little. Sometimes research projects, multi-institutional and multi-investigator, are initiated at the instance of funding agencies, which organize 'brain storming' sessions in an effort to direct researchers to enter areas of specific relevance to local needs. Frequently, these areas, particularly in the field of biomedical research, have been investigated unsuccessfully abroad. The fond hope here is that we will succeed where others have failed. To borrow a pithy phrase, this approach often leads to 'indigenization of failure'. The funding mechanisms that support basic science in India urgently need some visible new initiatives which will restore and transform decaying and 'dying' laboratories in academic institutions. 'Strategic science' cannot be practised in isolation by a few laboratories sheltered within the cocoon of the defence and atomic energy networks.

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