

social sustainability in India. A holistic science and policy suggested here is a step in that direction.

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## Promoting science in India

This is with reference to the three letters by Animesh Chaturvedi, Pushp Deep Pandey and Mohan Karuppaiyil respectively (*Curr. Sci.*, 2002, **83**, 103–107). These letters are thought-provoking, emphasizing the steps to be taken to improve science education in India. As a first step, it should be made mandatory that only students who have cleared the national level exams like UGC/CSIR, NET, SLET and GATE will be allowed to join the Ph D programme. This filters off those candidates who join Ph D just to engage themselves in some activity. Candidates admitted both at the national institutes and universities should be provided with a good fellowship and accommodation. Psychological test, as suggested by Chaturvedi (p. 103) combined with a strict eligibility as suggested above will definitely present the best candidates for scientific research. The opportunities and channels for a scientific career shall be made clear to the students at the postgraduation level itself.

For the last many years universities are reeling under a financial crunch to carry out scientific research and hence they introduced self-financing courses. Are the universities improving the syllabi, teaching and research with the money they generate? Or is it being used for the general university expenditure?

The salaries of the faculty and the basic expenditure of the departments are borne by UGC. Then, where does this money go? It should be made mandatory that the money generated by introducing self-financing courses be made available only to that particular department which generates the money, to improve its facilities. If there is no improvement in the quality of education imparted for the paying students, then there will be no takers in the long run. Let universities be the centres for teaching excellence. Research in the universities must be confined to faculty who can generate their own money through grants. Those who cannot get grants can at least take up full-time teaching instead of running away from both teaching and research and blaming the university for non-availability of funds. In most of the universities, faculty are given a contingency grant every year to run a lab, which is generally not sufficient. Hence, orientation courses for young faculty about the possible sources of funds should be conducted periodically. To avoid all this, I would like to make a suggestion, which may not please everyone – make universities as centres for high-quality teaching and national laboratories as centres for research. Neither of them will do both teaching and research at the same point of time.

Universities nowadays recognize private institutions for postgraduation courses in science. This should be discouraged. The quality and basic values should be preserved. A candidate who joins the university after clearing the entrance exam is given the same degree as a candidate who studies in a private institution. This is not fair. Let universities alone confer the postgraduate degrees and thus preserve their value. We need postgraduates of quality and not in quantity.

Another aspect is the lack of appreciation of importance of research in the general public. For them, scientific research is just another job; they do not know what researchers do. Efforts should be made to popularize the fact that research is the basis for all inventions and even necessities, as in medicine.

Urgent steps are to be initiated to stimulate the young minds to opt for science as a career, to see a definite role for India in world science.

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