

University education in India

The report published in *Current Science* (1995, 68, 255–267) on University Education in India, issued by the Indian Academy of Sciences notes, *inter alia*

'... the general view is that standards in all respects have declined rapidly and alarmingly, and unless something is done soon to remedy the situation the country is definitely heading for disaster.'

Twenty-two years ago, on 23–24 February 1973, the erstwhile National Committee on Science and Technology (NCST) organized at the Bhabha Atomic Research Centre (BARC), Bombay, the second of a series of regional seminars on 'An Approach to the Science and Technology Plan', a document brought out by the NCST in January that year. Apart from the Approach, a detailed draft plan of the NCST on 'Education and Scientific Research' was also discussed. The following quote from the summary of seminar discussions on that draft plan transcribed by BARC in March 1973, makes interesting reading.

'There has been a proliferation of colleges and universities, inadequately equipped and staffed, and this has led to an alarming decline in standards of education. If the problem is not tackled at once, we may face a really difficult situation in the near future. A radical suggestion that was made was that universities should stop the award of degrees: and the job prospects of an individual should be decoupled from degrees. In that case, only the interested students would go to the universities and this will help improve their standards. Various implications of this proposal will have to be worked out'.

Many readers of *Current Science* who are in their late thirties may sardonically note from para III(a) of the record of discussions that they are the products of the 'proliferation' of colleges and universities inadequately equipped and staffed, (leading to) an alarming decline in standards of education. And further that they

emerged not too scathed from a concern suggesting that: 'If the problem is not tackled at once, we may face a really difficult situation in the near future.' Like the bumble-bee which is supposed to be unaware that it is aerodynamically not qualified to fly, the products of that 'alarming' situation of 20-plus years ago are the ones whose scientific effort populates the hard-core pages of *Current Science*. This is not to suggest that there is not a qualitative difference between the then 'alarm' and the current one expressed by the Academy, but that difference is not readily apparent.

Readers will recognize (again sardonically?) that the proposal for a National Science University (*Current Science*, 1994, 67, 503–508) has an impeccable pedigree as revealed in para III(g) of the 1973 discussion that appears below (without, of course, the non-responsible Indian (NRI) element):

'The draft plan proposes two models for few Universities. These models seemed to be based on IIT's with about Rs 40 crores indicated for 3 or 5 such 'National Science Institute/Universities'. Various questions were raised in this connection [such as]:

- i) One may tend to overemphasize the role of IIT-type institutions. IIT's have given better results on the whole than usual Universities, because of a selection of both students and faculty on an all-India basis, by and large on considerations of merit; and because they had a more substantial funding. Would these new Science Universities be selective in their admissions? If so, what is the strength of the collegiate level student body they will train?
- ii) Is one trying to bypass the present University education system by creation of the National Science Institutes/Universities? What impact would their creation have on the rest of the University system?

The Academy paper says further: 'the important question is whether there is a

way that would promote social justice and at the same time preserve academic values. One promising way is to reorient our thinking so that we would be able to view the whole issue as one of equity and excellence rather than one of equity versus excellence'.

It is instructive to juxtapose this view and that of Dr Ramanna, expressed in his welcome address at the 1973 BARC seminar, an extract from which is reproduced below:

'We must also recognize that planning for science cannot be an entirely democratic process. By consulting more people you do not necessarily get better ideas. At some stage the plans and programmes will have to be frozen, allowing for several decisions to be arrived at on the basis of pure intuition, for which we have to depend on some chosen people. It is in the nature of things that in organizing scientific research some will have to be leaders and others, disciplined followers.'

'The Hon. Minister (Shri C. Subramaniam) at the very successful first seminar at Kanpur made a special reference to the importance of bringing science to the masses to dispel the fatalistic attitude that seems to have unfortunately permeated into our entire society. In this, I presume, the Hon. Minister referred to the use of common sense based on the elementary principles of science so that the weaker sections of our society can help themselves out from the misery of their daily existence. The more sophisticated aspects of science are not for the masses. I would not attempt to teach Sanskrit to everybody. We have, therefore, to differentiate clearly between the development of science and technology in the country and the application of the scientific methods in solving the problems of rural areas'.

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