

scientific culture in Great Britain. In the same issue D. B. Deb (pp 427-431) proposes an admirable scheme for imparting education of quality in science in India.

In the face of such stimulating concepts being provided to us by far sighted experts, current attitudes and failure to provide information to the

public stand out as anachronistic and retrogressive. No scientific agency or group has provided, from day one, consistent briefing to any of the media, narrated facts as they emerged or provided logical suggestions for action.

If we cannot provide such vital information on a disease that struck terror in so many, can we, ever, hope to

achieve the ideals enunciated by Drs Day and Deb?

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## Optimal utilization of young researchers' potential

Ph D's in our country are a by-product of scientific researches. In the liberalized economy based on the concept of free market forces of pulls and pushes, the young researchers are not a saleable commodity in the 'internal market'. However, some are exportable and are sold in the Western market. In fact, how the Americans and the Europeans recognize the worth of a commodity not saleable in India is neither a trade secret nor requires any intelligent analysis to understand. The simple fact is that they know how to utilize these human resources and we do not.

### The problems of choice

The choice of relevant problems for research is the first step towards utilization of young researchers' potential. The isolation of research managers from the numerous practical problems in industry, agriculture and medical field is the primary reason for their incapability to assign research topics of utilitarian value. As a result, scientific researches in our country are not productive in terms of developing desired knowledge, processes or products, and the scientists cannot live up to the expectation of the society. Of course, there are certain exceptions to this observation. The spectacular success demonstrated by the scientists working in the fields of space, atomic energy and the defence-related products is praiseworthy.

The basic researches (which are supposedly done in keeping a long-range goal in view) done in our country are not so basic. The problems chosen are an extension of the work done by the scientists while working abroad. This type of researches may have good value in developing insight into natural phenomena but lose vitality owing to the long gestation period, the primary factors being the constraints of obtaining chemicals, equipment and even knowledge (in terms of books, journals and borrowing expertise), which have to be imported from the developed countries for implementing such projects. Consequently, in the rat race for publication of research findings, our good scientists lose.

### Human factor

The problems of funding, instrumentation and other infrastructural aspects are generally discussed for their impeding effects on doing good research. But work ethics and work culture are never debated. A young researcher possessing the necessary aptitude and motivation (and if lucky enough to get better research facility) cannot even be productive to the extent desired owing to the lack of a conducive work environment. The staff (non-researcher but part of the research system), whose jobs are dispensable but secured, do feel a little about the time-bound project of a research scholar. Since they have an upper hand at the

official level, they move at their own speed, ignoring the exigencies of research. Our universities are a glorious place in this regard. Universities in the recent years are not centres for creativity and absorption and diffusion of knowledge but have come to stay as a centre for self-serving, unproductive non-academic staff. The poor research scholars constituting a minority group even lack the fundamental rights in this democratic institutional set-up.

### Beyond 2000 AD

Our country is amidst several economic problems, which would be multiplied beyond 2000 AD owing to the geometric rise of human population. Invention, innovation and commercialization of scientific knowledge would be a vital force in improving industrial and agricultural productivity and in tackling disease-causing mortality and morbidity. Planning for proper utilization of scientific manpower should be accorded highest priority, because these people would play a key role in creation, adoption and assimilation of new technologies and help our country to face the grim situation ahead.

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