

## Role of higher education in the Third World

David E. Bloom and Henry Rosovsky from USA (*Curr. Sci.*, 2001, **81**, 252–256) have highlighted the role of higher education in the future development of Third World countries, including India. The Task Force on Higher Education and Society (TFHE) kept three inter-linking factors in view: first, the burgeoning demand for higher education; second, the growing importance of knowledge in the modern world and third, the impact of globalization. TFHE has brought out the strengths and weaknesses of the higher education system in India. While some of our top scientific institutions are comparable with the best in the developed world in scientific productivity, but they are also considered as exceptions to the rule. Leaving aside IITs, most of our universities produce poor quality of research work and our post-graduate (M Sc) degrees are considered equivalent to Bachelor's degree only in USA and Europe. India is far below USA, Europe and Central Asia, and only comparable with African countries, in the matter of enrollment to higher education.

It is observed that most of the Third World countries offer poor-quality programmes in higher education, viz. teaching by poorly-qualified, poorly-motivated and poorly-paid faculty, lack of infrastructure and outmoded curricula. Due to the high demand for university degrees in India, the All India Council for Technical Education (AICTE) allowed entry of the private

sector into the domain of higher education in engineering, management and information technology. This opened floodgates and as a consequence resulted in mushrooming of poor-quality institutions and lowering of standards. Punjab Technical University, Jalandhar has neither faculty nor its building, but opened more than 80 centres of higher education in association with some computer companies, in a mode being popularized as franchise system.

The University Grants Commission (UGC) and the Ministry of Human Resource Development (HRD) have also encouraged the entry of NRIs and multi-nationals to set-up private universities in India. No doubt, in USA all the best institutions are managed privately, but in India accountability does not exist. Even the National Accreditation and Assessment Council (NAAC) set-up by the UGC to evaluate the performance of Indian universities has failed in its mission. Only the Medical Council of India (MCI) has set-up high standards for recognition and affiliation of medical colleges. Manipal Medical College stole the show and became the first privately-funded and managed university in India, with its campuses in Sikkim and Bhutan.

The TFHE report is an eye-opener for the HRD Ministry and the UGC. Some of its conclusions are noteworthy:

- Higher education must be planned properly. The proliferation of private

institutions is doing little more than preying on the aspirations and assets of well-intentioned students and their families.

- The practice of draining, training and retaining the best brains of India, the products of our IITs in USA, is a clear set-back to science and technology development in India.
- Good governance and a systems approach are the need of the hour for promotion of higher education in India.
- The biased view of Indian economists and planners that higher education provides a lower return on investment than primary and secondary education must be overlooked, if not outrightly rejected.
- Higher education has enormous potential to promote prosperity among Indian people, irrespective of their social origins.
- Academic freedom, autonomy of academic institutions, meritocratic selection of faculty, Vice-Chancellors and Directors of research institutions and monitoring the progress and accountability of higher education institutions are essential for tapping the vast human resource potential of India.

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## Physics research as an avocation?

Physicists generally recognize that we are, at the school-leaving stage itself, losing bright students to other vocations. While it is very important to change this scenario (and efforts like KVPY should bear fruit), I pose here the following questions. If we encourage physics research as an avocation, would bright young persons be willing to do physics research in their spare

time? If the answer is yes, how can we support an 'avocational' research physicist (ARP)?

This discussion is initiated in the belief that bright youngsters would be keen to do research as a hobby for the same reasons for which many of us do it as a vocation, viz. for creative pleasure, and in the hope that some work of ours will leave a lasting impact. Even to a

'vocational' research physicist (VRP), archival citations are more satisfying than quick citations. And an entry in a standard textbook would make it all worthwhile! Since only a small fraction of our papers are cited ten-to-fifteen years after they are published, an ARP who publishes less can have the same lasting impact as a VRP. There are, of course, well-known examples of out-