

CURRENT SCIENCE

Volume 80 Number 7

10 April 2001

EDITORIAL

Redirecting migrations: Reversing the brain drain

A recent press release issued by the Committee on Science and Technology in Developing Countries (COSTED), based in Chennai, carries the formidable (and somewhat forbidding) title – ‘Redirecting Migrations’. The release accompanied a questionnaire that arrived on my desk; a quick glance reassured me that this was merely yet another attempt to address the issue of the flight of trained manpower from the developing countries to the more developed countries of the West. For most, this subject is a very familiar discussion topic of yesteryear – ‘the brain drain’. For a long time in India, science students with post-graduate (M Sc) and doctoral degrees obtained in institutions across the country, inevitably looked to the West for opportunities for acquiring Ph D degrees and post-doctoral research experience. In the area of engineering, the success of the Indian Institutes of Technology (IITs) as an experiment in technical education, triggered a remarkable phenomenon beginning in the 1960s; the sustained mass migration of generations of young, trained engineers with Bachelor’s degrees, to the United States. The IITs provided a unique atmosphere, where a subtle combination of training and peer pressure ensured that migration was the most important agenda of each succeeding graduating class. The West, particularly the United States, and to a lesser extent Canada and Europe were the favoured destinations. Since the costs of training students at IITs were (and are) heavily subsidised by public funds, increasing concern about the consequences of mass migration of scientists and technologists, crystallized in the 1970s into the many, and generally futile, debates on the brain drain. As a corollary, there were many strategies advanced to stem the tide of migration of trained manpower. Predictably, nothing much happened. Migrations continued and governmental agencies periodically devised schemes for ‘attracting talent’ to return from overseas; notable among these, was the CSIR ‘Pool Officers’ scheme. More recently, the ill-conceived Swarnajayanti Fellowships scheme of the Department of Science and Technology, was apparently born as a result of a moment of ministerial inspiration, that was directed towards ensnaring the talent of Indians working overseas. But, generally the worries over the flight of talent have

become muted; globalization is changing not only the rules of the game, but is creating new problems and opportunities, which appear of more immediate concern. The IITs are now preoccupied in generating funds from their many, enormously successful alumni who have scaled great heights in the West; indeed a new relationship between the migrants and their institutions is developing, which augurs well for the future. Even new institutions that have as their primary focus, the training of students for the global ventures of the future, are on the anvil. In this context the COSTED note appeared a ghost from a distant past when it states: ‘... Migration is not a new phenomenon but migration of trained S&T manpower from developing countries ... has been causing great concern to the developing countries because these highly educated and skilled are the very ones whom the less developed countries cannot afford to lose. Since the great majority of these migrants move on a permanent basis, this perverse brain drain not only represents a loss of valuable human resources but could prove to be a serious constraint on the future economic progress of Third World nations.’

Is the premise, on which the COSTED press release based, accurate? It is quite possible that in some countries of the Third World, notably Africa, the loss of trained manpower may be critically important. Is it important in India? For decades, the output from our institutes of higher education has been large and of a very high quality. Our ability to absorb the talent has been limited and in many areas of science, Ph Ds have little option but to go overseas. In the last 20 years recruitment at our Universities has been limited by local political constraints and our national laboratories and research institutions have had few openings. The steady migration of scientists has been inevitable. Years of restricted recruitment of highly trained manpower, have led to the perception that opportunities in India are limited and that jobs in research institutions are not easy to come by. We would hardly be in a position to optimally employ the best of our compatriots working overseas, were they to decide to return. However, Government agencies periodically decide that special ‘material’ incentives must be offered to entice

scientists living overseas to return. Invariably, these schemes flounder, because many scientists, who are keen to return, are really looking for institutions, with the necessary academic ambience and research facilities, which will allow them to effectively pursue their chosen areas of research. Few of our institutions appear attractive to those settled overseas. Indeed, some Indian companies interested in setting up state-of-the-art R&D facilities have found it worthwhile to consider setting up laboratories in the West – the forerunner of truly made-in-India multinationals. While the COSTED questionnaire inevitably leans towards new ideas for ‘incentive redirecting migration, it may be a better idea in the long run to devise financial and management packages to resurrect some of our slowly dying academic institutions and national laboratories. This revival must be fuelled by major new initiatives to create new positions in important areas of science across the country; a strategy that is being pursued in many countries, notably China. Greater attention must also be paid to schemes which enhance the

internal mobility of scientists. But, in the end, more worrying than the flight of scientists and technologists overseas, is the internal haemorrhage, where fewer and fewer students opt for science as career and the vast majority of engineering graduates yearn for a career in marketing, management, finance or ‘information technology’.

The Declaration on Science adopted by the World Conference on Science, organized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Council of Scientific Unions (ICSU), held at Budapest in June 1999, quoted by the COSTED note, states that ‘favourable conditions should be created that will tend to reduce or reverse brain drain and that any measures should not restrict the free circulation of scientists’. Despite the best of intentions, redirecting migrations is not going to be easy. Whether efforts to do so, by offering selective incentives, are desirable, must be a matter of debate.

P. Balam

