

DST'S SUPPORT FOR YOUNG SCIENTISTS

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Young scientists in India have been complaining for a long time that their potential remains untested in hundreds of laboratories around India. They complain that their talents are ignored and suppressed under the stranglehold of various deans and heads of departments of institutions around the country. Even some senior scientists blame many of the ills afflicting the scientific establishment on its "feudal set-up".

These were some of the issues discussed at a Symposium on Management of Indian Science for Development and Self-Reliance in New Delhi in February 1980. This was attended by over 200 scientists from all over the country and topics of discussion ranged from health care and rural development to science planning and management of R & D institutions. There was wide ranging debate and disagreement on most items except the unhappiness of the young scientists. The degree of cynicism was surprising for the young group.

However, because of this meeting and other such gatherings around the country the bureaucracy lumbered up to invite some of the vocal young people to discuss these issues in the Planning Commission. Professor M. S. Swaminathan discussed these issues with the heads of scientific departments and heads of agencies in April 1980, and a paper was prepared and presented to the full meeting of the Planning Commission in May 1980. Then Professor Swaminathan met a cross-section of young scientists in November, and a Memorandum for the Expenditure Finance Committee appeared in December 1980 proposing a scheme "promotion of scientific interest in youth". This got included in the VI Five Year Plan chapter on Science & Technology with an allocation of Rs.50.00 lakhs. An incredible pace for a bureaucracy pilloried daily for its inefficiency and sloth.

At present this scheme is expected to provide support for,

1. Seminars and Symposia on subjects relevant to the promotion and encouragement of scientific interest in youth.
2. Publication aimed at promotion and encouragement of scientific interest in youth.
3. Travel grants for international travel to individual

young deserving scientists. Financial grants to organisers of seminars/conferences/symposia for inviting young scientists.

4. Financial support for research and development projects undertaken by young motivated scientists.
5. Placement of young scientists with renowned and experienced researchers for short periods.
6. Observation and interpretation of natural phenomena.

If nothing else, the young scientists should consider this a major achievement. Now the ball is back in their court and they have to force, goad, and push the powers that be into expanding such commitments and giving them the facilities they are convinced they deserve. This is not going to be easy: the first step required talking, shouting and coaxing, but the next step will require real hard work.

Under this scheme the Department of Science and Technology has been able to fund 18 research projects, 22 seminars/symposia/training programmes and 59 young scientists have received assistance for international travel for training programmes and conferences. The kind of schemes which have been funded include, entrepreneurship development programme for young scientists, a plan for learning through investigative projects for young science students, *cycle rickshas*: A survey of design and design factors in India, mode of action of urinary protein on the adrenal and gonadal activities in rats and monkeys, inference-based conditional specification toxic effects of some high altitude piscicidal plants in fishes and computer aided analysis and synthesis of mechanisms and machines. It is clear that the scheme is off the ground, but much more needs to be done. For this the young scientists will have to make their presence felt.

Despite the fact that the young scientists programme has been advertised in magazines like *Science Today* and posters have been sent to almost all Universities, the Department of Science and Technology has not been flooded with research proposals. Further, not many of the proposals can be called radical, path-breaking, different, or even people-oriented. This is somewhat disconcerting. A majority of the proposals have come from those working in the basic sciences and very few from

engineering and other applied sciences. I would have thought that in a country like India where there are thousands of problems which need to be solved, young people would jump at an opportunity like this to obtain funds. However, it is possible that not enough publicity has been given to this programme and so very few people know about it.

The philosophy underlying research support for young scientists by the D. S. T. is that projects should be small enough to be successfully completed without necessarily involving senior scientists. The scheme therefore funds projects (i) pursuing bright ideas determining the feasibility of a large project, (ii) continuing Ph.D. research (iii) training in the management of large projects, which do not need large amounts of money for equipment and infrastructure. As such, a limit of Rs.50,000 per project per year has been set and the projects which are socially relevant are given priority. Provision has also been made for unemployed young scientists to draw a salary from their own projects within the financial limit of Rs.50,000 per year. The Department of Science and Technology wants this scheme to be used by the largest number of young scientists who have bright ideas for

small projects. Handling such small projects would also provide experience for submitting larger projects in competition with senior scientists later on. To make things easier, the DST does not even demand that the initial proposal be forwarded formally. Of course, if a project is approved it can only be funded through the regular channels of the organisation where the scientist wants to work.

I feel that young scientists should take full advantage of such a scheme. There is hardly any country in the world where a separate budgetary allocation is made for research projects submitted by young scientists. Unless the DST receives hundreds of proposals which are novel, different and indigenous, we become very pessimistic because that would indicate that the senior scientists of tomorrow will be just like the establishment of today.

Information about the scheme "Promotion of Scientific Interest in Young Scientists" may be obtained by writing to Director, Promotion of Scientific Interest in Young Scientists, Department of Science and Technology, New Mehrauli Road, New Delhi 110016.

NEWS

SCIENTISTS AND THE MEDIA: SOME PROPOSALS

... "In the hope of stimulating discussion and debate, I am [proposing] some rather radical and incompletely developed thoughts. . . . For future journalists and the general public, I recommend high-school and college curricula that emphasize such areas as the process of science, the evaluation of data, and the critical reading of documents. As for scientists, let me make two suggestions. First, the training of scientists in working with the media should begin no later than graduate school. I believe that every graduate student should take a course in scientific communication. The course should emphasize such topics as how to write scientific papers and how to present papers at conferences, but it should also address how to work with the media. Furthermore, every master's thesis or doctoral dissertation should be accompanied by a lay summary or press release written by the graduate student (with the guidance, if possible, a science-writing instructor or public

information officer at the student's institution). And just as the student must defend his or her thesis or dissertation, the student should have to be interviewed by a public information officer, science writing instructor or journalist. Perhaps, as suggested in a recent letter to the editor of *Science*, every doctoral candidate should be required to give a popular talk and write a popular article. Second, I would like to see the departments that employ scientists give more tangible encouragement to working with and in the media. Ultimately, this means giving substantial weight to such activities when reviewing candidates for promotion and tenure."

[Barbara Gastel (Beijing Medical Coll., People's Republic of China) in *Earth & Life Science Editing* (24): 3-4 Jan. 85. Reproduced with permission from Press Digest, *Current Contents*® , No 8, February, 25, 1985, p. 12. (Published by the Institute for Scientific Information® , Philadelphia, PA, USA.)]