

## MEETING REPORT

### A BROAD-BASED DISCUSSION ON INDIAN SCIENCE AND TECHNOLOGY JOURNALS

The Patriotic and People-oriented Science and Technology (PPST) Foundation, based in Madras, is an independent organization which has conducted many studies of questions in the area of science and technology that are of special relevance to India. It has recently been concerned with the state of science and technology journals in India and therefore organized a 'Brainstorming session' at IIT Madras on 17 and 18 March 1989 on measures to improve our journals. The participants included at least three groups: i) publishing scientists, from many fields ranging from agriculture to mathematics, working in a variety of institutions, ii) representatives of the information science community who have carried out studies on publication patterns in Indian science, iii) representatives of organizations that bring out scientific journals, such as academies, government agencies and research councils. The plan of the meeting was to have presentations, both long and short, with plenty of time for discussions of the points raised. Inevitably there was a broad range of viewpoints on most of the issues considered. The following summary is by no means exhaustive but should at least convey the issues that are of concern to the entire community involved in different aspects of our scientific journals.

At the outset even the need for continuing with the publication of journals in our country was not taken for granted. The primary goal of scientific communication could after all be achieved in other ways. However, there did appear to be a broad consensus that the existence of healthy journals both reflected and promoted the establishment of a 'peer group' or a scientific community. It was of course recognized that different subjects may not have developed to the same extent. The need to trust and respect our own judgement and that of colleagues in the country was pointed out. On the other hand instances were given where work done in India was better cited abroad than at home!

\* A number of studies of journals and publishing in India have been made and these were discussed in one session. There seemed to be some difference of opinion within the information science community on the precise number of journals that should be

considered (ranging from 100 to 2000), the fraction of articles actually appearing abroad (30 to 60%) and the significance to be attached to 'impact factors' based on citations of articles appearing in our journals. Comparative figures for different journals naturally raised discussion of a few (relatively) successful cases such as the statistics journal *Sankhya*, the physics journal *Pramana* and the *Journal of Astrophysics and Astronomy*. While no single factor emerged, a dedicated founding editor and a vigilant panel of referees and editorial board members were certainly regarded as important.

A very significant point first raised very forcefully by a young researcher was that the present system of assessment for interviews and promotions explicitly and officially discriminated against publications appearing in Indian journals, with no regard for their scientific worth. A related point was that 'senior' people, many of whom were involved in efforts to upgrade Indian journals, themselves chose to publish elsewhere. These indefensible practices have been common knowledge for a long time but this meeting perhaps succeeded in bringing them out into the open. A corollary that many drew was that no form of legislation or coercion should be used to compel scientists to publish in our journals. It must be mentioned that such proposals did find a few advocates as well! One suggestion that came up repeatedly in this connection was that funding of research projects could have the requirement that a certain minimum fraction of the output of the research should be published in Indian journals. (Someone had taken the trouble to find out that CERN, Geneva, has all along enforced a policy that research funded by it should be published in European journals!) In fact the representative of one central government funding agency did reveal that that agency is already thinking along such lines.

While much of the discussion centred around the situation in well-endowed research institutes and departments, a few voices were heard drawing attention to the situation in a typical university. It is clearly impractical to expect a library in such a place to be well-stocked with journals from all over the world. It was rightly pointed out that strong Indian

journals could bring the excitement of contemporary science to these places, especially if carefully written reviews at the right level were available.

One important measure which, it was agreed, would help improve the standard of our journals, was consolidation of overlapping or competing subcritical journals. For example, in the case of physics, it was stated that there are three journals, one with the best standard of papers, one with the best production and a third with the best circulation! Such streamlining or pruning processes would require co-operation of different academies and government agencies, but this does not appear as difficult as it might have been some years ago when the sense of rivalry was stronger than it is today. Whether active 'killing' of journals of poor quality was needed or 'natural selection' could be allowed to take its course was left undecided.

Much basic science being international the relationship of our community with that of the whole world was naturally discussed. The important distinction was made between a regional journal on the one hand and a truly international journal on the other. In the latter the editors and referees are drawn from all over the world. There is no reason why such journals could not emerge in the Indian scene, the *Journal of Astrophysics and Astronomy* being an example.

It was argued that publication in a foreign journal was neither sufficient nor necessary for gaining recognition for work done here. Preprint circulation, conference presentations and active participation in international scientific unions are all needed in any case.

Sooner or later most discussions turned from journals to the nature, quality, and overall direction of science in India. The need for a nation like ours to participate in the world-wide scientific adventure was brought up, citing men of vision like Nehru and

Tagore. There was also the feeling that, while there were peaks of achievement, the average quality of Indian science was rather poor. It was of course argued that the poor quality and 'non-relevant' nature of a large fraction of Indian science did not preclude journals of good quality publishing the best work. But there were a few who felt that this was indeed the case, and there was even a hint of the opinion that one must tackle our science first, not the journals. As with other issues the opinions expressed ranged over the entire spectrum, with a few voices attempting to focus the meeting back on its original target.

Given the nature of the gathering, it was perhaps not surprising that no firm decisions or courses of action could be laid down at the end. A set of conclusions and recommendations have however been prepared, and a committee is being formed to follow up these matters with the concerned agencies, such as academies, government departments and professional societies. In any case it is significant that such a wide cross-section of people concerned with the problem were able to find a common, non-official platform and express their sometimes diverse views very freely. It is true that the measures discussed and points raised were not entirely new. But only such meetings can determine the actual reactions and support that any programme to improve our journals would receive from those most closely involved. In this connection, a large-scale survey of opinions and attitudes of a wide cross-section of scientists on this question has also been made and its results should prove useful.

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