BRAIN-STORMING SESSION ON INDIAN SCIENCE AND TECHNOLOGY JOURNALS

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This event was jointly organised by the PPST Foundation and IIT Madras, and was sponsored by various governmental agencies. This was organised as a part of the campaign that the PPST Foundation has been conducting on the need to improve the standard and standing of Indian Science and Technology Journals. The attempt was initiated to bring together members belonging to the different sections involved with the running of our S&T journals-publishing scientists, editors and publishers, and the funding and policy-making agencies- for a face-to-face discussion on how our journals can be improved. The larger perspective behind this effort was the faith that:

The health, functionality, purposefulness and dynamism of our S&T institutions are, in the first instance, the responsibility of our S&T community. We can build healthy, functional, purposeful and dynamic institutions of S&T in our country only if we, as a community, acquire a distinct national identity and a primary commitment to our country and our people.

There were about 90 participants drawn from different parts of the country and representing diverse disciplines most of them belonging to our leading institutes of teaching and research. There were no serious disagreements on the fact that our journals are, with a few and rare exceptions, of poor standard and re not taken very seriously either by our own scientists or by foreign scientists. Discussion on why this is so, brought forth very forthright and forceful viewpoints from the scientists, particularly the younger ones, For example it was observed repeatedly that our senior and established scientists themselves do not send their better papers to our journals. When the leading scientists themselves were so reluctant to publish in Indian journals, the younger and junior ones had little motivation to do so. Similarly, it was pointed out that the prevalent system of giving credit for publication discriminated heavily against our own journals. However it was also noted that the way our journals are presently run (poor standards of reviewing, poor circulation, poor quality of production, lack of punctuality, etc), one cannot expect serious scientists to send their better papers for publication in them.

The details of the deliberations, notwithstanding, it became clear that the present poor state of our journals was largely a result of our neglect and indifference and that if we collectively decide to improve them, significant changes could be made without quite needing a revolution. Even though there were many points on which unanimity of opinion could not be realised it was evident that many participants were keen on initiating some definite programme for improvement of our journals. A set of conclusions and recommendations wee arrived in the course of the conference and it was also decided to constitute a committee to follow up on them.

While the outcome from the meeting might not have been to the satisfaction of many who expected some very concrete measures to emerge from it, it appears that the meeting did succeed in bringing to focus many of the real issues involved. For example, it became quite evident that running our own journals of good quality and standing is important not merely from the point of view of dissemination of research results, but mainly because it helps us in consolidating ourselves into a functioning community. As a matter of fact, it became quite evident that many of the maladies of our modern S&T activity ultimately arise out of our failure to evolve a modern S&T community can consolidate here with a distinct national identity and vision. And, a national S&T community can consolidate only around functioning indigenous S&T institutions such as journals, conferences, academies, professional societies, awards etc. That the meeting largely succeeded in perceiving and discussing the issue of our journals in this light, appears in itself to be a significant step forward.

While the meeting was primarily meant to discuss and find ways and means of improving the standard of our S&T periodicals, quite understandably the discussions often went over to the following larger levels as well:

1. The poor quality of modern S&T activity in our country! There was a fairly strong view point that the poor quality of our journals merely reflects the poor quality of research work in our country, and that nothing can be done about the former unless the latter is improved. This perception largely ruled out any possibility of our being able to do anything about our journals at present, it required that we chalk out a plan for improving the standard of scientific research in our country as such- a problem that could not reasonably be expected to be resolved by the present gathering.

2. The content and relevance of modern S&T activity in our country: It was acknowledged that the content of modern S&T activity in our country as such was quite unrelated and irrelevant to the lives of most of our people, and this being so, it is quite pointless to discuss anything about improving its standard etc. This, of course, raised the question of larger societal issues which the present gathering was quite unwilling to handle.

While the second of the above two aspects was not pursued much, the first point did dominate the discussions substantially. And it was quite puzzling to see many a leading scientist from our elite institutions repeatedly asserting that the level and quality of S&T research in our country is woefully poor. Many were vehement that there were hardly a second person or group in the country with whom they could have profitable professional interaction. The picture that emerged of our collective performance in this area indeed was quite bleak. But for the fact that many of the participants were eminent scientists deeply concerned and committed to the course of Indian science, one would have been tempted to conclude that such a poor portrayal of our S&T efforts is being deliberately done simply to avoid committing themselves to do anything about our journals! After all, how can one suggest that we should take steps to improve our journals if we are doing nothing worthwhile in our scientific research anyway?

In any case, there is a need to examine critically (with the help of quantitative data) as to how well or otherwise we are doing in the area of modern S&T research. Is it possible that assertions that there is nothing of any consequence being done in our country in terms of S&T research are often merely impressionistic? It is notorious that many of our scientists come to know of the work of their colleagues only when they meet in a conference abroad! As there is not much direct interaction amongst even our scientists working in the same field. It is possible that we may not have a realistic picture of what exactly our national research output in any area amounts to. Also, there exists no central place in our country which maintains an up-to-date and comprehensive information on all the research output emanating from our country in various spheres. The meeting therefore repeatedly stressed the urgent need to have a widely accessible and reliable national data-base on all our research activities so that one can easily get a correct picture of the kind of activity that is taking place in any given area. If it is indeed the case that our efforts re scattered widely and unproductively over too many areas, then it will also enable us to decide as to which activities should be terminated, which should be strengthened and expanded, etc.

Another issue that came to the fore during the discussions was the nature of our links with the foreign S&T communities. (Even though references are normally made to the so-called International S&T community , it appears that what one is really talking about largely is the Western S&T community- North American and European, to be specific). Suggestions such as that we should not send our papers to foreign journals or that we should acquire a district national identity etc. evoked the apprehension in some scientists that we wee being isolationist. There seems to be a genuine fear amongst some that such steps would weaken our links with the Western S&T community and that it would be disastrous for modern S&T work in our country. For example it is a fact that even many of our senior and leading scientists would feel quite insecure if they do not continue to send their papers abroad regularly, or do not get invited for a conference abroad periodically. In spite of the fact that linkages with the Western S&T are given such a great importance, we however do not seem to have made any critical examination and assessment of how exactly our S&T efforts benefit from such linkages.

One view so that is helps us to be up to date and keep in touch with the latest developments . But in the absence of our having any viable and long-term plan of how to utilise such information and knowledge to strengthen and further our own work, such contacts and the importance attached to them may actually be distracting us from laying down our own priorities and plans of action. While such contacts, under the prevalent value system in our S&T set up (the West-looking syndrome), may further the personal fortunes or careers of some individual scientists, it appears that they may actually be having an unsettling and disruptive influence on the S&T work in our country as a whole. While nobody is demanding that we severe all contacts with the West in S&T matters, it should be realised that the present levels of dependence (at individual as well as collective levels) is turning us into mere consumers of the ideas and products of Western S&T; like a drug addict, we fear total destruction if the next dosage of foreign contact is threatened! What is being suggested is that we should collectively regulate the nature and extent of such contacts so that, instead of weakening, they would aid in strengthening our own activities here.

And a word in passing about the type of things that we do not seem to want to learn from our contact with the West. We do not seem to care much to find out how exactly the West has gone about setting up functional and dynamic institutions of modern S & T there and how they are sustained, and this, notwithstanding all our infatuation with precisely the same institutions and their functioning. For example, hardly any of our leaders in sciences seem to be aware that the CERN, Geneva, has all along enforced a policy that the work supported by it must be published in European journals alone. Or that a suggestion that the French scientists should publish increasingly in English was seen by the French Prime Minister as threatening French civilisation itself. Or that at the early stages of the development of American journals, the American scientists had come forward to voluntarily meet their page charges. And so on. The point is, we do not seem to have cared much to learn about the nature of the serious, systematic and disciplined efforts that must have gone into making the Western S &T institutions (including the journals) as strong as they appear to us today.

A certain discussion that took place on the second day of the meeting, a discussion that got to be quite heated at time, is worth recalling here as it is quite revealing in many ways. Suggestions had often been surfacing in the meeting that maybe we should think in terms of laying down certain regulations and restrictions that require our scientists to publish at least a part of their work in our journals. Many in the gathering felt very vehemently that such legislation in matters of scientific research were quite unhealthy and wrong and had very little chance of succeeding any way. Appreciating this view, a suggestion was mooted that we all voluntarily take a pledge to send most of our better papers to our own journals. This, strangely enough, evoked even stronger protests from all those who had come out against any form of legislation or compulsion . The idea was opposed even on grounds that taking a pledge was unscientific! The ensuing discussion raised such passion that one leading scientist even threatened to leave the country if such compulsions were brought on him in matters of scientific work!.

It is perhaps true that many of the viewpoints that came up in the meeting on matters relating to the modern S & T set up in our country have already been aired publicly before. The elite sections of S & T establishment in our country, particularly its top leadership, have for quite sometime now been putting forward frank, and often quite harsh assessments of the present state of modern S & T work in our country. Many of the views expressed publicly at the highest levels of our S & T set up are such as to take the wind out of the sails of even the severest of its critics! When such pronouncements are analysed and its implications worked out, it appears possible to draw a few conclusions regarding the perceptions and comprehensions presently prevailing amongst the elite sections of our S & T set up. Some of these are:

1. The Modern S & T community in our country appears to be strongly dissatisfied with its collective performance as a whole. And the dissatisfaction is not on the score that it is unable to relate its functioning and performance to the lives of the common people of India, or such other considerations. This dissatisfaction rather pertains to its inability, as a modern sector in

India, to deliver whatever goods that it had itself declared it is striving to deliver! While it may still point to many factors external to itself as contributing to this failure, there seems to be an increasing awareness that its own lack of vision and organisation are largely responsible for it. This awareness also seems to have resulted in some inpatient and in a strong urge to do something to improve the situation. This must be counted as a very positive aspect of the present situation on the S & T front.

2. The elite sections of our S & T set up seem to be quite conscious that, notwithstanding the international character that modern S & T is believed to have, the international S & T community is quite unlikely to accept us as equals. While some individual Indian scientists may be recognised as competent and applauded, we as a community do not appear to have much of a status or standing in the world S & T scene as such. With our increasing awareness of the biases and prejudices governing the recognition and reward system to the so-called international S & T community, there seems to be an increasing feeling that we must, sooner or later, stop viewing Western recognition and rewards as the sole objective of our scientific and technological pursuits here. The spread of such awareness and its getting aired openly is again a positive element in today s S & T scene in our country.

3. There seems to exist not much of an awareness (at least not much of a shared awareness) as to how we are to go about building a modern S & T community here that is creative and productive and capable of making significant contributions to modern S & T knowledge and practice in the world. Even those who are acutely aware of the nature of the problems facing us and are eager to do something to alter it, could not, by and large, go beyond making appeals to our scientists to do science with greater honesty, sincerity and integrity (with of course an implied As I am doing). Notwithstanding the deepest of concerns and the loftiest of goals one does not get much of an evidence of the existence of a vision that can give some life to it, or of an awareness of the practical/structural/organisational measures that would be needed to realise it. Our comprehension of the nature and functioning of the modern S & T structures and institutions, of the measures needed to shape and sustain them, seems to be quite poor. This being so, all the noble-intentioned declarations and exhortations do not amounts to much.

4. We seem to view all attempts at making ourselves more accountable, responsible and disciplined, with utmost suspicion and hostility. Our extreme hostility to the idea of subjecting ourselves to any form of external (external to oneself or one s small group) control and regulation is only matched by an equal unwillingness to voluntarily impose such control and discipline on ourselves. While many of us often seem to sympathize with the need to discipline and even get tough with other sections of our society, (for the sake of national integrity, progress, development, etc) we ourselves appear to want to conduct the matters of modern S & T activity in the most anarchic and individualistic of styles. Our extreme unwillingness to regulate our collective functioning by means of definite norms and rules, to subject ourselves to the necessary levels of discipline and accountability, can only make the grandest of our plans a non-event.

It appears that we have, so to speak, come to the end of one phase in our experiment with modern S & T a phase in which we seem to have convinced ourselves that individual Indians can do modern S & T, as well as anyone else and that there is nothing racially and genetically defective in us in this regard! Whatever the reason that such an exercise had to be gone through, it is obvious that we now have to move on to the next phase where the issue is not one of some individuals achieving excellence here and there but the whole collective body (our S & T community) working towards clearly defined objectives and delivering the goods that we think ought to be delivered individual excellence can have meaning only in so far if contributes to this collective endeavour, only in so far as it contributes to the collective excellence.

In our efforts to define a national context and goals for all S & T activity in our country by closing our ranks, so to speak, it is unlikely that we would receive much applause from the West. As a matter of fact, we might even be accused of sacrificing the gains of over 40 years of our efforts, or setting the clock backwards, of being isolationist etc. It is also possible that large numbers of our scientists and engineers may not then find themselves as welcome in the West as some of them now seem to be. It is possible that far fewer numbers of our research papers might get published in foreign journals and conferences.

While there may be much that we could learn from others in this effort, it is obvious that we on our own would have to work out a suitable model for carrying on modern S & T activity here, with appropriate organisational and institutional structures etc. If such a task appears forbidding today (as seems to be the feeling of many of our senior and leading scientists who are fully aware of the nature of the task), it is partly because we have not attempted to confront it as a community. Our success in making the modern S & T sector functional and productive today depends critically on our success in thinking and acting as a community with a distinct national identity and outlook in all matters concerning modern S & T activity in our country. Our interaction with the so-called international S & T community (for furthering the frontiers of knowledge, for achieving excellence, for being world leaders, or whatever) must be regulated through the medium of such a national community.

As such a form of community does not exist at the moment, our efforts should be directed at building one. This requires building and strengthening of indigenous institutions of modern S & T here, institutions whose contours close within our national domain. In the absence of our doing this, nothing much is likely to emerge from discussions regarding how to achieve excellence, or how to make our modern S & T sector relevant to the needs of our people, etc. Far from being a matter of resources and know how, the issue seems to be largely one of the necessary vision and will.
