

The symposium successfully highlighted the experience, expertise and instrumental capabilities that are now available in the country for any national endeavour for using seismology in the triple areas of deep lithospheric studies, environmental safety and in the generation of large mineral and fossil fuel resources and geothermal energy. A new horizon has opened up as a result of national facilities like the Gauribidanur, Bhatsa telemet and other arrays, wherein an integrated multi-institutional collaboration as well as individual and group efforts can play a great role in forging seismological investigations ahead. Despite such facilities and some bright areas of achievement, we are a few decades behind many countries in the world in large-scale application of seismological methods, essentially because such application is cost-intensive. But viewing the long-term advantages of a dependable interdisciplinary data-base for the triple areas of application referred to above, the cost is but a fraction of the larger benefits. It is, therefore, hoped that the momentum generated by this recently concluded National Symposium, so well organised, would lead to greater national awareness and understanding of the need to fill this great gap in technological inputs.

The reviewer wishes to acknowledge with thanks the benefits of consultation he had with Dr. S. K. Arora of BARC and Dr. H. M. Iyer of USGS in preparing this review.

T. M. MAHADEVAN

THE IDEAL SCIENTIST

The July issue of 'Science' (27th July 1990) carries a note by Barbara J. Culliton describing what an Ideal Scientist should strive to be.

The ideal scientist, according to the guidelines, is a good mentor, a teacher who imparts to his or her students the ethos of a life in science, and 'recognizes that the trainee is not simply an additional laboratory worker'.

The ideal scientist knows the importance of hanging on to primary data and recording them in a way that makes them accessible to colleagues. 'Scientific integrity is inseparable from meticulous attention to the acquisition and maintenance of research data'.

The ideal scientist publishes just the right amount—neither too much nor too little and, when possible, makes reagents and the like available to colleagues who want to follow up on published data. The guidelines call 'timely publication' essential to scientific progress but oppose fragmentary publication. People should be judged on the quality, not quantity, of their scientific output.

The ideal scientist is listed as an author of a paper only if he or she actually did some of the work. The guidelines describe authorship as a privilege that belongs only to those who make a 'significant contribution to the conceptualization, design, execution, and/or interpretation of the research study'. If you don't know enough about the study to be able to defend it scientifically, don't put your name on it, the guidelines add.

The ideal scientist never abuses peer review by taking a colleague's idea for his own. Nor does he tell anyone else about the substance of a paper or proposal under review—especially not in casual conversation.