

## NEWS AND NOTES

### LOOKING BEYOND PUBLICATIONS – NEED FOR TRAINING MANPOWER

There was a time when Indian scientists had to run from pillar-to-post to get their analyses done in laboratories outside India. An Indian who could manage collaboration with a scientist abroad was able to publish research papers in International Journals. With the setting up of research centres and laboratories in different parts of India, with the effort of dedicated Indian scientists, this situation slowly started to improve in the past three decades. This led to an increase in number of scientists working and producing good quality data with equipments available within the country. Respect for data from India and Indians started climbing. But still, a nation as large as ours that has talent need more laboratories, a need which has remained unfulfilled due to our economic situation. With economic boom, this situation has also improved in recent years. Agencies that fund science projects such as the DST amongst many others, have provided support to setup sophisticated instrumentation facilities in various Universities and Institutes. With the result, facilities have come up in different parts of the country catering to the needs of Indian researchers. A large number of research papers are being published based on data generated using these facilities, which gives the apparent impression that the objective of setting up such facilities has been fulfilled. However, this is not completely true in all cases.

One of the objectives of setting up sophisticated instrumentation facilities is

to generate trained manpower, so that the trained personnel continue to work on similar lines, and with similar instruments, independently. Unfortunately, all users of instruments do not think about this aspect. Not all, but, many officers in-charge, just dispatch their samples to laboratories to get their analysis carried out. Once data are generated, a paper is published. The scientist is pleased and the person in-charge of the laboratory is also happy because he/she has another paper based on data generated from his/her laboratory. There is no doubt, that this is creditable and needs to be appreciated. All scientists depend on publications for promotion, honours and awards so that they continue their upward progress in their respective careers. However, when it comes to Science as a whole and Service to the Nation, this is only a part of the objective fulfilled. One has to look beyond publications. There is a need for researchers to appreciate the importance of getting good training in running instruments that generate data for them. Likewise, there is also a need for scientists who are in-charge of instrumentation facilities and laboratories, to realize the importance of training as many young researchers as possible, so that India as a Nation will not experience shortfall in trained manpower. This can be achieved by organizing training programmes of at least 2-3 months duration involving young researchers who work with dedication on equipment and get much needed experience

under the guidance of the senior in-charge of the laboratory. This is being done, no doubt, but there is considerable scope for improvement. The frequency and magnitude of such training programmes needs to be increased and more such programmes are held, better it will be for the country. And importantly, the Heads of Universities and Institutes that house sophisticated instruments have to recognize that such efforts by scientists in-charge of laboratory facilities are as important as publications, sometimes even more important. This is because, a publication is a short term achievement of a scientist and his/her laboratory, but producing good trained manpower and a second line of scientists who can handle a particular machine is a long term achievement, which cannot be quantified. Whilst the short term achievements are important for the progress of a scientist in his/her career during his life time, the long term achievements are for the benefit of the Nation as a whole, and their importance goes beyond the life time of a scientist. Therefore, as responsible citizens of India, it becomes a duty of experts running sophisticated equipments to work towards the long term interests of the Nation by looking beyond publications.

*Dept of Geology and Geophysics,  
IIT, Kharagpur - 721 302  
Email: mamtani@gg.uitk.ernet.in* M A MAMTANI

### A WATER CENSUS OF THE UNITED STATES

Because of the availability of adequate quantities of suitable water is crucial to the Nation's human population, economy, and environment, the USGS will conduct a Water Census of the United States to provide

citizens, communities, natural-resource managers, and policy makers with a clear knowledge of the status of their water resources, data on trends in water availability and use over recent decades,

and an improved ability to forecast the availability of freshwater for future human, economic, and environmental uses.

*USGS Fact Sheet, Dec 2007*