

CORRESPONDENCE

[Momentous changes are taking place in the Indian Earth Science scene, like the creation of a new Ministry of Earth Sciences and the constitution of an Earth Commission. In this context we brought out a particular view point by Absar in the September issue of the Journal (JGSI, v.68(3), pp.359-560). A response to this is printed below. We would like the readers to take active part in this ongoing discussion on the future of Earth Sciences in the country, as it concerns all of us. While there may be a need to restructure and regroup many of our organizations, there is also perhaps a greater and concurrent need for internal reforms in many of our organizations to foster originality, creativity and greater functional autonomy of the individual scientist. Readers are welcome to send their considered views, in brief, on this topic of general interest to all earth scientists – Editor]

INDIAN EARTH SCIENCE AT THE CROSSROADS

This refers to the passionate plea made by Absar (2006) for inclusion of the Geological Survey of India (GSI) in the Ministry of Earth Sciences. Preamble of the new ministry emphatically states its objective as, "reorganisation of Ministry of Ocean Development as Ministry of Earth Sciences and inclusion of Indian Meteorology Department (IMD) in it". Destruction in 2004 tsunami has prompted the process of setting up the Ministry of Earth Sciences to help in developing an early warning system for natural disasters. Is it absolutely necessary to bring GSI into the ambit of the new ministry? Will it be really beneficial to the cause of earth science, or be a mere cosmetic surgery? How would the inclusion transform GSI into a dynamic and energetic institution? Can geological community readily accept the weatherman as head of the Earth Science Ministry? These are million-dollar questions and need extensive deliberations within geological community and among geologists of GSI in particular. Mere emotive frenzy will not help the cause of geology. It is necessary to first understand the GSI as it is today.

Four years ago, on 23rd May 2002, Government of India had constituted an expert committee to redefine the role of GSI in the 21st millennium. The Committee was headed by Mr. Arvind Verma, former Secretary of Mines, and co-chaired by Padamshree Prof. S.K. Joshi, former Director General, CSIR. Prominent geoscientists, like Prof. S.K. Tandon, Dr. V.P. Dimri, Ravi Shanker and Devasis Chatterjee were among the members of the committee. Terms of reference of the committee included changes in the charter of GSI in the light of developments in last 30 years, assessment of the level of expertise and organizational structure, requirement of training, infrastructure, examining overlap in the role and function of GSI vis-à-vis earth science related activities of the Departments of Ocean Development, Science & Technology, Environment and Forests, Water Resources and to suggest

a mechanism for a meaningful cooperation between different departments.

The Committee had submitted a report entitled, "Geological Survey of India: Meeting the Challenges" on 31st December 2002. It is a well researched document on the subject of core issue i.e. role of GSI vis-à-vis other government departments. The Committee observed that the character of GSI is distinct and its functions do not overlap. It had specifically mentioned that the functions of DOD and sister organizations viz., NIO etc. vis-à-vis GSI are distinct. Synergy and complementary nature of activities can be seen as an advantage and better understanding of marine geology in the national perspective. Department of Science and Technology (DST) has an Earth System Science Division (ESSD) which manages the R&D projects in earth sciences in various institutions. It always seeks opinion of GSI on national issues and has put it on its expert panel. GSI carries out glaciological and pollution studies on ground and surface water. It also doesn't overlap with the functions of the Ministry of Water Resources. Rather, it supplements the knowledge database.

The same Committee had redefined the charter of GSI. The ten point charter defines five primary functions of GSI. They include: (i) preparation and updating of geological, geophysical and geochemical maps of India, (ii) to explore and assess mineral and energy resources of the country and its off-shore areas, (iii) to explore the shallow subsurface domain of the country, (iv) conduct research in earth sciences and promote application of new knowledge for effective management of earth system and its resources and (v) fostering the understanding of geological knowledge to reduce risk to life and property from geological hazards. It had opened up new vistas in the realm of GSI viz., geology of water resources, R&D activities, information services and education with optimum deployment of geologists.

Effective and rigorous discharge of responsibilities would usher in a new chapter in the GSI.

It is a matter of great pride that, unlike any other scientific departments, recruitment for geologists in GSI is carried out by an open written examination, known as Geologists Examination which is conducted by the Union Public Service Commission (UPSC). Therefore, as per the prevalent practice in IAS, promotion in the cadre is solely dependant upon placement in the gradational list (based upon result of examination), drawn at the entry level. It is a fundamental document that determines the destiny of a geologist. Thereafter, merit takes a back seat. Geologists (equivalent to Scientist B & C in scientific departments) are the only workforce (worker scientist) of GSI. Many of them stagnate at the maximum pay scale (it means he/she reaches the zenith of the pay scale after serving in the same post for more than 20 years, after which the annual increment is also denied). This is a cause of major concern and detrimental to the health of GSI. Though in non-geological streams, including administration, conditions are better and incumbents get regular promotion in due course. It is high time that appropriate opportunity in career progression be made available to geologists with distinct edge on allied streams. About 25% of geological strength is engaged in supervisory assignments and are managers of scientists. Such a thing is unheard of in any other scientific department (Barthwal, 1999). Expert Committee had also viewed it seriously and observed that deployment of large numbers of supervisory officers amounts to under-utilization of their expertise.

Since eighties, benefit of joint seniority affected the post of Director (Selection Grade equivalent to the Scientist E) onward. Thereupon many non-geologists held the post of Director General, which was somewhat demoralizing to the geological community and did not serve the cause of earth science at the apex level (Barthwal, 2001). The Expert Committee had also taken a serious view and deliberated on the issue. It recommended an amendment in the Recruitment Rules for the post of Director General to ensure the selection of a suitable geoscientist, by a search Committee headed by Cabinet Secretary that need not restrict its choice to the designated feeder grade, in conformity with practice in other scientific departments. Unfortunately, Government had accepted all the recommendations of the Committee save the criterion for selection of Director General. Incidentally, Scientific Officers Association of GSI (GSISOA) had also vociferously opposed the proposed amendments. It is an unfortunate development. On the contrary, for the cause of earth science, lateral entry in the service ought to be encouraged and welcomed. It is an open secret that

geologists of GSI by and large lack research temperament. Lateral entry at supervisory level will facilitate the bringing in new and fresh thinking. Optimum quota (about 25%) for lateral entry from Scientist E and onward level would immensely benefit the organisation. Adequate promotional avenues are warranted in the geological stream. It would accelerate the effective functioning of GSI.

The Expert Committee had also recommended that a Department of Earth Sciences be established with GSI as the executive arm and the Director General concurrently as Secretary to the Government of India. It is befitting for the geological community that an eminent geoscientist should occupy the coveted post of Director General. Subject experts of repute always head Department of Atomic Energy and Department of Space since their inception. It is reflected in the phenomenal growth of these organisations. GSI may be elevated to the status of Department of Earth Sciences as recommended by the Expert Committee. This however, is not of paramount importance unless concurrent internal reforms are implemented.

The Committee had identified thrust areas and presented a detailed proposal for upgradation of laboratories. It had proposed a comprehensive strategy for manpower management. With a staggering strength of 2,500 geologists and 1,000 from allied disciplines, GSI can perform wonders in the realm of geosciences. This however, can be achieved only with a visionary leadership at the helm of affairs that can facilitate GSI regaining its lost glory. Strangely, recommendations of the Expert Committee were not widely circulated. Constructive debate on the implementation part of the recommendations is the need of the hour. There is no need to take shelter under the umbrella of the Ministry of Earth Sciences. Further, primary function of Ministry of Earth Sciences is very well incorporated in the fifth point of amended charter. GSI has other nine additional responsibilities too. Proposed Ministry of Earth Sciences can't function in isolation. Active role of GSI is a prerequisite for the growth of the new ministry. Both can function effectively with dynamic communication.

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