Prokaryotic wealth

The proposal for a systematic, dedicated and target-oriented survey of our prokaryotic wealth under 'Prokaryotic Survey of India' is indeed welcome¹. However, well intended this may be, we have to be cautious about frittering away time and resources in new institutional initiatives. A national seminar was organized for assessment of the work done so far and for identifying critical gap areas by the Botanical Survey of India (BSI) and Zoological Survey of India (ZSI) under the aegis of Ministry of Environment and Forests (MoEF)². In the deliberations, 'Microorganisms' was one of the themes taken up by the ZSI task group, which emphasized upon the importance of study of taxonomy of microorganisms as a futuristic critical area and strengthening the capacity of BSI/ZSI to 'undertake survey and inventorisation of microorganisms'. Remarkably, in the concluding remarks, the Minister stressed upon the requirement to consider the future of these two organizations together. The report underlined an urgent need to undertake the assessment of diversity in microorganisms by survey and identification². The microorganism task group rightly recommended to 'develop suitable linkages with other institutions in India and abroad' as well as 'between BSI and ZSI and the university system' for realising microbial biodiversity utilization. As a continuum, the

MoEF initiated the preparation of a National Biodiversity and Action Plan supported by United Nations and Global Environmental Facility (GEF), which has resulted in the 'Microorganism diversity: strategy and action plan' document prepared by the Thematic Working Group on microorganisms. The document is available on GEF website (http://www.gefonline.org/projectDetailsSQL.cfm?proj ID=251). A gist of the report on biodiversity has been treated succinctly³.

In spite of controversies like Bt brinjal, the use of microorganisms to solve agricultural, veterinary and medical health and environmental problems has increased. The value of microbial culture collections or microbial resource centres (MRCs) in the conservation of genetic resources and collection characterization and preservation of prokaryotes and other genetic resources is well established⁴. However, the world's leading culture collections are situated mostly in the developed countries and many collections, especially in the developing countries, are not well organized and are inadequately funded. Off late, the initiatives taken by CSIR in Microbial Type Culture Collection and Gene Bank at Institute of Microbial Technology, Chandigarh have fructified in the form of an international MRC, even catering to patent deposit needs. However, the need of the hour is the support for the development of a 'culture of culture collection'. There is a critical gap in the field of expertise and training programmes in microbial taxonomy, capital intensive polyphasic identification set-up, microbial bioinformatics, microbial database management and modern MRC management systems, just to name a few. It is in this direction that impetus is needed so that fledgling initiatives already undertaken in the direction of microbial resource conservation, such as Veterinary Type Culture Collection at Hisar by Indian Council of Agricultural Research are able to fulfil their mandate in an effective manner.

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We need Microbiological Survey of India and not Prokaryotic Survey of India

Ramana and Sasikala¹ have argued that we need a Prokaryotic Survey of India mentioning that other microbial groups such as algae, fungi and protozoa are already covered under either Botanical Survey of India (BSI) or Zoological Survey of India (ZSI). I do not agree with the authors because there are meagre attempts to include algae, fungi and protozoa by BSI or ZSI to study these groups and also very few microbiologists are employed in these organizations. Hence

it should not be a Prokaryotic Survey of India but a Microbiological Survey of India. I have argued elsewhere² that microbes are neglected and are given stepmotherly treatment in survey-type studies indirectly stressing the need for such an umbrella organization to include and study different microbial groups.

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