

of time. For example, in 1990, skin lesions identified in a population in Bangladesh were traced to arsenic present in water used for domestic purposes and irrigation<sup>9</sup>.

Several causes of fish death are possible; identification of the ultimate cause is a challenge. Experiments are desirable to study mixed cultures of sulphide and sulphur oxidizing bacteria that are able to multiply in conditions of a particular lake for evolving practical methods involving the release of hardy strains as a microbiological method of converting sulphide to elemental sulphur with oxygen ( $2\text{HS}^- + \text{O}_2 \rightarrow 2\text{S}^0 + 2\text{OH}^-$ ;  $2\text{S}^0 + 3\text{O}_2 \rightarrow 2\text{SO}_4^{2-} + 2\text{H}^+$ )<sup>10</sup>. Regular monitoring of lakes for zooplankton, anaerobic bacteria, particularly of sulphate reducing bacteria, hydrogen sulphide concentration as indicators of pollution may uncover factors regulating fish population in lakes, despite the presence of both sulphate reducing bacteria and

sulphide oxidizing bacteria. This episode of fish mortality reminds us that the basic questions in ecology remain not understood: Why do some species suddenly increase in numbers while others decline? Are these natural cycles, such as those of some insects (e.g. the gypsy moth in the UK) and some plants (e.g. *Parthenium hysterophorus* in many places in India), also applicable to aquatic ecosystems?

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## NEWS

### Year of soil resource awareness

Soil is the most precious and vital natural resource, the proper use of which is important for our supporting systems and for the socio-economic development of any region. India, like many other developing countries, has made rapid strides in the production and productivity of major crops. Harnessing of soil and water resources, genetic potential of plants and other inputs in large measure, has undoubtedly succeeded in getting the country out of the 'food trap'. However, in the urgency for higher production, no serious attention has been given to long-term soil health and sustained high productivity. Some environmental problems have also cropped up. Since soil resource as base influences every aspect of our lives, it is essential to inculcate in the people the habit of studying and understanding the scientific basis of soil resource in their approach and attitude in

decision-making processes. 2005 is going to be observed as the Year of Soil Resource Awareness (YSRA) in view of celebrating 50 years of soil resource study initiated by the Government of India under Technical Cooperation Mission Project headed by (late) S. P. Roychaudhuri, a well-known soil scientist and the then pioneer of soil survey work in the country. During the year, a campaign with multiple-level activities is to be conducted across the country, reaching people at all levels. The insights and the experiences gained during the past three to four decades indicate that about 50% of the area of our country is recognized as degraded land. Crop productivity during the last 5 years is reported to be declining.

The main objectives of this mission are to make people scientifically conscious about the status and availability of soil resource in timescale, and to utilize this information

in day-to-day life, particularly in using soil resources on sustainable basis.

A variety of activities and programmes, including discussions and lectures, theme-based exhibitions, short-term refresher courses and training, etc. will be carried out throughout the year. Country-wide coverage will be done by the National Bureau of Soil Survey and Land Use Planning (ICAR) in its five regional centres, along with its Head Office at Nagpur. It is expected that an awareness of this kind will help in overcoming superstitions, beliefs, age-old practices and traditions in influencing decisions concerning appropriate land use.

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