

AT WORK ACROSS THE NATION-USGS 1993

United States Geological Survey promptly issues its Annual Report after the end of the calendar year. The latest we have received is U.S. Geological Survey Year Book fiscal Year 1993 - At Work Across the Nation presented by its Acting Director Robert M. Hirsch. The highlights of the Survey's activities of 1993 issued in 1994 (124p) are (i) mapping (ii) geological studies, (iii) water resources evaluation and management, (iv) environmental studies and (v) coordinated studies with other agencies - Federal, State, local and international.

Every passing year sees updating of mapping by revision to larger scales wherever required, use of modern cartographic techniques to better portray the results obtained, storage and dissemination of all the data collected to all the user agencies on demand (pp. 1-15). The self introspection by the organization - "Are we meeting customer needs" (p.10), must be an eye opener for our own organisations. The geological studies (pp. 16-35), dealing apart from conventional investigations on minerals and fossil fuels, lays great emphasis on "hazards". Variety of maps are supplied to all the agencies so that they can take appropriate measures well before hand to the extent possible.

The importance given to the investigations connected with Water Resources (pp. 36-59) can be gauged by the fact that whereas the overall budgetary increase for all activities between 1990 and 1993 is 20% that allotted for Water Resources is about 30% (p.106). USGS is associated with other agencies on the study of environment systems (pp. 60-66) and assisting agencies in other parts of the world as well (pp. 67-79), besides dealing with storage and dissemination of all data collected (pp. 81-89). What is heartening to note is the statement that the USGS is a people-oriented organization (p.90). It interacts even with schools (pp. 96-97). The volume contains sketch maps, photographs, tables and boxes highlighting sources of further information to those interested. The USGS has set an excellent example of how an official organization should keep the public informed of its activities.

R.V.

FUTURE POTENTIAL OF AIRBORNE REMOTE SENSING

Users of Remote Sensing products in India (mainly from laboratories of the Department of Space and its affiliates, and other Central and State Organisations) are generally familiar with the uses of Remote Sensing data, particularly in the field of Geology (mapping, mineral investigations, fossil fuels and geothermal resources) and Environment (Pollution - land, water, air and vegetation; hazards). A recent handy publication **Airborne Remote Sensing for Geology and the Environment-present and future** by the United States Geological Survey Bull. 1926, 43p., 1994 edited by **Ken Watson** and **Daniel H. Knepper**, besides highlighting the advances in these fields of study, focuses on the future capabilities in each one of the following fields like (i) Imaging Spectroscopy, Multi-Spectral Imaging and Radar in mapping, (ii) Process study, Linear-Feature analysis and Geobotany in mineral investigations and (iii) Methane imaging, High-resolution digital models and High-resolution Infrared Spectrometers in the case of fossil fuels and geothermal resources. Similar advances are briefly touched upon in the field of environment as well.

For those who are involved in R & D in these fields the Section dealing with **Advances, Limits and Barriers** in the field of Future Research in Remote Sensing (pp. 38-41) should be of interest. The few coloured illustrations demonstrate the efficacy and potential of some of these anticipated developments.

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