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Editing audit reports?

The Indian scientific community and the science audit wing of the Auditor-General's office have, more often than not, been at loggerheads. While the auditors may have tended to pursue their task with a zeal almost amounting to 'fault-finding', scientists' management of their projects/laboratories/institutions has not always been faultless. But the problem is more deep-seated than that: it lies in an unclear definition of accountability in science and in scientists' mistrust of auditors. The subject was discussed in letters published in *Current Science* recently. In a section beginning on **page 541** of this issue, G. Venkataraman reports on a recent meeting of scientists, science administrators and auditors, and provides revealing extracts from material presented at the meeting. In another article (**page 551**) P. M. Bhargava defines three components of audit of scientific activity. He also lists the problems in framing policy for such audit and provides some 'tips' for auditors.

Wood-gas to electricity

The Centre for Application of Science and Technology to Rural Areas (ASTRA) of the Indian Institute of Science in Bangalore is one of many groups all over the country working on problems of rural households and village communities. N. H. Ravindranath *et al.* of ASTRA have studied (**page 557**) the economics, performance and acceptability of a small electricity generating system that uses a diesel engine also fuelled by wood-gas. The problem was to install a decentralized power supply system sufficient for the low loads in a non-electrified village. The concept seeks to avoid the cost of transmission lines and transmission losses, and to substitute wood-gas for the expensive diesel. Besides the economic and gasifier-design aspects, the project brings to notice several other problems, such as acceptance by the village community, local management and operation, and availability of land for the forest to be raised for the supply of wood.

Boundary events

The time between the geological periods known as the Cretaceous and the Tertiary was one of the most eventful in earth's history. The best known Cretaceous–Tertiary boundary (KTB) event is a mass extinction of several land and marine forms. One of the suggested causes of mass extinction is a catastrophic event, of earthly or extraterrestrial origin. Interestingly, an anomalous enrichment of iridium, an element rare on earth but relatively common in some extraterrestrial bodies, has been observed corresponding to KTB at various locations. A well-studied vertical section in Meghalaya in India also shows an iridium-enriched layer at/near KTB and breaks in the fossil faunal sequence that are indicative of extinction of many species. In a paper beginning on **page 570**, Jagadish Pandey responds to an earlier paper that disputed his observation of faunal break in the Meghalaya sequence and the exact position of KTB in relation to the iridium-enriched layer, and reaffirms his earlier observations. Pandey also provides illustrations of Cretaceous planktonic foraminifers that purportedly show evidence of predation by gastropod larvae, and argues that the predation may have ultimately brought about (a non-instantaneous) extinction of the Cretaceous foraminifers.

Venusian atmosphere

The study of planetary atmospheres has received a big boost by the availability of *in situ* measurements obtained by unmanned space probes. The orbiting module of the US National Aeronautics and Space Administration's (NASA) *Pioneer* spacecraft probed the Venusian ionosphere and magnetosphere over several years. Using data on electron density, electron temperature and magnetic field variations obtained by *Pioneer*, R.N. Singh and Hari Om Upadhyay (**page 565**) compute electron density profiles for Venus' ionosphere and suggest that unusual variations in electron density and magnetic field observed during a particular orbit of *Pioneer* may have been caused by solar coronal events.