

## **Recommendations of the 94<sup>th</sup> Indian Science Congress**

- Energy conservation and efficient resource utilization are important for energy security.
- Cleaner technologies need to be developed.
- Coal meets with 70% of our energy requirements today, and the scenario is not likely to change over the next two or three decades. Necessary resources are available in the country. To meet the demands, the coal industry needs to be deregulated.
- Management of water resources and promoting their sustainable use is the most challenging problem.
- A note is taken of the successful operation of the 1,00,000 liters/day Low Temperature Thermal Desalination (LTTD) plant at Kavaratti, Laksh Dweep since May 2005. This is the first plant of its kind anywhere in the world. LTTD can solve the potable water problem in the coastal areas of tropical regions. The concept can also be applied to make use of hot industrial waste water. Public-private partnership should be encouraged in this exciting new development.
- There is an urgent need to upgrade our weather forecasting systems with emphasis on monsoons, as it is the key for our food security.
- Dryland and rain fed agriculture deserve a special focus.
- Second green revolution needs to be more holistic and should extend application for Science & Technology to forest conservation & management
- Sustainable protection of environment.
- Explore links between green house gas emissions and climate change and examine its impact on monsoon patterns.
- Environment concerns must be integrated into the mainstream of all our economic policies and activity.
- Natural calamities like earthquakes, tsunamis, droughts, floods, cyclones etc. deserve special attention.

- Every time a damaging earthquake occurs, we are clueless. Study of earthquakes should be institutionalized. Recommendations to this effect have been made for past several decades, but somehow this has not happened. Suitable micro zoning needs to be carried out and building codes need to be implemented, initially covering all major cities and gradually expanded to cover the entire country.
- Steel production should be stepped up. Present practice of exporting large quantities of iron ore should be discouraged.
- Over thousands of years, mining has been carried out at the surface in India. In spite of very powerful geophysical tools available for sub-surface investigations, these have not been properly implemented. As a matter of fact, India remains basically unexplored. Integration of appropriate geophysical techniques in our exploration for atomic minerals, metals, and fossil fuels is highly desirable.
- A three pronged strategy to improve the S&T scenario in India needs – (i) to raise the quality and number of trained individuals; (ii) to deepen and widen the valorization of our science outputs; and (iii) to improve the quality of our environment.
- Geological Survey of India is one of the oldest and very important departments of country. It needs to be liberalized from bureaucracy and given a place of pride, and should rightfully become a part of the newly created Ministry of Earth Sciences.
- A center for Himalayan Glaciology and Ecology needs to be set up.
- Geology should be taught at the school level. Outreach programs to educate the common man about the steps to be taken to safe guard our Planet Earth need to be strengthened.
- Public education and understanding the environmental challenges we face are to be strengthened.
- Upgradation of universities for improving the standards of research.
- In this Science Congress, several Institutions/Organizations have been brought together as Knowledge Partners. This effort should continue and be strengthened to address Planet Earth related issues nationally and globally.