

consumption, use of mass transit systems, developing alternative energy systems such as air, solar and wind and most importantly improvements in fossil fuel burning technology. The important impacts of global warming include, increase in sea level, melting of glaciers, destruction of the ozone layer in the atmosphere, all of which will have significant impact on earth processes and would severely affect the human population.

The children also participated in the poster presentations which were adjudged by a panel of experts. Many of these posters were on the greenhouse effect and global warming. All posters were of very good quality and the experts appreciated the efforts of the students and teachers involved. The workshop was concluded with an interactive session which was extremely successful. The children raised several questions on the talks delivered and also on related aspects. The response of the children was very good and the enthusiasm shown was truly appreciated.

A survey was conducted at the end of the workshop and it was generally felt that the school curriculum should include the earth science as an essential course at

an early stage. The coverage of earth science in school education is very poor and classical at this stage and the modern concepts such as resource management, climate systems, natural hazards etc. are not integrated in the curriculum. In essence an 'Earth System Science' education is desperately needed at school level to generate a high degree of awareness on earth processes and their relationship with man and environment. Apart from classroom teaching, the audio-visual aids help enormously to understand the earth's processes and to think positively as to how to save the earth and its environment from degradation. This is not just a scientific need but a social responsibility. All of them welcomed future workshops like this and some of the suggested themes include river pollution, multi-purpose projects, resource management, oceans, earth movement etc. It was also felt that a larger number of children should be given an opportunity, particularly from rural areas, to participate in such workshops.

Indian Institute of Technology  
Kanpur – 203 016  
Email: rsinha@iitk.ac.in

RAJIV SINHA

## THE 2<sup>nd</sup> UNESCO INTERNATIONAL CONFERENCE ON GEOPARKS

A five-day international conference on the above topic was organized during 17-21 September 2006, by UNESCO in association with the Geological Survey of Northern Ireland and several other agencies, at the Waterfront Hall in Belfast. Participants from 40 countries attended the conference, wherein 90 papers were orally presented, apart from 28 poster presentations. Both the oral and poster presentations were made under ten sub-themes viz. *geoparks-the economic benefits; geoparks and their role in the protection of geological heritage; marketing geological heritage to the public; how to make a successful geopark; geoparks and tourism; geoparks and geosites-a twin-tracked approach to geological heritage; geoparks and public outreach; presentation of new and aspiring geoparks; integrating geodiversity into protected landscape conservation policy; and geoparks-future direction and vision*. Apart from these sessions, a total of eight workshops ran simultaneously across two afternoons on eight themes viz. *geoparks-the economic benefits; geoparks and geological heritage-sustainable site management; marketing geological heritage to the public; building a strong Global Geoparks Network; how to achieve*

*membership of the European and Global Geoparks Network; visitor guide services within geoparks; geological heritage-an example from Great Britain (RIGS); and geoparks & World Heritage*.

The presentations were of three different categories viz. successful stories of geoparks around the globe, which are currently either members of a national network or the European Geoparks Network (EGN) or the Global Geoparks Network (GGN); geoparks which are currently in the preparation stage of applying for membership of either EGN or GGN; and certain localities which have the potential of being converted into successful geoparks. The author has presented two papers in the said conference, one paper on the prospective World Heritage Site Majuli (the world's largest inhabited river island) and the other on a conceptual 'Energy Heritage Geopark' in the Tinsukia district, both the localities being from Assam.

The 'geopark' concept, which has its origins in the year 2000 in Europe, is a rapidly growing concept, due to a growing consciousness among humankind worldwide for protecting nature, especially georesources. But geoparks are not just about conservation of landscapes and

rocks – they are also about people. Apart from demonstrating methods for excellence in geoconservation, geoparks also seeks to communicate geoscientific knowledge to the public through various popular modes (i.e. geoscience popularization) and also stimulate economic activity and sustainable development through geotourism. Considering its unlimited educational as well as economic significance, the 'geopark' concept was given due recognition by UNESCO in 2004, which has resulted in the birth of the GGN. Currently 50 geoparks from all over the globe are members of the GGN, and several others are currently finalizing their applications for obtaining membership of the same.

In the Asian region, China is currently the leader in the 'geoparks' movement. The country has a total of 138 national level geoparks. Initiatives have also been taken in Malaysia, Japan, etc. to set up national geoparks. It is high time that India also begins to move in this area, given the

fact that enormous potential exists in India, in terms of its geodiversity, biodiversity and cultural diversity. Premier organizations like the different survey organizations of India (GSI, ASI, etc.), the Ministry of Earth Sciences, the Ministry of Tourism and Culture, the Earth System Science Division of DST, various NGO's, academicians, and all other stakeholders should come forward to initiate a 'geopark' movement in India. The Geological Society of India, which gives importance to geoscience popularization, can also take a lead role in this process. Through this write-up, I would like to request all individuals interested in the 'geopark' concept to evolve a networking mechanism, so that desired goals can be achieved at the earliest.

*Department of Geology*

MANJIT KUMAR MAZUMDAR

*Pragjyotish College*

*Guwahati – 781 009, Assam*

*Email: mmazumdar2003@yahoo.co.in*

## NATIONAL SEMINAR ON ADVANCING FRONTIERS IN GEOCHEMISTRY THROUGH UTILIZATION OF EARTH RESOURCES

The above national seminar was organized under the joint auspices of the Geological Society of India, Bangalore, the National Geophysical Research Institute (NGRI) and the Academy for Science, Technology and Communication (ASTC) on 20<sup>th</sup> October 2006 at the BM Birla Science Centre, Hyderabad, with the objective of highlighting the advancing frontiers in geochemistry and the prudent utilization of earth resources with special reference to gold, diamond, bauxite and uranium deposits.

Inaugurating the one-day seminar, Shri J. Harinarayana, Chief Secretary, Government of Andhra Pradesh, highlighted the need to educate the general public on the societal benefits of mineral exploration and judicious mining. He stressed the need for the geoscientist to become a good communicator so as to dispel the misconceptions pertaining to mining and its impact on the environment among the people. He said that the government is taking adequate care of the environmental issues before awarding mining licenses to different companies.

Earlier, Dr. V. Balaram of NGRI, welcomed the distinguished gathering and gave a brief account on how this seminar was conceived and its relevance under the present day scenario. He thanked various R&D Earth Science and Mining Organisations for their whole-hearted support in organizing this important event.

Dr. B.G. Sidharth, Director, BM Birla Science Centre, presided over the function and stressed on the need to properly inform the public on the societal benefits of mineral exploration and mining to meet the ever increasing energy and other demands of the country and dispel the misconception and fears of the people. A souvenir containing the programme schedule and full papers of the invited speakers was released on this occasion by Dr. V.P. Dimri, Director, NGRI, Hyderabad.

Shri R. Gupta, Chairman & Managing Director, Uranium Corporation of India Ltd., Dr. Anjan Chaki, Director, Atomic Minerals Directorate for Exploration and Research and Shri V.D. Rajagopal, Director, Mines and Geology, Government of Andhra Pradesh, graced the occasion as Guests of Honour. Dr. Gupta spoke at length on the Tummalapalle Uranium Prospect in Cuddapah District, and the Lambapur Uranium prospect in Nalgonda District both in Andhra Pradesh, the various extraction techniques, their flow sheets and the mining methods to be employed. He also opined that alkali leaching is better than acid leaching. Dr. Anjan Chaki stressed the urgent need for discovering new Uranium deposits, using integrated geological, geochemical and geophysical tools to meet the increasing energy demands of the country, and highlighted the importance of mining strategic minerals