WELCOME CHANGE IN POLICY - AVAILABILITY OF GEOLOGICAL MAPS

The British Geological Survey (BGS) in keeping with the changing times has decided to make available geological maps free of charge. The following news extract from 'Geoscientist', v 18, no 6, p 6) will be read with interest:

"Since July 2007, BGS's GB bedrock and superficial deposits digital map data at 1:625 K scale have been available entirely free of charge for non-commercial use (and not even the need to sign a license agreement) through the BGS website (http://www.bgs.ac.uk/products/digitalmaps/data_625k.html). These attributed vector data (available in both ESRI and MapInfo GIS formats) are proving very popular, and we encourage customer feedback through using bgsdata@bgs.ac.uk. DrGMAP-GB625 data-sets can also be used free of charge for commercial innovation purposes and mash-ups (on condition that we are informed should a commercial opportunity arise)."

"In June 2007 we completely overhauled our policies to allow entirely free of charge re-use of BGS materials (including photographic images) for teaching, academic, personal and not-for-profit uses, subject to appropriate acknowledgement (see http://www.bgs.ac.uk/about/copyright/published.html for details). Many Higher Education Institutions (HEIs) are jumping at this new opportunity to use BGS materials in their teaching and research programmes."

"Finally, if your needs and interests lie in secondary and primary education, there is a wide range of free resources available from the award-winning education and popular geology section of the BGS website at http://www.bgs.ac.uk/education/home.html."

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ACTIVITIES OF THE NORTH INDIA CHAPTER OF THE GEOLOGICAL SOCIETY OF INDIA: POPULARIZING GEOLOGY

The North India Chapter of Geological Society of India, time to time, organized invited lectures to emphasize the role of Geology and fascinating career offered by the subject for those who want to experience adventure in life by exploring the mother earth and its immense treasures buried inside the rocks. As a part of lecture series, one such lecture was organized in the Department of Geology, Banaras Hindu University, Varanasi on 11th July 2008. Dr. K. R. Gupta highlighted the sustained efforts and leading role of the Geological Society of India in bringing Earth Science closer to people, particularly the students aspiring for better career.

An invited lecturer on "Sedimentological Evolution of the Stuttgart Formation of Cenomanian age, Central Germany, and its comparison with the modern Ganga Plain of India" was delivered by Dr. U.K. Shukla of Geology Department of Banaras Hindu University, Varanasi. The Stuttgart Formation of the Middle Keuper (Upper Triassic), also referred to as Schilfsandstein, is one of the most discussed lithostratigraphic units of the German Triassic. Biostratigraphically the Stuttgart Formation is Carman (Athan) in age. The formation is widespread throughout the intracontinental Central European Basin and is 20 m to more than 50 m thick, elongate and anastomosing, sandstone-rich bodies that are generally arranged in a NNE-SSW direction. Between the sand bodies there are areas of several kilometre width, having thicknesses from a few meters up to some 20 m that are dominated by shales. Faces and thickness distribution seem to be largely controlled by the syn-sedimentary subsidence pattern. The sandstones of both facies are mostly fine to medium grained and relatively well sorted throughout the basin. The direction of cross-bedding is generally SSW, indicating a source area to the north of the Central European Basin. The formation is under- and overlain by highly evaporitic successions and seems to represent a more and period.

Outcrops and boreholes of the Stuttgart Formation have been studied in Central Germany (Thuringia) and South Germany (Franconia). In Thuringia, the succession is 30 to 50 m thick and characterized by sandstone to silt-mudstone alternations that can be divided as number of lithological associations comprising varied lithofacies. This sequence is product of sedimentation in channels and interchannel areas under pronounced influence of syndepositional climate and tectonics. These allocyclic forces influenced the base level and autogenic processes of the channels inducing channel metamorphosis, abandonment and conversion into shallow lakes. Occasionally, channels were meeting with shallow lakes producing wave modified lake delta deposits. Some of the channels were incised and tectonically modified. Three climatic phases starting from humid monsoonal in the beginning to dry in the middle part and humid with pronounced draughts in the final stages of Schilfsandstein sedimentation have been identified.

The Stuttgart Formation is compared with modern Ganga Plain, a part of Indo-Gangetic Foreland Basin System of India, located in monsoonal belt to explain the intricacies of sedimentation and incision of channels. Ganga Plain shows similar geomorphic setting where channels are incised in to interfluve areas evolving independently from contemporary channel processes. Near Varanasi, River Ganga is draining through fault plain and flowing to NE. Incision of Ganga seems to have taken place at about 40 Ka ago.

In contrast, the Stuttgart Formation in South Germany is some 15 to 30 m thick and consists of fluvial and estuarine sediments, which are unconformably entrenched in underlying shales. Sand
bodies in the lower part exhibits bipolar herringbone cross-bedding, sigmoidal bedding with double mudstone drapes, tidal bundles and polymodal palaeo-currents. These structures suggest intertidal bars and tidal channels dominated by microtidal activity towards an estuary mouth beyond the zone of turbidity maxima. Appreciable wave effect and wave induced currents were instrumental for sedimentation too.

The lecturer was well attended and discussed. Many interesting questions arose regarding allogenic control and sequence stratigraphy of continental systems. The lecture was concluded with a vote of thanks given by Prof. Jai Krishna, Head of the Department of Geology.

Drinking water and food security is vital for rural prosperity. But reportedly two thirds of the population of the country is food starved or suffering from severe drinking water shortage. Water scarcity is at the root of this crisis, more so in rain deficient areas. In this context the two day national seminar on Drinking water and Food security through optimum use of groundwater, rainwater harvesting and crop-water planning held at K.H. Patil Krishi Vigyan Kendra, Hulkoti in Gadag district, Karnataka on 29-30th April, 2008, assumes significance. The seminar was organized by the Geological Society of India in collaboration with Karnataka Jai Biradari, Karnataka Mines and Geology Department and Central Ground Water Board. It focused on all issues of water management in hard rock areas, innovative and indigenous water harvesting techniques, and aimed at transfer of knowledge to grass root levels. The unique feature of the seminar was Farmers Interactive Training Session, and invited talks from eminent scientists and experts. It was a pioneering endeavour of the Society to organize this interdisciplinary seminar on such a crucial issue bringing together hydrogeologists, agronomists, agricultural engineers, hydrologists, economists, planners, journalists and farmers. The seminar was attended by 82 enlightened farmers, and 100 other delegates including NGOs and Self Help Groups.

The inaugural session on 29th April 2008 was presided over by S.V. Srikantia, Vice President of the Geological Society. Welcoming the delegates R.H. Sawkar, Secretary, Geological Society of India, informed that the seminar was part of the ongoing Golden Jubilee celebrations of the Society. One of the objectives of the Society has been to promote research in geosciences including hydrogeology. After the ceremonial lighting of the lamp inaugurating the seminar, Chiranjeevi Singh, formerly Additional Chief Secretary of Karnataka, released a Souvenir brought out on the occasion by the Society. In his address Singh affirmed that food security means access to food and drinking water for all people at all time. This needs optimal utilization of groundwater and rainwater in the drought prone hard rock areas like Gadag district suffering from endemic water and food shortage. Singh mooted the idea of Model Special Agricultural Zone in Gadag district dealing with all schemes relating to water, seed, food, horticulture etc, in an integrated manner for all round development. Prof. G.K. Veeresh, formerly Vice Chancellor, and Chief Guest, discussed about protective irrigation in rain-fed areas, and national watershed development program emphasizing ecofriendly organic farming. S.V. Srikantia reminded all of the traditional water harvesting systems which only can diminish intensity of drought.

The inaugural session was followed by the first technical session on Groundwater Resource and Monitoring chaired by S. Das and K.M. Najeeb. Shakeel Ahmed spoke about designing of groundwater monitoring network for surveillance of groundwater regime. T.M. Hunse presented the groundwater management scenario in Karnataka. Srikanth Murthy illustrated the critical situation in Gadag district through time series analysis of groundwater levels.

In rain short areas like Gadag district surface water is scarce and groundwater is over exploited. Only conjunctive use of rainwater, surface water and groundwater along with judicious crop planning can ensure sustainable food production and drinking water availability. The post lunch session on land, soil and water management,