



**Fig.2.** (a) Close-up of Beach Rock showing Gritty and Coarse grained character at Chidyatapu, South Andaman. (b) Beach rock exposure Neill West Coast Section, Neill Island. (c) Beach rock exposure Neill West Coast Section, Neill Island.

(Holocene) in the Neill West Coast Formation gives an insight into the depositional events right from late Pliocene to Holocene and hence useful for precise and meaningful analyses of the Neogene Andaman basin.

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### FIRST INTERNATIONAL EARTH SCIENCE OLYMPIAD, SOUTH KOREA

Two Indian students, Ritesh Singh (K.V. Pendharkar College, Dombivli) and Vijay Suralkar (*Kendriya Vidyalaya, Bhandup*) of class XI won Silver Medals at the first ever International Earth Science Olympiad (IESO) held in Daegu, South Korea between 7<sup>th</sup> and 14<sup>th</sup> October, 2007. Prof. R. Shankar, Mangalore University, National Co-ordinator

for IEOS, led the Indian delegation. Dr K.S. Jayappa, Mangalore University and Dr H.S.M. Prakash, Geological Survey of India, Bangalore were the resource persons at a camp organised to train the students at the Homi Bhabha Centre for Science Education, Mumbai, which is the nodal agency for conducting Science Olympiads in India.

Twenty four participants from seven countries (India, Indonesia, Mongolia, Philippines, South Korea, Taiwan and USA) participated in the IESO which consisted of written and practical tests with questions on Geology, Oceanography, Meteorology and Astronomy. Team leaders of different countries acted as members of the International Jury which discussed and finalised the question papers and evaluated the answer sheets. Students from Taiwan and South Korea won gold medals, silver medals were won by students from South Korea, Taiwan, USA and India. Participants from other countries were awarded bronze medals. An unique feature of this Olympiad is the field excursion near Yeongwol which enabled students to examine various rock types, structures and fossils belonging to the Cambrian-Ordovician Choson Supergroup and the Carboniferous-Triassic Pyongan Supergroup. Korean geoscientists and team leaders of different countries helped students understanding and interpreting the structures and fossils in terms of depositional environments. There was a one-day tour to the World Cultural Expo and to the Pohang Steel Company, the fourth largest in the world.

Olympiads are competitions conducted for secondary school students every year in different branches of science. The International Geoscience Education Organisation (IGEO) adopted IESO as one of its major activities at its Council Meeting held in Calgary, Canada, during August

2003. The objective of IESO is to promote Earth Science Education worldwide and forge friendship among students from different parts of the globe. In a subsequent meeting held in Seoul, South Korea during November 2004 representatives of 10 countries examined the Earth Science curriculum of each country and discussed the modalities of conducting the IESO. An Organizing Committee was established to conduct the first IESO in South Korea, 2007. Further details of IESO from <http://ieso.or.kr>

It is hoped that over the years, Earth Science Education, particularly at the school level, would get highlighted, and there will be better social and public awareness of the importance of Earth Sciences in view of the changing climate, depletion of natural resources, the rising oil prices and frequent recurrence of natural disasters. The launch of the first Earth Science Olympiad in 2007 is in line with the United Nations' declaration of 2008 as the International Year of Planet Earth ([www.yearofplanetearth.org](http://www.yearofplanetearth.org)) when programs would be launched the world over both in terms of research and public understanding of Earth Sciences.

The second IESO would be held in the Philippines (September 2008) and the third in Thailand (August 2009).

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## GEOLOGICAL PARAMETERS IN WATER SHED DEVELOPMENT\*

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### Extended Abstract

Water Shed Development (WSD) programme is the backbone of any rural development activity. Right from the time of selection of a site for the water shed, to its total implementation, a process spread over five years, is a period of intense activity. WSD is a part of the DPAP (Drought Prone Area Project) IWDP (Intensive Waste Land Development Project) schemes. Amount of rainfall, the geographic or topographic profile of a proposed water shed area, determine the success of the project. Besides these, soil profile and the nature of the bed rocks are the principal parameters in the successful retention of water for

improving the soil moisture and the improvement in the level of the water table. The bed rock, its nature, compactness, grain size, porosity, permeability and structural features, both depositional like, strike, dip etc and enforced features like joints, shears, fractures, folds, faults decide the ultimate water holding capacity. Water harvesting structures have to be in consonance with the nature of the bed rock. Ultimately the success of a WS depends on the bed rock and the overlying weathering profile. Geological parameters are very important in WSD. The three case histories enumerated demonstrate the same.

\*Gist of the lecture delivered at the monthly meeting of the Geological Society of India, Bangalore on 29 August 2007