



Government of India
Geological Survey of India

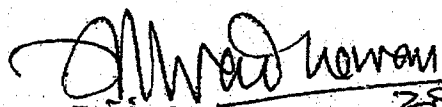
Kolkata, 28th May 2014

No. 005/01/Resol./Varkala/46F/2014

RESOLUTION
On
DECLARATION OF VARKALA CLIFF SITE AS GEOHERITAGE SITE

1. Geological heritage sites provide the impartial and well preserved record of the physico-chemical and biological processes that were responsible for shaping the evolutionary history of the earth. They need to be regarded as invaluable legacy that not only needs to be conserved, but also publicised through a conscious effort so that their significance and the need to protect them from the natural and more importantly anthropogenic forces of destruction is understood by the geoscientists as well as the population at large.
2. The optimal and sustainable approach for conservation of Geological Heritage sites that is being long practiced in the world is to establish geoparks (that is a nationally protected area containing one or a group of geological heritage sites of particular importance, rarity or aesthetic appeal) and to make them special landscape areas for protecting earth's legacy.
3. The development of Geoparks needs to be done through a three pronged approach involving Conservation, Education and Geotourism. Under 'Conservation', the management authority of Geopark needs to ensure adequate protection measures in consultation with collaborating geological surveys, academic institutions and/ or relevant statutory bodies in accordance with local traditions and legislative obligations. Within the realm of 'Education', these sites need to be used as research bases for important geoscientific issues, educational field bases for Earth Science students and scientific popularization bases for the general public. In the sphere of 'Geotourism', Geological Heritage sites can support local economies and promote local employment that would further sensitize local governments as well as local inhabitants towards the significance of geoheritage conservation and the sustainable source of livelihood which it can create.

4. In Indian context, Geological Survey of India has the necessary mandate to identify and delineate areas of such unique geological significance. Accordingly, the Geological Survey of India has identified many sites of geological importance and exceptional geomorphic expression/ landscapes. The Geological Survey of India has till date declared twenty six sites as National Geological Monuments across the country. Recently, a piece of legislation on "Geological Heritage Sites (Declaration, Conservation, Protection and Maintenance): Act 2014" has also been prepared which once enacted would formally accord the status of "Geological Heritage Sites" to already declared and newly identified sites of geoscientific importance.
5. Amongst the newly identified sites of Geological Heritage is the "Varakala Cliff section" in Thiruvananthapuram district, Kerala.
6. The Varakala Cliff is located at Varakala, a small coastal town in Thiruvananthapuram district, southern Kerala and is about 50 km northwest of Thiruvananthapuram. It is the one of the few locations in southern Kerala where a spectacular coastal cliff (with over 6 km length and 15 - 40 m height) with high aesthetic value is seen in the neighbourhood of a sandy beach. The lithological sequence exposed in the cliff section with gentle westerly dips is also a "type section" of "Warkalli formation"; a marine/ estuarine sedimentary sequence of sand with carbonaceous sandy clays, plastic clays, variegated clays and impersistent seams and lenses of lignite of Mio-Pliocene age (1.5 - 23 million years before present). The sedimentary sequence is capped by laterite.
7. The Geological Survey of India resolves to recognise and declare this site as a "Geoheritage site" not just for the aesthetic value of the landscape, but also for the fact that it is the one of the best well exposed on-land records of Tertiary sedimentation in south-western India.
8. As the site is under appreciable threat from the natural forces of erosion as well as other causes of degradation, the site needs to be protected, conserved and maintained through the time tested practice of establishing Geopark so that the geological treasure is neither disturbed nor destroyed and is instead protected, conserved and valued for posterity owing to its geoscientific significance and geotourism potential.


28/5/14
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