Inventory and Assessment of Geosites for Geotourism Development in the southeastern Lake Tana region, northwest Ethiopia

Getaneh Addis Tessema¹,², Jan van der Borg¹, Amare Sewnet³, Anton van Rompaey¹, Enyew Adgo⁴, Jan Nyssen⁵, Kerebih Asrese⁶, Steven Van Passel⁷, and Jean Poesen¹

¹Department of Earth and Environmental Studies, KU Leuven, Leuven, Belgium
²Department of Tourism and Hotel Management, Bahir Dar University, Bahir Dar, Ethiopia
³Department of Geography and Environmental Studies, Bahir Dar University, Bahir Dar, Ethiopia
⁴Department of Natural Resource Management, Bahir Dar University, Bahir Dar, Ethiopia
⁵Department of Geography, Ghent University, Ghent, Belgium
⁶Department of Social Work, Bahir Dar University, Bahir Dar, Ethiopia
⁷Department of Engineering Management, University of Antwerp, Antwerp, Belgium

Abstract

Geotourism is a niche type of sustainable tourism which focuses on geological and geomorphological features of an area, and associated culture and biodiversity. Geosites are important resources for geotourism development. The southeastern Lake Tana region in Ethiopia possesses several geosites that are of interest to both the scientific community and tourists having a broad interest. The area is also part of an important economic corridor and tourist route in the country. Currently, only the Blue Nile Falls, Lake Tana and its island monasteries are being visited. The objective of this study is, therefore, to inventory geosites in the southeastern Lake Tana region and to assess their potential for geotourism development. To this end, a geosite inventory and assessment methodology was developed. The criteria, indicators and sub-indicators used for assessment were prepared based on a review of publications. The indicators used for assessing the potential of geosites are scientific, educational, scenic, recreational, protection, functional and ecological values. A first list of 114 potential geosites have been inventoried based on stakeholder interviews and a review of relevant documents in the study area. Further screening and clustering resulted in a final list of 61 geosites. Among the major newly proposed geosites are viewpoints; waterfalls; hot springs; a large flood plain; caves and cave churches; rock-hewn churches; a shield volcano; lava tubes; and volcanic plugs, cones and columns. Quantitative assessment of the potential of these geosites revealed that clustered geosites received relatively higher scientific, scenic and recreational value scores. For sustainable development of geotourism in the Lake Tana area, it is important to improve access to geosites, and establish visitor centers and accommodation facilities at selected sites.
