

Seismicity of Botswana for the Period 1950-2016

An earthquake catalogue spanning more than six decades of instrumental observations has been assembled for Botswana and adjacent regions. Whilst the level of local seismicity in Botswana is generally low, moderate to large earthquakes have been recorded in the Okavango delta region (ODR), the largest event of which was observed on 1952 and had a local magnitude of 6.7. The motivation in creating a national seismicity database is not solely for academic research but also of further paramount practical significance in providing a wealth of information that enables seismologists and engineers to better assess the distribution, frequency, and severity of seismic hazards throughout the country for contribution in the establishment of seismic source zones and, social and economic disruption associated with the occurrence of earthquakes. The Botswana Seismological Network (BSN) was established by the Botswana Government through the Department of Geological Survey (DGS) as a national earthquake surveillance facility to undertake a long-term earthquake monitoring across the country. The seismic network data will be used in developing a comprehensive probabilistic assessment of the seismic hazard in the country to enable comprehensive ranking of earthquake-related threats and disaster risk reduction to provide input in the risk management decisions.

Primary author: NTIBINYANE, Onkgopotse (Botswana Geoscience Institute)

Presenter: NTIBINYANE, Onkgopotse (Botswana Geoscience Institute)

Track Classification: 1. The Earth as a complex system