



MEDIA STATEMENT

Re: Response to social media posts published by “Earthquake News Everyday” on earthquakes probability forecasting in South Africa

The Council for Geoscience (CGS) would like to bring to the awareness of the public, alleged earthquake probability forecasting statements that were published by an online media outlet, "Earthquake News Everyday" between 3 and 5 December 2024. These statements ought to be approached with caution due to the use of determination methods which are not referenced by reliable and credible sources.

The statements mention specific magnitudes (6.0 to 8.0) and regions in the areas of the Indian Ocean, Pacific Ocean, and surrounding countries, including South Africa. While these regions are seismically active, predicting specific magnitudes and exact locations within a short timeframe (15-20 days) is not scientifically plausible.

CGS Chief Scientist, Dr Eldridge Kgaswane, explains: “as it stands, scientists cannot predict the exact time, location, and magnitude of individual earthquakes with high accuracy as claimed in those articles. Earthquake forecasting, which estimates the probability of earthquakes occurring in a region over a period of time, is possible, but it is not precise”.

The prediction of a strong earthquake (6.5-8.0 magnitude) within a specific time frame (December 5-20, 2024) is unsubstantiated and not based on any scientifically recognised earthquake forecasting method.

The statements use overly broad language, mentioning multiple countries and regions without providing specific details or evidence.

Dr Kgaswane further adds: “the possibility of underwater volcanic eruptions is also mentioned, and while underwater volcanic activity could occur, predicting such events with precision is also challenging”.

Lastly, the statements further indicate that the prediction claims being made are based on "4550+ earthquakes & Tsunami observations around the world", however, it does not cite the sources of these



observations and therefore, lacks scientific credibility. “A scientific claim of any kind must be substantiated by credible scientific research”, said Kgaswane.

The public is therefore urged to exercise caution and sound judgement when reading, circulating and sharing such information as it could invoke panic and alarm to those who consume it. Furthermore, the public is also encouraged to fact-check information related to seismic activities with the CGS as it is the authority mandated to study, observe and record seismic activities in the country.

The Council for Geoscience is a national science council established in terms of the Geoscience Act (Act No. 100 of 1993), as amended, to operate and maintain the South African National Seismograph Network (SANSN) with a primary aim to monitor seismic events across the country and beyond. The information obtained from the stations is quintessential to advise society and guide future infrastructure development.

Issued by the Council for Geoscience

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