

Series Analysis of Seismic Events Worldwide (2000-2012)

One of the main missions of the Capacity Building and Training Section of CTBTO is to publish Monthly Performance Reports timely and correctly. The report is based on all Reviewed Event Bulletins which were reviewed by the analysts for each month. These bulletins have the information such as origin times, locations, and magnitudes of the events, which could be used as a basic element for the study of the global seismicity. In this context, a time series analysis with the seismic events occurred worldwide from A.D. 2000 to 2012 was carried out. Totally 382,662 events have occurred in this period and the average number of events is about 81 events each day. The numbers of events per year has slightly increased recently, but this can be regarded as due to the newly installed IMS stations. The released energy is relatively high both in 2004 and 2011. Although no additional trend was found yet, data over a longer period might yield different results. The analysis according to the seismological region was also performed. Each b-value of the Gutenberg-Richter relation was compared in 50 regions. The value is the highest in the Fiji Island Area and the lowest in the Pacific Basin.

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