

## Lightning incidents in Mongolia

### ABSTRACT

This is one of the first studies that has been conducted in Mongolia on the distribution of lightning incidents. The study covers a 10-year period from 2004 to 2013. The country records a human death rate of 15.4 deaths per 10 million people per year, which is much higher than that of many countries with similar isokeraunic level. The reason may be the low-grown vegetation observed in most rural areas of Mongolia, a surface topography, typical to steppe climate. We suggest modifications to GomesóKadir equation for such countries, as it predicts a much lower annual death rate for Mongolia. The lightning incidents spread over the period from May to August with the peak of the number of incidents occurring in July. The worst lightning affected region in the country is the central part. Compared with impacts of other convective disasters such as squalls, thunderstorms and hail, lightning stands as the second highest in the number of incidents, human deaths and animal deaths. Economic losses due to lightning is only about 1% of the total losses due to the four extreme weather phenomena. However, unless precautionary measures are not promoted among the public, this figure of losses may significantly increase with time as the country is undergoing rapid industrialization at present.

**Keyword:** Lightning; Mongolia