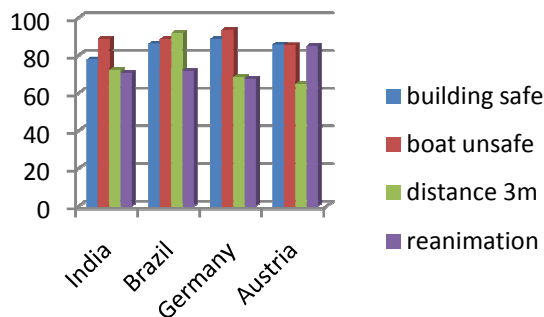


Can lightning really hit you? – Risk preparedness surveys in India, Brazil, Germany, and Austria

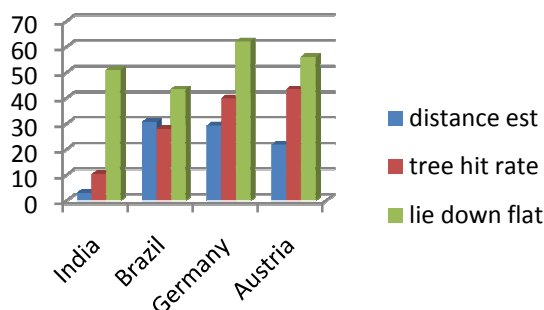
Keul, A.G., Salzburg University, Austria; Sharma, S., Kohima Science College, Nagaland, India; Nunes, L.H., UNICAMP, Campinas, SP, Brazil



Campinas lightning 2009 (Chaval)



Well-known protection items, %



Less well-known protection items, %

“Lightning is the second most efficient storm-related killer” (Rakov & Uman, 2003). As a frightening dread risk and complex threat, random, not anticipated, lightning is a public-health-relevant topic. Security over-optimism and simple “lay theories” cloud the issue.

As part of the first round of the **International Severe Weather Survey**, lay people in Nagaland/India (100), São Paulo state/Brazil (104), Bavaria/Germany (80) and Austria (133) were interviewed about their lightning knowledge and preparedness. On global lightning maps, India and Brazil show higher, Germany and Austria lower CG flash frequencies. **Does the objective hazard and risk level shape the subjective lightning interest, knowledge, and preparedness?**

In a **risk assessment** task with meteorological hazards, lightning was regarded a main risk in India and Brazil, and a medium risk in Germany and Austria. **Personal exposure:** 58% in India, 68% in Brazil, 40% in Germany, and 62% in Austria had seen nearby CG lightning. 4% in India, 28% in Brazil, 23% in Germany, and 12% in Austria had experienced lightning damage.

Meteorological lay knowledge, tested with several items, was low in India, medium in Brazil, and high in Germany.

Lightning-specific knowledge was tested by a series of items. It was found that **some relevant items are well-known** in all countries – that buildings offer safe shelter, boats do not, that because of flashover risk, a safe distance should be kept from conductors and exposed objects, that reanimation should start after a person was directly affected. However, **other safety-relevant items are not well-known** – only up to 30% can make a correct distance estimation from the time lag between lightning and thunder, 60-90% believe that CG lightning picks out favorite tree types, and about every second person does not know what to do in case of unsheltered lightning exposure in the open.

Only in India, more educated people assume a higher lightning risk. As lightning protection is no school topic, **mass media information** is the typical source of public lightning education. Media should point out possible consequences and repeat useful protection information every lightning season.

Contact: alexander.keul@sbg.ac.at