

Unrecognized problems in education method for natural disasters: why cannot citizens understand the earthquake magnitude well?

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In spite of repeated explanations, Japanese citizens have not understood well the meaning of earthquake magnitude as well as the difference between magnitude and seismic intensity yet. This is because many of them recognize the term "earthquake" only as trembling of the ground and cannot image the source faulting. To improve this situation, specialists should limit the term "earthquake" to the ground motion and use some other word (e.g. "source rupture") for the source process. Specialists should also use the explanation that magnitude reflects the area of a source fault, and show a numerical value of fault size corresponding to each magnitude value. Such explanation gives better understanding of magnitude to many citizens, even if some of them cannot understand the concept of energy.