Why do we need an aftershock forest for seismic disaster mitigation?

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Hazard and risk modelers are targeting several vastly different stakeholders or stakeholder in their model results: the scientific community, governmental institutions, engineers and the larger technical community, and finally the public.

Aftershock forecasting is one of the most successfully modeled in the scientific community but not well implemented in society. The 2016 Kumamoto Earthquakes were associated with many strong earthquakes. The largest quake with a magnitude (M) 7.3 occurred on April 16, 2016, which was 28 hours after the M6.5 earthquake. The aftershock forecast issued by Japan Metrological Agency (JMA) immediately after the M6.5 event said very high probability, 3,000 times as high as usual probability. However this information might bring safety information for public because the name of “an aftershock” was misunderstood by public so that a coming quake would be smaller than the previous one. As a result, JMA has stopped issuing probabilistic aftershock forecast in a week after the strong event, but just says that there will be a strong ground motion and advises people to prepare the strong motion.

We will discuss how we should communicate such risk information to reduce natural disasters.

Keywords: Kumamoto Earthquake, Aftershock, Hazard forecast
Improvement of people's disaster image and awareness through disaster knowledge and lessons learned from social surveys –the 1995 Hanshin-Awaji(Kobe)EQ to the 2016 Kumamoto EQ

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In this study, we focus on the results of the survey to the victims of the Kumamoto earthquake that was carried out in the fall of 2016 as a flash report. We compare the result of the survey of Kumamoto Earthquake with other surveys about Changing in the Victims’ residence after the disaster and life recovery process using recovery calendar method. Moreover, we also propose ways of risk communication between experts and citizens such as how these results of surveys contribute to improving people’s capacity for imagination for disaster and awareness that disasters affect everyone.

Keywords: awareness that disasters affect everyone, random sampled social survey, life recovery process, housing reconstruction, “life recovery calendar” method
Recovery Calendar (the 1995 Hanshin-Awaji(Kobe) EQ Survey in Jan./2003 and Jan./2005)
As extreme climatic events increasingly dominate the global news cycle, there is a growing need to understand their origins and impacts. A debate rages over whether weather events are the result of climate change or simply occur in its context. The introduction to 'environmental progression' is an attempt to tackle these contradictions through an interconnected understanding of physical systems over time. Misunderstandings of cycles and equilibrium have led to a misguided view of the progression of our physical universe. If mankind is to address the challenges brought about by a changing world, we must first understand and accept the change we are addressing.

Keywords: Environmental Progression, Global Environmental Change, Global Climate Change