How to mitigate impending natural disasters by utilizing geological sciences: Discussion on the relevance of science for society in dealing with geohazards

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Natural hazards will result in future disasters but the impact of these events could be mitigated with assessment of human behaviors and thoughtful planning. Many hazards are predictable, derived mostly from natural and scientific principles, whereas disasters are partially the result of human error. Disasters are defined as loss of life and personal and public properties (including social and economic) resulting from devastating forces of natural hazards. Impacts of disasters might be minimized by thoughtful analysis of social and psychological elements of human behavior. For example, sociologists have promulgated the concept of ‘normalcy bias’, which shows that humans tend to behave normally when faced with grave and imminent danger; specifically, they over-focus on the actual phenomena instead of taking evasive action when facing instantaneous survival from disaster. In addition, we might be able to minimize the impact of disasters if we consider that hazards are composed of some social factors as well (over-population, too much dense, and too much fragile, less resilient, and caused by human activities). We should avoid such factors as soon as possible. We, in this case, should treat our IUGS GeoHazard Task Group project to be how we utilize our scientific knowledge and methodologies, and information for society. “Be prepared” is a motto of Boy and Girl Scouts, and this term fits also the objectives of our newly established project, IUGS GeoHazardTask Group. Then, the topics are to be: how to point out the effective ways to avoid the potential human hazard factors, and how to be prepared in each case. We will discuss the detail methods in coming four years from the world’s intelligent group of scientists.

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