

Geohazards, Globalization of Natural Disasters, and Their Impact on World Geopolitics

*Yildirim Dilek¹

1. Miami University Oxford

Naturally caused and human-induced environmental changes produce significant effects on political, social and economic systems at a global scale, potentially altering global economy, human security and geopolitical stability. Geohazards, which are caused by short- and long-term Earth processes, result in catastrophic damages, casualties and destruction of social infrastructures. Yet, most geopolitical analyses omit such environmental changes and natural disasters in extrapolating future political and economic circumstances. A scientific approach to the history and the distribution of past civilizations clearly shows that their rise and demise were greatly influenced by geological processes and catastrophic events that took place in various time scales. The Indian Ocean tsunami of December 2004, the Katrina hurricane and flood (USA) of August 2005, the Icelandic Eyjafjallajökull volcanic eruption of April 2010, and the Tohoku (Japan) earthquake and tsunami of March 2011 are some of the most salient, modern examples of major natural disasters that have had adverse implications on global economy and on the regional/national security of the countries involved.

Regardless of the basic premises of the leading geopolitical scenarios about the future territorial configuration of power, the ramifications of large-scale natural events involving climate change, earthquakes, tsunamis, volcanic eruptions, floods and landslides are bound to be enormous and highly devastating for the sustainable development of the global economy and peace. The major geopolitical impacts of these events include: the collapse of agricultural productivity, the lack of fresh water, the disruption of electronic communication and industrial output, the destruction of coastal zones, and the unexpected shifts in shipping routes. These developments can easily lead to the creation of destabilizing problems and global conflicts as the nations and societies lose their resource base. We must educate the public and policy-makers about the importance of various geological processes and associated natural disasters for better preparedness for such environmental changes of global scales in order to maintain the world peace, security and prosperity. It is imperative that earth scientists, engineers, socio-economists, educators, health organizations, policy-makers and city-state officials make concerted, systematic and collaborative efforts to better understand and document various types of destructive geohazards and to put in place effective and functional programs and policies for risk assessment, preparedness, and mitigation. All these professionals and related organizations should collaborate to develop international standards for building a vast and accessible database and data exchange program. The newly established IUGS GeoHazard Task Group is ready to take on a leadership role in raising the visibility and effectiveness of public understanding of geohazards and their impacts on the societies, nations and governments around the world, and needs a proactive engagement of all stakeholders.

Keywords: Geohazards and disasters, Risk assessment and mitigation, Public awareness of geohazards and preparedness, Global geopolitics, IUGS Task Group on GeoHazards, Globalization of Natural Disasters