

Managing A World at Risk

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Hurricane devastation in Florida and the Caribbean, war in Iraq, ethnic butchery in the Sudan, and species loss in the world's oceans all are indicators of a world at risk. Although risk has been ever-present in human history, it is a more critical issue today because populations continue to grow, resources are becoming scarcer, and technology has become ever-more sophisticated and potentially more dangerous. Earth is under attack!

The relationship between global economic growth, increasing populations, and resource scarcity has become more conflictual in recent decades as societies and political states clash over how best to contain and manage risk. Terrorist attacks on American soil, for example, have spurred the U.S. government to pursue a policy of intervention and pre-emption to strengthen and preserve its hegemony and to safeguard the homeland.

The invasion and occupation of Iraq and Afghanistan have been justified as one component of a larger strategy to manage political risk in the global system. Yet in the environmental realm, U.S. policy generally has leaned towards risk aversion rather than risk management.

Failure of a dominant state to support initiatives on global climate change, for instance, or to recognize the growing levels of environmental stress on water systems, soils, and other crucial resources works against a holistic, international approach to managing risk. In terms of risk management, it could be argued that waging war whilst ignoring global environmental challenges is counter-productive in building much needed international partnerships to identify and manage risk.

Perhaps the greatest barrier to managing global risk, however, is a lack of understanding about its geography. Ignorance about how the world works geographically has created a policy and decision-making environment that frequently ignores the spatial dynamics of risk. In the global system, terrorists have little consideration for artificially created political boundaries; neither do airborne pollutants, as Canada is quick to point out.

Hurricanes do not distinguish between insured and uninsured property, as demonstrated recently in Jamaica and Florida, and endangered species are equally vulnerable to predations from developing and developed societies. Yet what links these events together is that they are geographically constituted and have root causes that can be mapped, analyzed, and predicted.

Futurists have suggested that conflict in the world system likely will emerge from struggles over access to water, productive agricultural land, better quality of life, and fossil fuels such as oil and coal. If so, are there better ways to manage risk in a conflicted world? New spatial technologies such as Geographical Information Systems (GIS) can provide innovative ways to conceptualize, map, analyze, and forecast risk at myriad scales. Understanding the geography of resource distribution, the nature of

resource demand, and environmental limits to growth by mapping and analyzing them in a GIS can help governments better manage risk and avoid conflict.

There is little doubt that wars will continue to be waged, hurricanes will continue to wreak havoc, and species will remain under threat for the foreseeable future. However, applying geographic technologies to analyzing and predicting these events may well help to reduce their negative impacts on people and places. Managing risk in a global system requires that the geographies of risk be more clearly understood. Absent such understanding, our planet will remain increasingly vulnerable to the damage inflicted by terrorism, natural catastrophies, and global environment deterioration.

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