

Toxic chemicals: environmental impact, regulation, controversy, and education: editor's introduction

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JESS mini-symposium

Editorial introduction

Two recent AESS annual conferences included a series of panel presentations that focused on environmental health. The first group of panels considered a variety of related by different questions: human health and the environment, environmental justice, climate change, and the impacts of globalization. The second group looked more closely at environmental health challenges inherent in present policies that are concerned with synthetic chemicals. Papers in the following mini-symposium evolved from these panels.

While most papers included in the JESS mini-symposium represent further development of conference presentations, others were solicited or submitted outside the conference proceedings.

The paper by Monica Ramirez-Andreotta and coworkers “Analyzing Patterns of Community Interest at a Legacy Mining Site to Assess and Inform Environmental Health Literacy Efforts,” examines the intersection of environmental health and environmental justice. Using qualitative research methods, the authors test the hypothesis that traditional outreach methods of regulatory agencies do not adequately address and incorporate health concerns of communities at or close to Superfund sites. In addition, by showing that such

sites or contiguous areas are disproportionately found among underrepresented communities, the authors draw strong relationships between environmental health and environmental justice.

“Scientific Contestations Over ‘Toxic Trespass’ Health and Regulatory Implications of Chemical Biomonitoring” by Bhavna Shamasunder and Rachel Morello-Frosch and “Challenges and Opportunities in Stimulating Public Awareness and Engagement on US Chemicals Policy” by Caroline Scruggs and Rachael Moore both consider the limitations, controversies, and opportunities inherent in the present US policies regulating synthetic chemicals. The Shamasunder and Morello-Frosch paper examines implications and disputes regarding the role of biomonitoring in establishing regulatory policy. The Scruggs and Moore paper assesses factors that determine why, despite insufficiencies in the present US regulatory policy regarding synthetic chemicals, many members of the general public are not concerned about potential toxicity. It also considers ways that representatives of the larger environmental health community might better inform the public so that the larger community might address and advocate meaningful chemical policy reform.

The papers by Gary Silverman and Curt Gervich focus on pedagogy: how students considering careers in the environmental health might be better prepared and informed to address complexities associated with the intersection of toxic chemicals and environmental health. “Preparation of Environmental Studies and Science Students as Participants in the Environmental Risk Dialogue,” submitted by Gary Silverman and Meghan Wally addresses the effectiveness of educational programs in training students to conduct risk assessment activities. Curt Gervich’s submission, “Toxic Release!

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The Role of Educational Games in Teaching and Learning about Hazardous Pollution” is a detailed examination of the importance of educational games in teaching and enabling students to consider toxic emissions and other environmental health questions.

Clearly, a sampling of a few papers is, at best, small and incomplete overview of the field of environmental health. At the same time, the intent of the mini-symposium is to present a sense of the richness and complexity of this field as a larger part of environmental studies and sciences.