Trust and Stigma: Analyzing Community Considerations in Emergency Response

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General Environmental Cleanup Process

1. Site Assessment
2. Removal/Remediation
3. Reuse
Social Science

Power Structures

Site Characterization

Cultural Heritage

Exposure Sampling

Threat Agent Detection

Analytical Methods

Community Values

Stakeholder Relationships

Local Economy

Waste Disposal

Decon Technology

United States Environmental Protection Agency
Are my kids safe?

How can I build community consensus?

Will the value of my home go down?

Who will buy my produce now?

What’s the best way to communicate the science?

Social science research can help understand & address community considerations that arise during cleanups
How did we get here? Our project’s origin

- EPA initiative to expand social science portfolio
- Social science “boot camp” for scientists
- Questions from Homeland Security scientists
  - “Self-help” decontamination
  - “How clean is clean”

Our approach: develop a baseline understanding of the “state of the science” of decontamination social science
Research Plan

Phases
- ✓ Phase 1: Social science literature review
- Phase 2: Interview EPA cleanup experts (1/2 way)

Questions
- How do social factors affect environmental cleanup processes?
- What are social impacts of cleanup activities?
- What are social outcomes of completed cleanups?

Goals
- Apply findings to different cleanup situations
- Develop tools & resources to fulfill EPA needs
What does “environmental cleanup” include?

- Superfund
- Brownfield
- Emergency response
- Federal facility
- Characterization
- Decontamination
- Remediation
- Removal
- Waste disposal
- Chemical
- Biological
- Radiological
- Federal
- State
- Local
- Tribal
Literature Search Parameters

Searched online databases for books, scientific articles, grey literature that:

- Use theories and/or methods from social science
- Address social dimensions of environmental cleanup
- Published in last 25 years
- Meet quality control criteria
- Written in English
Articles by Publication Year (n=97)
Cleanup Situations in Articles (n=97)

- Emergency Response/Disaster: 50%
- Superfund or International Hazardous Waste: 36%
- Other (non-specified scenarios): 7%
- Federal Facility: 5%
- Brownfield: 2%
The Big Picture: Social variables do affect cleanup processes and outcomes in all types of cleanup situations.
What the literature shows

**Research Question 1.** *How do social factors affect cleanup processes?*

- Trust - central importance!
- Role of public engagement in decision-making
What the literature shows

Research Question 2: What are social impacts of cleanup activities?
- Stigma of sites & people
- Cleanup worker health
- Local economy
What the literature shows

Research Question 3: What are the social outcomes of completed cleanups?
Housing value increases (generally)
The Social Science of Trust in Cleanups

**How is trust lost?**
- Poor communication
- Community history
- Little public engagement
- Top-down decision-making

**How is trust gained?**
- Good communication
- Public engagement (multiple strategies)
- Meaningful input
- Consensus building
The Social Science of Stigma in Cleanups

Stigma may be attached to people or places

- Lowered housing prices
- Abandoned communities
- Social ostracizing
- Fear of the invisible threat

How to reduce stigma?

- Communicate facts, dispel myths
- Provide support networks for affected communities and workers
- Speedy cleanups
Applying Findings to EPA Cleanup Work

- Learn from successful public engagement & communication techniques to build trust & reduce stigma
- Strategies to support cleanup worker health
- Ways to evaluate the societal benefits of cleanup value

Challenges in applying findings:
- Do they work in different cleanup situations?
- Time & resources required- is it EPA’s role?
- Academic speak
Gaps in the Literature

- Even social science disciplines operate in silos!
- Uneven coverage of cleanup situations:
  - Lots on big disasters, little on brownfields or smaller-scale removals
- Comprehensive model or framework is missing
  - *How clean is clean?*
Next Steps and Future Research

- Complete interviews with EPA cleanup experts **Volunteers requested!!**
- Develop products to aid EPA staff in cleanup work
- Identify social variables critical to emergency response
- Test communication and outreach strategies in different communities
Thank You!

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