



SPECIAL WORKSHOP

BUILDING RESILIENCE THROUGH INTEGRATED DISASTER RISK AND WASTE MANAGEMENT

Addressing Vulnerability and Sustainability



Harald RAUPENSTRAUCH



Renate RENNER



Industrial development is vital to maintaining our prosperity, strengthening economic growth, and creating essential jobs. However, there is also a so-called dark side to technological development, as large quantities of hazardous and toxic waste are produced as a by-product, and only responsible, proactive waste management can reduce the disaster risk. Industries, society and politics are called upon to develop innovative approaches and learn from past events. Both urbanization and anthropogenic climate change increase the potential for disasters. Think of natural disaster-triggered technological (natch) disasters. New hazards are emerging, and there is an increased need to manage growing uncertainties and potential system-wide consequences or cascading disaster risks.

Disasters always occur at the interface between the socio-cultural system and natural or technological hazards. The more we know about the dangers on the one hand and the patterns of the potentially affected society and individuals, environments, and political settings on the other, the better we can assess the disaster risk and take appropriate measures. Especially because hazardous wastes and industrial disasters can pollute and destroy our prosperity, public health, and habitat in the immediate and long term, it is important to make this topic central.

With the help of the following concepts, we invite you to make diverse and comprehensive contributions to a better understanding of disaster risk and industrial waste management:

VULNERABILITY allows us to examine various illuminated weaknesses, notably a lack of preparation and protective measures, from different disciplinary perspectives (environmental, psychological, social, public health, etc.).

RESILIENCE refers to our ability (individual, group, society, organization, etc.) to deal with disruptive events (resistance, recovery, growth). It refers to the principle from disaster research that demonstrates the need to *build back* or even *build back better*. Here, we add the normative principle of **SUSTAINABILITY**, as we want to promote long-term change that addresses crucial human needs. Last but not least, resilience serves as a construct for structured analysis and allows us to shed light on performing better than expected.

This session focuses on the intersection of disaster risk management and waste management, highlighting how vulnerabilities tied to hazardous and industrial waste can intensify disaster impacts. By examining critical vulnerabilities and resilience-building approaches, attendees will gain actionable insights into sustainable and equitable ways to effectively manage disaster and waste-related risks.

Sub-Themes for the Session:

- The Intersection of Disaster Risk Management and Waste Vulnerability and Risk in Waste Management
- Building Resilience through Sustainable Waste Practices
- Social, Communication and Public Health Aspects
- Risk Governance and Risk Participation
- Technological and Operational Innovations
- Climate Change, Natech and Future Challenges
- Lessons from Practice: Case Studies and Success Stories