

GAP-Santé Research Unit

Research Thrust

Social Analysis of Risk: Security, Environment and Population Health



Abstract: Louise Lemyre is an expert in psychological stress, subjective appraisal and risk perception. Her interdisciplinary projects involve the major determinants of population health and their interaction, especially as they relate to Sense of Mastery, Uncertainty and Threat. The psychosocial aspects of terrorism, emergency preparedness and psychosocial management of risks are at the core of her applied research program.

Dr Lemyre is an Academic Representative Member of the *Resilient Communities Working Group of the Canadian National Risk Reduction Platform for the U.N. International Strategy for Disaster Reduction*.

Aim: We aim to bring synthesis and lead innovation in risk analysis.

Objectives:

- The identification and characterization of social features of threats that affect populations;
- Analyzing and modelling 'behaviours' and 'wellness' of individuals, communities and organizations, in their ripple response to threats;
- Simulating coordination activities and shared decision-making of field responders, organization planners and community leaders from various sectors: public, private, military and humanitarian; and,
- Applying and transferring social knowledge into actual training, planning, decision-making, and policy development.

Target an integrative, multi-dimensional, multi-level analysis to achieve a better appraisal and understanding, as well as more efficient management of risks. Our examination would follow three main areas of interest:

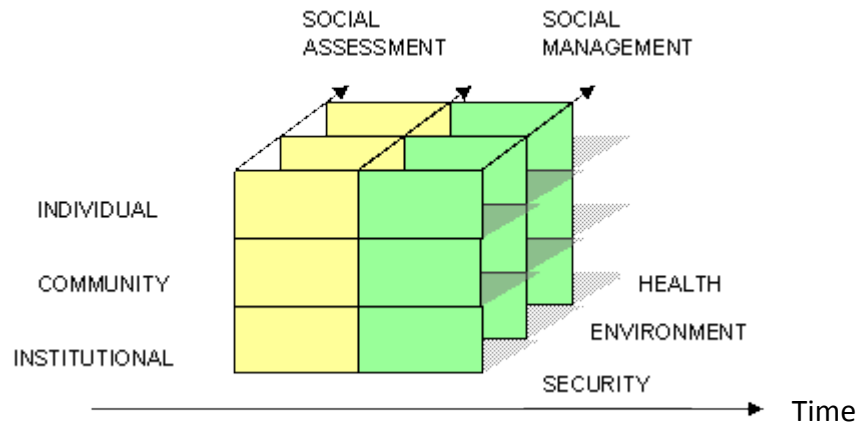
- Social consequences of risks, and the risk ripple effects through social tiers;
- Anticipation and uncertainty, dealing with threats and forecasts; and
- Coping and problem-solving at the individual level, management and resilience at the collective level.

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Research Program:

The research could be represented by a 3D matrix. On the vertical axis, three levels of analysis: Individual Dynamics (and their family), Community Dynamics (associations and neighbourhoods), Institutional Dynamics (organizations and policies). On the depth dimension, three domains of hazards: Security (terrorism and natural disasters), Environment (climate change and pollution), Health (pandemics and food risks). On the horizontal axis are the processes which we organize in two broad categories: Social Assessment (appraisal-focused) and Social Management (action-focused).



Through analyzing the relationships between the three axes of the matrix above, deliverables would include the following:

- The social analysis of a set of case studies along the cascade of effects across tiers of impact: direct damage, death and casualties; social services and utilities; societal fabric, trust, order, political and economic sustainability;
- Carry out mapping, modeling and simulation of social consequences;
- Analyze social vulnerability factors as well as protective factors such as resilience;
- Develop tools and scenarios to rehearse response, help coordination, and to train;
- Establish a generic comprehensive framework to assess and respond to various hazards, yet that is to be customized to specific characteristics of the hazard and of the target group, context and circumstances; and
- Derive useful tools to support the transfer of social risk knowledge to decision-makers, policy planners and risk managers.