

The Full-Spectrum Risk Knowledgebase

The Full-Spectrum Risk Knowledgebase is an initiative of the Office of National Capital Region Coordination (NCRC) of the Federal Emergency Management Agency, developed with input from diverse stakeholders



About The Full-Spectrum Risk Knowledgebase

The Full-Spectrum Risk Knowledgebase is designed to support federal, state, local, tribal, and territorial government officials in considering their risks and to enhance risk-informed decision making. The Full-Spectrum Risk Knowledgebase is a secure, online resource for stakeholders and contains reference material, information, and guidance aimed at helping them further develop and refine their own knowledge of all-hazard risks. While it facilitates risk analysis, it does not generate answers on its own; rather, it helps stakeholders formulate and answer key risk questions themselves based on information about how hazards evolve in time, what types of mitigation actions and countermeasures may reduce risk, and how to apply different methods and structured analytic techniques to help reason through problems and develop answers to questions that are mindful about what is known, unknown, and assumed. The Full-Spectrum Risk Knowledgebase serves as a collaborative environment to build risk knowledge, enabling users to access and contribute to the development of site content at will. The information on this dynamic site is continually expanding and represents a growing body of knowledge based on research and analysis and communications with subject-matter experts and various stakeholders. Updated and new content is regularly added by NCRC staff, as developed by the Program Team and with input from users, to include elaboration on cause and consequence in different contexts, examples of mitigation actions and countermeasures that may be implemented to influence the causal relationships between hazards, varied perspectives on historical events, and case studies demonstrating the application of different structured analytic techniques, among other information.

Baseline Risk Information

Offers information on:

- What can happen (threats and hazards)
- What the consequences may be if it does happen (networks illustrate cause and effect)
- Factors that influence the extent of consequences
- What can be done
- What has happened in the past

Assists in:

- Planning
- Exercises
- Forecasting cascading effects of an incident
- Informing investment justifications and program plans

Methodology Playbook

Offers information and guidance on:

- Structured analytic techniques
- Analytic packages for key decision tasks

Provides:

- Step-by-step instructions on using select analytic techniques
- Frameworks to inform decision making

Enables:

- Systematic, analytical approach to decision making
- Documentation on how conclusions were reached

Assists in:

- Articulating decisions and approach or processes used
- Developing investment justifications and program plans

Collectively, The Knowledgebase . . .

- .. Supports risk-informed decision making
- .. Enables risk analyses
- .. Aids in building a more refined risk picture
- . Serves as a collaborative environment to build risk knowledge
- .. Captures institutional knowledge and experience of subject-matter experts and practitioners

Users are encouraged to provide input via a Comments feature

- Share information
- Impart knowledge and expertise
- Offer suggestions for enhanced or added content

Example Hazard Network on Roads Vegetation V Disruption

The Methodology Playbook . . .

- .. Provides information and guidance on methodologies and structured analytic techniques to help stakeholders Identify, Assess, Rank & Order, and Learn about threats, hazards, vulnerabilities, and mitigation actions and countermeasures, and Defend prioritizations and allocations
- . Provides worksheets where appropriate for use during and after the completion of each method or technique
- .. Offers case studies of real risk problems to supplement guidance on select techniques, as performed or facilitated by The Pennsylvania State University with the help of practitioners
- ... Includes information on the use of complementary techniques and custom "analytic packages" for tackling a variety of decision tasks subject to time and resource constraints

Selected Methods and Techniques

- Analysis of Competing
- Hypotheses
- Cause and Effect Diagrams
- Divergent-Convergent
- Thinking
- Failure Modes and Effects Analysis

And Many More . . .

- Hierarchical

Modeling

Holographic

Technique

Timelines and

Chronologies

Weighted Ranking

Nominal Group

Analytic Packages Example: Identifying Fiscal Year Investment Themes The below is an analysis process based around a variety of brainstorming techniques that can be used to produce one or more investment themes based on the input of multiple stakeholders. the Drivers of Risk the Drivers of Risk