

# Dynamic Modeling Requirements for Complex Threats to Climate Security



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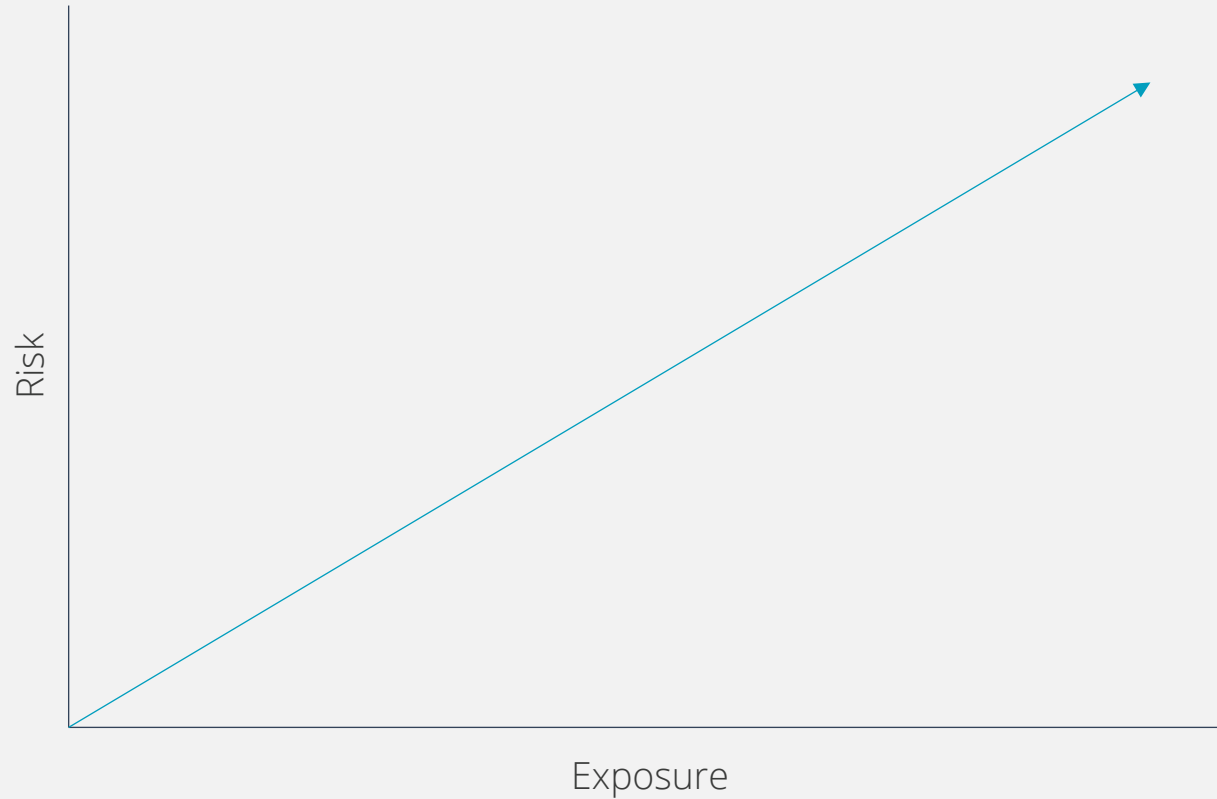


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CLIMATE SECURITY: “The **interactions** between change in global, regional, or local climate patterns and political, military, economic, and social risks/stresses to peace, security, and stability.”

-- New America

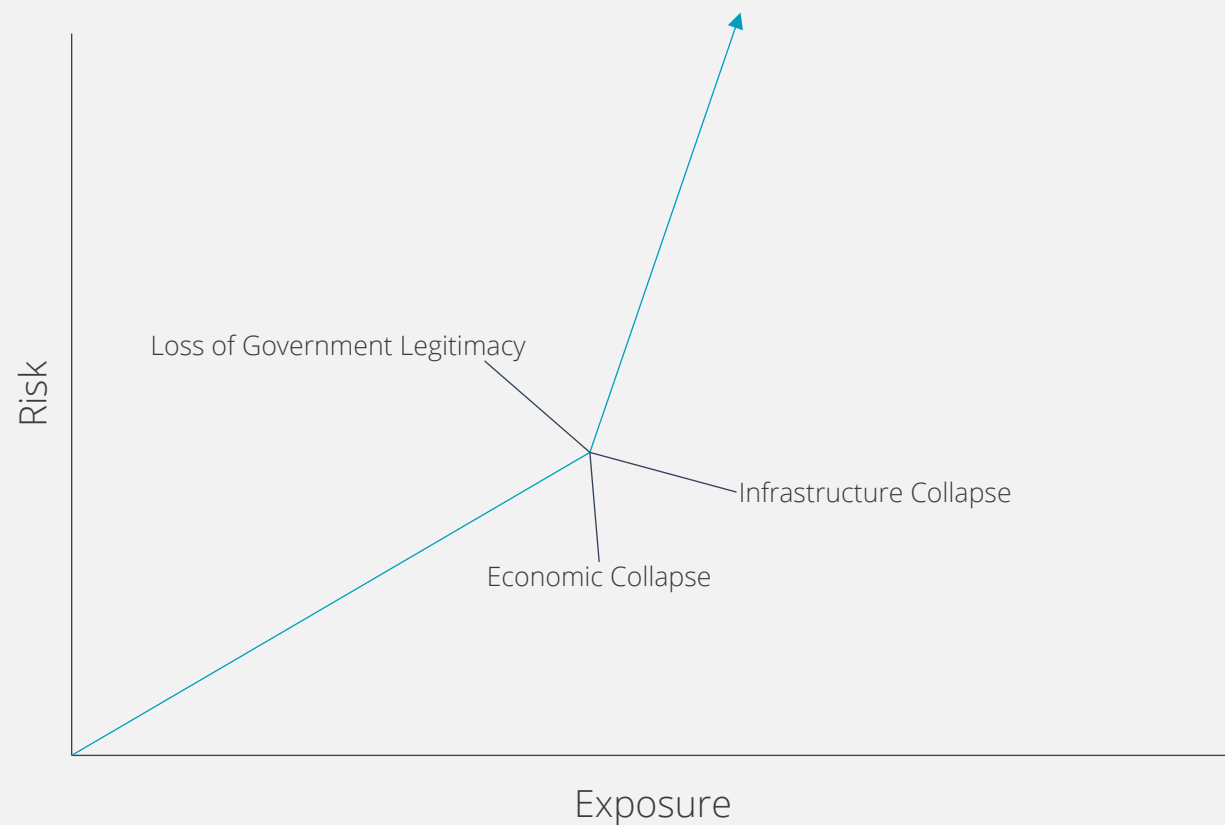
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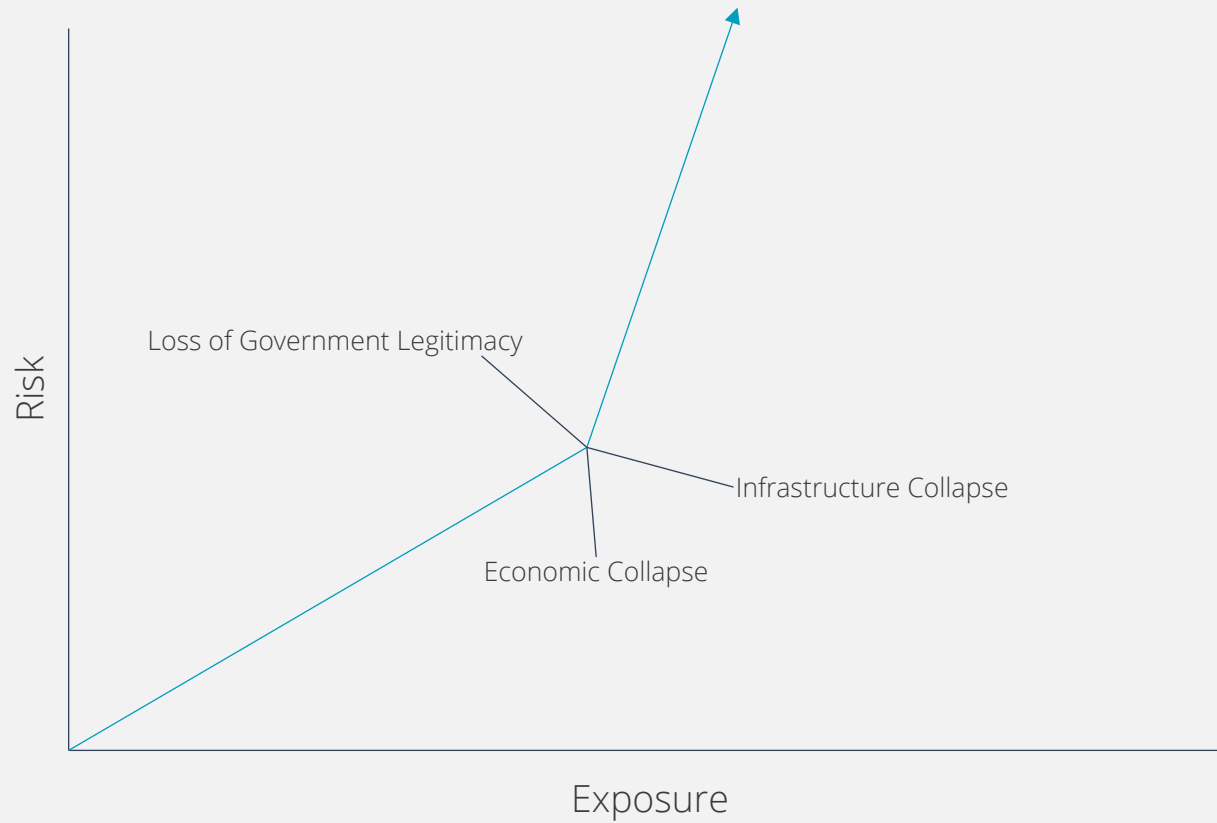
Current models assume:

- Fixed political, social, and economic scenarios
- A linear relationship between exposure and risk
- Equal exposure and effects across subpopulations

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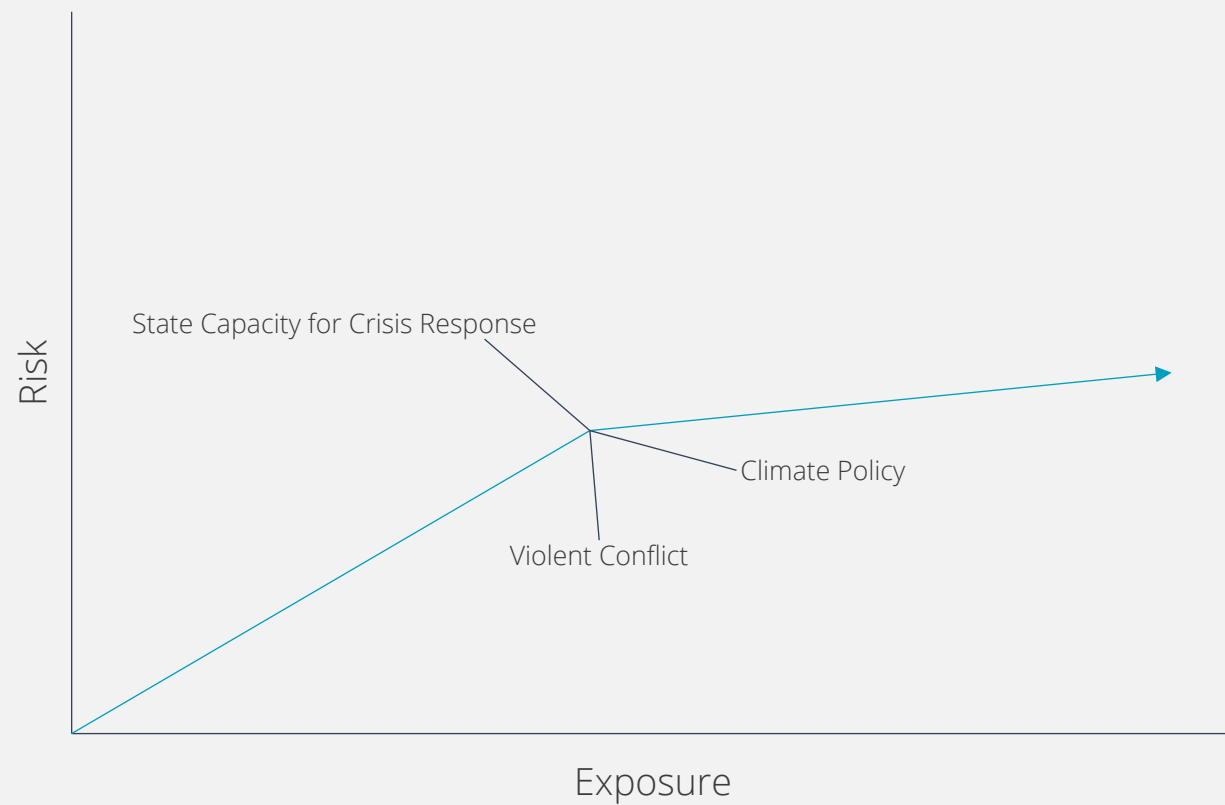


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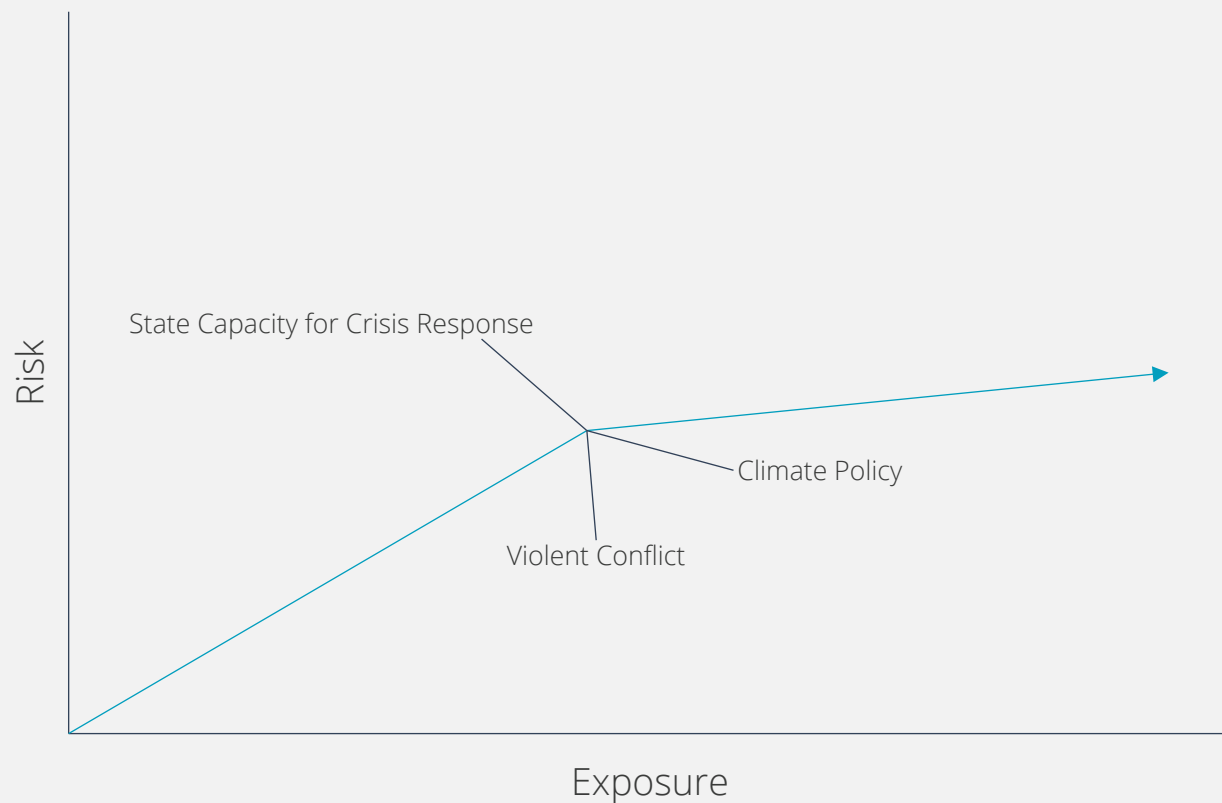


Hurricane Katrina, USA  
2005

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Arab Spring, Middle East & North Africa  
2010-2012

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**PHYSICAL HAZARDS**

- Droughts
- Floods
- Extreme Weather Events
- Temperature Change



**GOVERNANCE**

- State Capacity
- Neopatrimonialism
- Corruption
- Political Instability

**SEVERITY & EXPOSURE**

- Total Population
- Urban Population
- Population Growth
- Allocation of Natural Resources



**HOUSEHOLD RESILIENCE**

- Income Level
- Poverty Rates
- Education
- Health & Nutrition





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Questions?