

December 7, 2022

Bay Area Supply Chain Resilience Seminar Series

# Supply Chains and Disasters



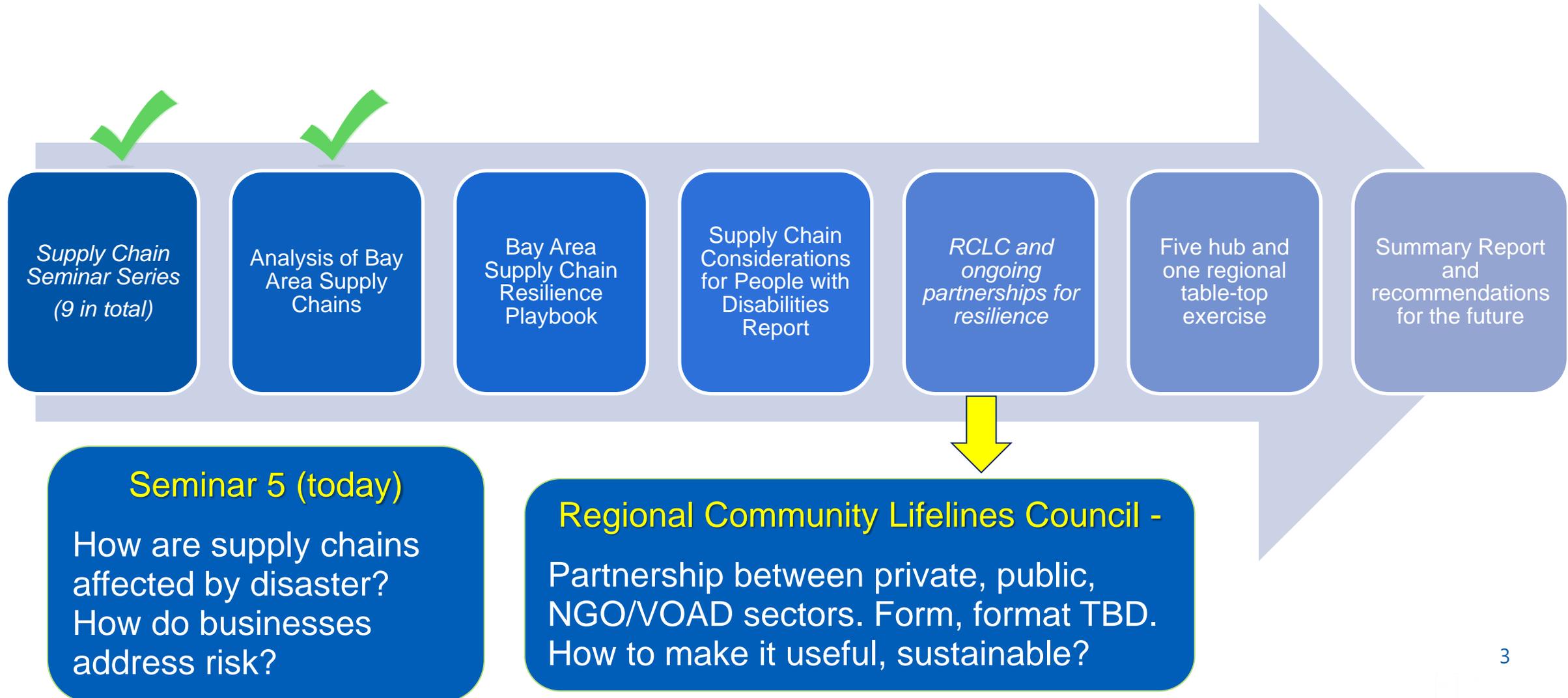
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<http://www.bayareauasi.org/sites/default/files/resources/Bay%20Area%20UASI%20FY2019-2019%20Annual%20Report%20Website.pdf>

# Regional Catastrophic Preparedness Grant Program (RCPGP)

- The purpose of the Bay Area's RCPGP Supply Chain Resilience project is to:
  - Improve public/private partnership coordination capabilities for disaster response by enabling the private sector to reconstitute supply chains as rapidly as possible following a disaster.
  - Reduce the impacts of supply chain disruptions on vulnerable populations through the development of guidance and materials to support critical path decision-making and awareness of how people with disabilities in the Bay Area access groceries and food.

# What will the Bay Area RCPGP Supply Chain Resilience Grant Produce



# Seminar 5 – Agenda

## Quick Review

### Module 1 – Supply Chains and Disasters

- Disruptions
- Panel Discussion
- Q&A

### Module 2 – Supply Chain Risk

- Risk Types
- Panel Discussion
- Q&A



Photo: H.G. Wilshire, U.S. Geological Survey, Public domain, via Wikimedia Commons

# Welcome & Introductions

## Introduce Yourself in the Chat:

- Name and Jurisdiction/Agency (Organization)

## Discussion Logistics

- Please ensure you're muted during presentations, but you can unmute during discussion sections
  - \*6 to mute/unmute on phone
- Please raise your hand to ask a clarification question at any time
  - \*9 to raise and lower hand on phone
- Use the chat to comment or ask questions at any point during the presentation.

# Quick Review

# What we've covered so far

## Seminar 1:

- What are supply chains?
- Demand Pull and Supply Push
- Connecting Demand and Supply
- Nodes, Links, and Interdependencies
- Volume, Velocity, and Flow Capacity

- Bottlenecks becoming Chokepoints
- (In)flexible Capacity (& relative scale of private supply chains and public relief efforts)
- Stress versus Shock
- Facilitating Adaptation

## Seminar 2:

- What are supply chains? (review)
- Demand Pull and Supply Push (review)
- High-volume, high-velocity capacity
- Big local bottleneck examples: food, fuel, freight

- Scale of water and food needs for the population
- Scale of major water and food flow; high-level sourcing
- Using data to illustrate concentration and flow

# Emergency Management roles in supply chain resilience

## **Pinch-Hitter**

Replace flows  
MREs  
Bottled Water  
Feeding Centers  
CPODs  
Cross-docks  
Trucking

*Sometimes competes with existing flow*

## **Informer**

Roads Open  
Grid Status  
Telecom Status  
Fuel Status  
Demand Dynamics  
Big Picture

## **Gap-Filler**

*Using supply chain informed targeting:*  
Supplement flows  
MREs  
Bottled Water  
Feeding Centers  
CPODs  
Cross-docks  
Trucking  
Fuel

## **Facilitator**

*Prioritizing*  
Debris Removal  
Grid Recovery  
Fuel Access  
More Time  
More Weight  
Staging/Drop-and-go spaces  
Generators  
Deconfliction  
Demand Signals

## **Disruptor**

Close Routes  
Close Rest Areas  
Delay  
Neglect  
Confuse  
Mislead  
Compete  
Delay  
Delay  
Delay

# **Module 1 – Supply Chains and Disasters**

# Speakers



**Katie Murphy**  
Senior Manager of Business  
Continuity  
C&S Wholesale Grocers



**Don Lynn**  
Director, Crisis and Business  
Continuity Management  
Albertsons Companies



**Jeremy Van Puffelen**  
President  
Prism Logistics

# Why Do Disasters Affect Supply Chains?

- ***Demand–supply mismatches are the result of demand shifts, supply reductions and/or coordination failures.*** (Ergun, Hopp, Keskinocak [2022])

Demand Shift	Supply Reduction	Coordination Failure
<p>When demand for a product changes, particularly if the change is sudden, a supply chain may fail to keep up, and hence, a shortage or excess inventory ensues.</p> <p>Note: Demand may or may not equal actual need</p>	<p>Supplies can be interrupted by a wide range of events... If stock or capacity in the supply chain cannot make up for the reduction, a shortage will result.</p>	<p>Even if total supply is sufficient to meet total demand (need), supply chains can fail to achieve a match. For example, communication and information system breakdowns...can make it impossible to communicate demand upstream.</p>
<p>Examples: Fuel, food panic buying ahead of storms Excess inventory at restaurants during pandemic</p>	<p>Examples: PPE during pandemic Saline bags after Hurricane Maria</p>	<p>Examples: Hoarding paper products</p>

# Questions for Speakers

- How does your business respond to disruption from disasters?
- What's the deal with transportation during disasters?
- Talk to us about the other supply chains your business depends upon.
- How do government interventions affect your supply chain?
- Audience Questions

# Module I: Discussion

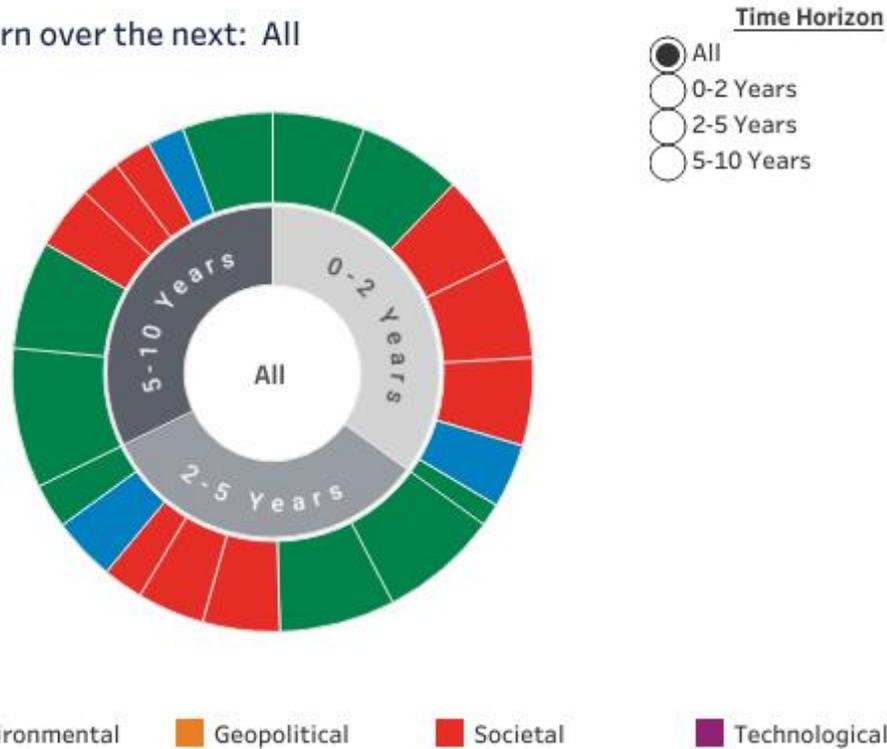
- Raise your hand to ask a question
  - \*9 to raise and lower hand on the phone



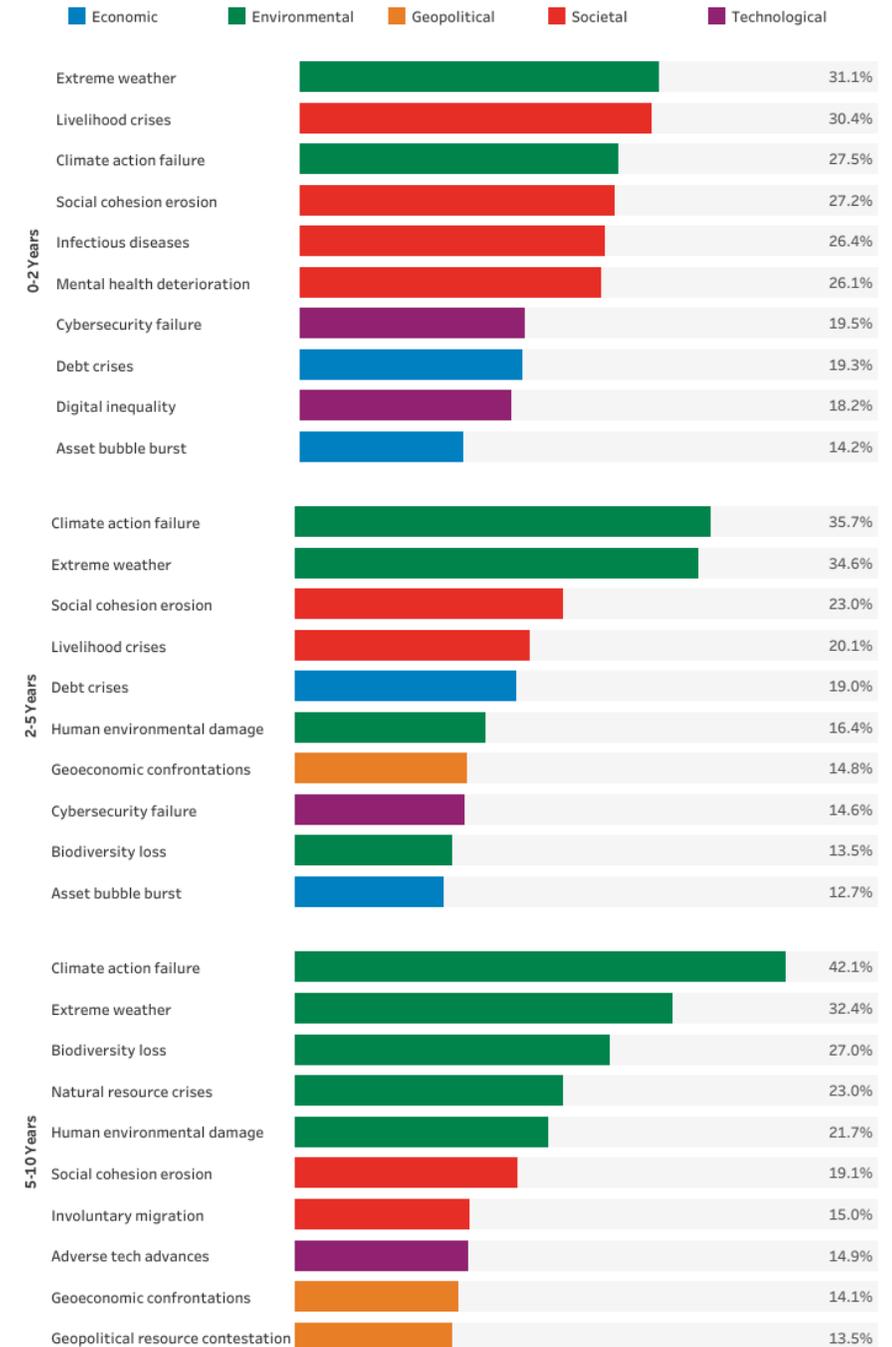
# Module 2 – Supply Chain Risk

# Global Executive Risk Perception

Top 10 Global Risks of Concern over the next: All

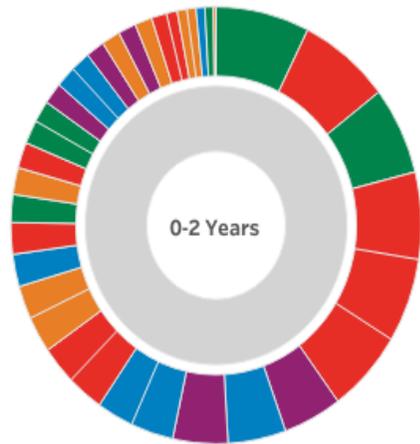


In the next 10 years, executives globally are worried about **societal** and **environmental** risks (as well as **cyber**, **financial**, and **geopolitical**)

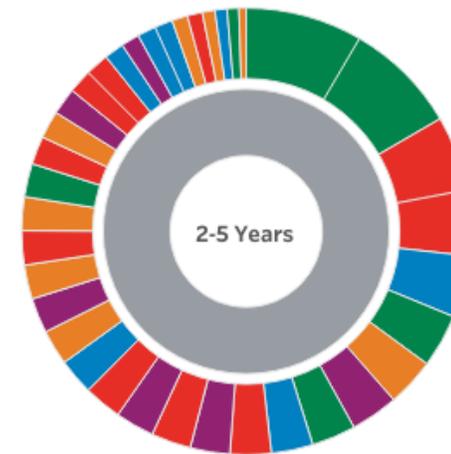


# Global Executive Risk Perception (0 – 2, 2 – 5 years)

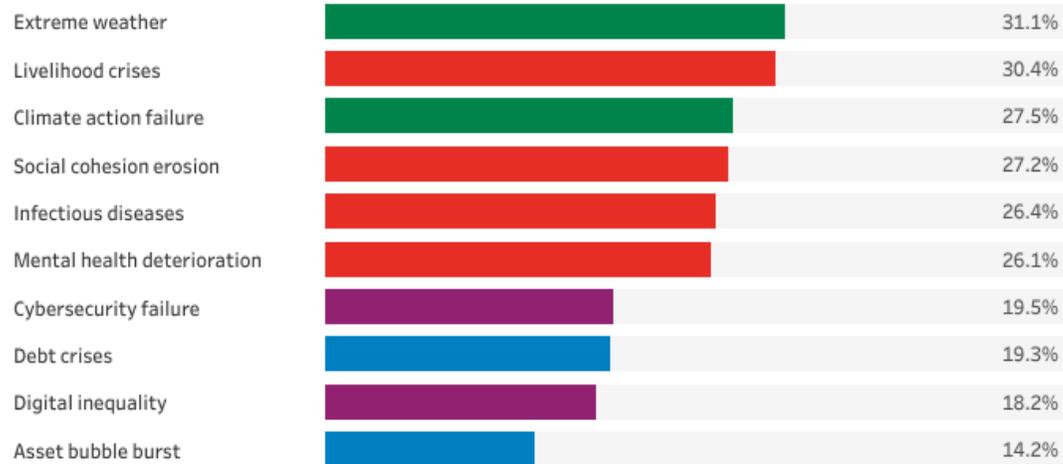
Top 10 Global Risks of Concern over the next: 0-2 Years



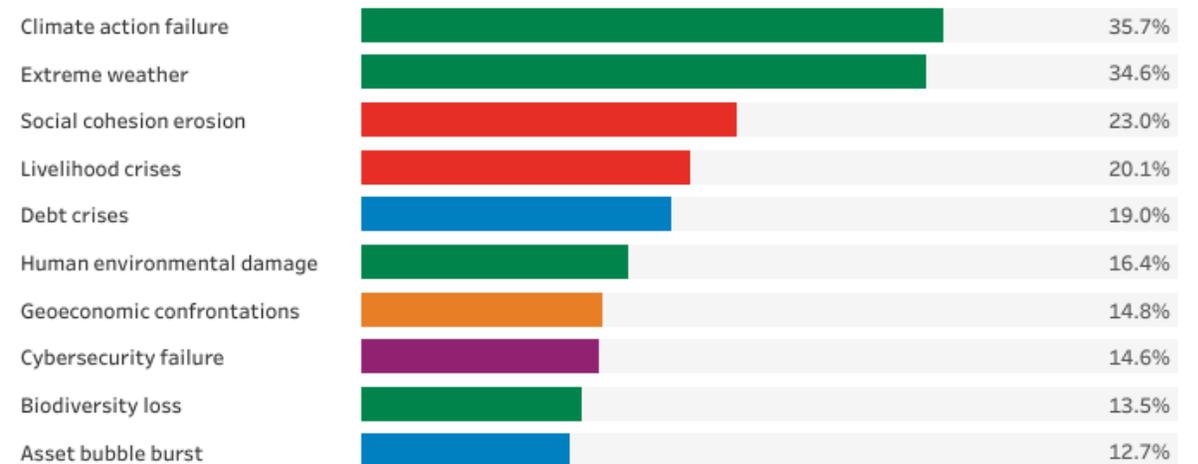
Top 10 Global Risks of Concern over the next: 2-5 Years



■ Economic   
 ■ Environmental   
 ■ Geopolitical   
 ■ Societal   
 ■ Technological

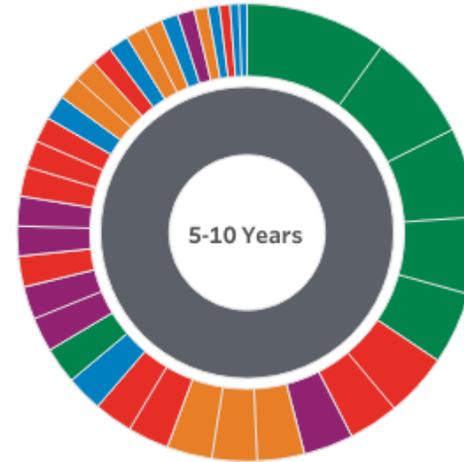


■ Economic   
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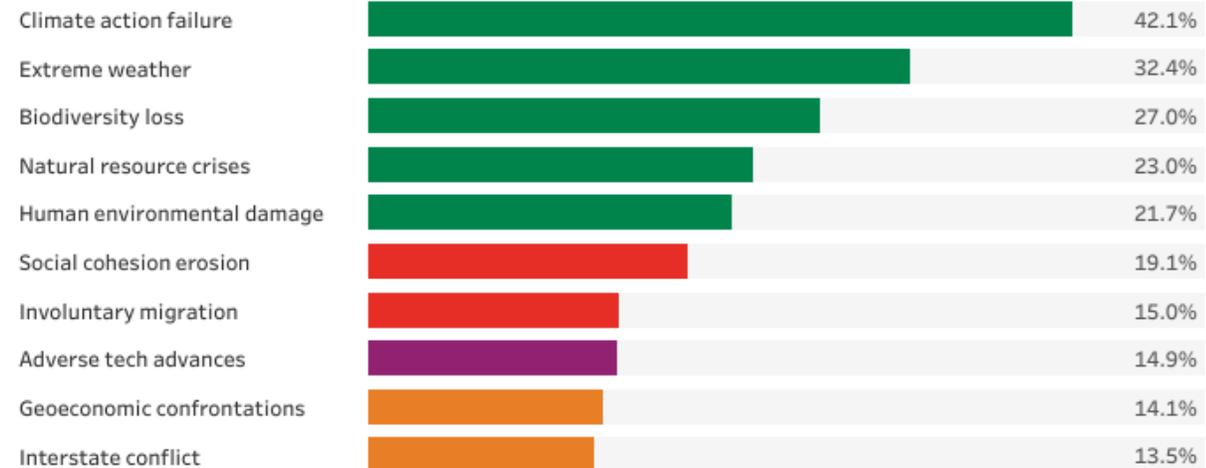


# Global Executive Risk Perception (5 – 10 years)

Top 10 Global Risks of Concern over the next: 5-10 Years



■ Economic   
 ■ Environmental   
 ■ Geopolitical   
 ■ Societal   
 ■ Technological



# Supply Chain Risk Types

- Labor
- Cyber
- Supplier
- Transportation
- Regulatory
- Reputational
- **Disaster**



*\*Risk types commonly referenced in supply chain industry press and by supply chain executives.*

# Protecting Supply Chain “Capacities”

- Acquiring materials
- Moving materials
- Converting materials (or internal operations)
- Ensuring resource availability
- Maintaining sufficient financial assets
- Providing distribution channels to the customer
- Communicating with partners and customers

*“Practitioners need to create business continuity plans for each of these capacities, independent of the source of risk.” (Jim Rice, 2022)*

Supply Chain Resilience is an emerging practice for **facilitating continuous flow of essential goods and services** (e.g., water, food, fuel, pharmaceuticals, and other critical freight) under severe duress. (Seminars 1/2)

# Questions for Speakers

- What keeps you up at night? How do you manage risk?
- How do disasters affect your ability to fulfill your supply chain “capacities”?
- We hear how supply chain professionals understand risk, as they deal with it daily. How do “micro” disruptions affect your resilience?
- You all have to manage up and down your supply chain. Talk about how you support risk management to ensure continuity of operations for your customers.
- Audience Questions

## Module II: Discussion

- Raise your hand to ask a question
  - \*9 to raise and lower hand on the phone



## Wrap-Up and Next Steps

- Bay Area UASI Resource Library (link in chat)
  - Resource links in chat and in library
  - Recording will be available
- Complete the post-seminar assessment
- BA-UASI closing notes



Next Seminar is on **January 11, 2023 – Bay Area Commodity Flows - Findings Following Private Sector Validation**

Link to register is in chat