Improving Resilience of Supply Chains During Disasters
Disasters Are Bad for Business

43% of US companies experiencing disasters never re-open, and 29% of the others close within 2 years

US Department of Labor
WE HAVEN’T BEEN LOOKING AT THE WHOLE PICTURE
Waves or Particles

You can think of the universe as particles, or as waves but not at the same time.
We transportation people have tended to think of the world as

Particles

Infrastructure
When we should be thinking of **Waves**

Supply Chain
A Small Example of Widespread Impact

Volcanic eruption in Iceland (2010) impacted

- Nearby ponies
- European air passengers
- Auto assembly plants in the US, Germany, & Japan
- Rose growers in Kenya
- Manufacturers worldwide
Global Supply Chains of Hard Drives
Assembled in Thailand

Source: ESCAP
Commercial Impact of 2011 Thai Floods

- Thailand is the #2 producer of hard drives in the world
- Floods there resulted in a 30% drop in global hard-drive production
- Company losses
  - Sony $162 million
  - Canon $603 million
  - Western Digital $199 million

Source: AON Benfield, 2012
Japan’s Experience After 2011 Earthquake & Tsunami

90% of the businesses that closed went bankrupt due to indirect losses/damage

- SOURCE: Asian Disaster Reduction Center, Kobe Japan
HOW TO ADDRESS SUCH A WIDESPREAD ISSUE
21 member economies
40% of world population
56% of world GDP
70% of natural disasters

ASIA PACIFIC ECONOMIC COOPERATION (APEC)
Seven Principles

1. *Share information and knowledge to promote supply chain resilience.*

2. Promote disaster risk management and hazard mapping to better understand potential risks to supply chain resilience.

3. Support planning and business continuity management to improve global supply chain resilience.

4. Promote best practice policy, regulations, and flexibility to enable global supply chain resilience.

5. Leverage regional cooperation to support the supply chain, including coordination with other multinational organizations working on supply chain resilience inside and outside the APEC region.

6. *Promote critical infrastructure protection and inter-modalism as a key component of supply chain resilience.*

APEC FIVE YEAR ACTION PLAN FOR IMPROVED SUPPLY CHAIN RESILIENCE
Focus on One Developing Economy Each Year

• Each year, develop an Action Plan for Supply Chain Resilience for one of the APEC economies
  – Involve partners (e.g. World Bank, USAID, companies)
  – Conduct a workshop
  – Facilitate discussions
  – Jointly develop an Action Plan
  – Implement the Action Plan
• 2015 = the Philippines
Promote One Principle Each Year

• Best practices
• Intense workshop with multiple participants from each participating economy
• Cooperation between government, business, NGOs, international organizations

• 2015 = Hazard & risk mapping of supply chains
Working Together to Improve Supply Chain Resilience
Want to Participate With Us?

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