Business sector exposure to climate change risks







Olle Olsson, Sandra Tenggren, Gregor Vulturius, Henrik Carlsen & Magnus Benzie Stockholm Environment Institute



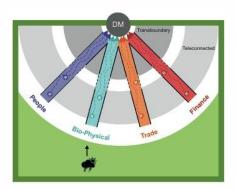






Transnational climate risks

- "Mitigation is global, adaptation is local"
- Or...?











Global supply chains, global risk

- 2011 Thailand flood:
 - US Toyota plants stopped from lack of components
 - Total Toyota losses 1 billion USD
- How to assess climate risks in supply chains?













Two approaches

- Climate vulnerability indicator for business sectors
- 2. Climate risk awareness & risk management strategies in globalized businesses

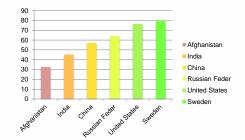








Notre Dame Global Adaptation Index (ND-GAIN)





ND-GAIN for business sectors?

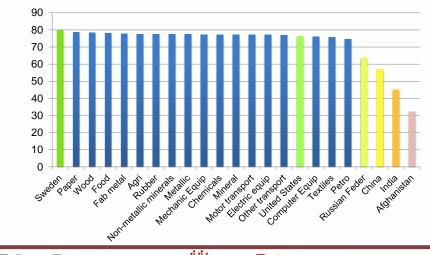








Test case: Swedish export industries



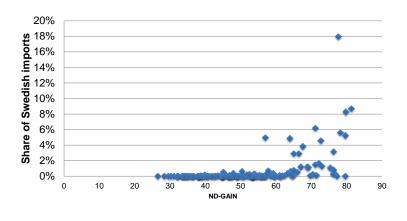








Sweden mostly trades with "high ND-GAIN" countries











Company views on climate risks?

- Interviews with 15 large Swedish companies
- Most have experiences of weather-related supply chain disruptions
 - Thailand flood
 - Goods damaged in sea transit













No real strategies in place

 "Climate" = mitigation, compliance, sustainability, certification...



 Lack of transparency in supply chains beyond tier











Risk management strategies

 Diversification (rare for these sectors)



- · Contractual clauses
- Insurance











Discussion points

- Further work needed to understand supply networks beyond tier 1
- Systematic vulnerabilities?
- · Role of key nodes in supply chains?
- Supply chain transparency!









Bonus material









