From Pandemics to Wildfires, Sustainability and Resiliency in 2020 (and beyond)

BILLY GRAYSON
EXECUTIVE DIRECTOR, CENTER FOR SUSTAINABILITY AND ECONOMIC PERFORMANCE, URBAN LAND INSTITUTE

NOVEMBER, 2020

DISCLAIMER: THIS PRESENTATION WAS DEVELOPED BY A THIRD PARTY AND IS NOT FUNDED BY WOODWORKS OR THE SOFTWOOD LUMBER BOARD.
Some background on me, and ULI
Climate Risk and Real Estate
Cost of Natural Disasters

- **Climatological:**
  Extreme temperatures, droughts, forest fires

- **Hydrological:**
  Floods, landslides and avalanches

- **Meteorological:**
  Storms

Adaptive by Munich Re
For real estate investment, this is important – and complicated

- **Uncertainties** around timeframe, magnitude, and location of short and long term impacts makes planning difficult.

- Financial **shocks** (from debt and equity cost and availability to insurance and utilities pricing) may come before biggest physical risks materialize.

- Short and medium-term **investment horizons** and owner/tenant **split incentives** may complicate long-term resilience planning.

- **Duty to disclose**? Are you more exposed knowing climate risks (and not sharing) or not knowing risks?
New tech for climate assessments
This map: Sea level rise

Scientists agree that human activity is heating the planet. But how quickly could sea level rise, and can we stop it?

LEARN MORE
Assessing real estate portfolios, not just assets
Building climate risk analysis for a real estate portfolio and taking action

- Invest in resilience retrofits at the asset level?
- Advocate for resilience investment at the regional level?
- Work climate risk into my pricing for acquisition and disposition?
- Re-weight portfolios away from higher risk?
- Divest from some markets?
THE BUSINESS CASE FOR RESILIENCE: SOUTHEAST FLORIDA

A Regional Economic Evaluation
Commissioned by the Southeast Florida Climate Change Compact
Building a business case for resilience at the market scale

**Community-wide adaptation** can offer **$37.9 billion** in economic benefits for the region and support **85,000 job years.**

For every **$1** invested in community-wide adaptation strategies, the region will see about **$2** in benefits.

Examples:
- Beach nourishment
- Seawall construction
- Dune restoration

**Building-level adaptation** can offer **$17.6 billion** in economic benefits for the region and support **56,000 job years.**

For every **$1** invested in building-level adaptation strategies, the region will see about **$4** in benefits.

Examples:
- Elevating structures
- Floodproofing

**Benefit-cost ratio for community-wide adaptation:** 2:1

**Benefit-cost ratio for building-level adaptation:** 4:1
Wildfires and climate risk

- 29 million people at risk in the US, 4.5 million homes
- $1.3 trillion in the WUI
- Wildfires are triggering first climate change-related bankruptcies
- Smoke and fire – are major markets at risk for a climate-related migration?
Wood design as a resilience solution
Climate Mitigation and a Path to Zero Net Carbon
Global leaders and markets are starting to respond
2021?

- A plan for net zero by 2050
- International climate change engagement
- Climate resilient infrastructure initiative
- Corporate climate change reporting
- New federal lands policies, with a climate change focus
- Deep investment in green jobs, with a focus on social equity

A commitment of $1.7 trillion for this $5 trillion initiative
Connecting Adaptation and Mitigation – a pathway to zero

- Investors feeling more comfortable about pathway to zero by 2050 (if not sooner)
- Leveraging frameworks to evaluate climate risk and mitigation strategy together (TCFD)
- Markets responding through Green bonds and new net zero real estate funds
Climate change and “Embodied Carbon”

- **Embodied carbon**: GHG emissions attributed to manufacturing and transporting construction materials, the process of construction, and building disposal.

- Can account for as much as half of a building’s total carbon footprint over its lifetime.

- Structural systems can comprise up to 80 percent of a building’s embodied carbon
  - Traditional structural materials include concrete, steel, and synthetic insulation

Buildings focused on embodied carbon.
Healthy and social equity in the age of COVID-19
What we are learning from COVID-19

- We are not as resilient as we could be
- Climate commitments still strong, but short-term the focus is on health and social justice
- Economic recovery? we aren’t sure if this will be V, W, U, or other-shaped. Implications for private and public sector
- Our buildings aren’t pandemic-proof. So what does it mean to say they are healthy?
- Inequality is making health disparities worse for people at the bottom – and this is driven by race as well as income.
What we are learning from a summer of racial justice

- Racial disparities persist, and in some ways are getting worse
- “Structural racism” still drives this inequality, in community investment, education, health care, and even zoning and urban planning
- The real estate industry has a long way to go in efforts to drive diversity, equity, and inclusion.
- The real estate industry (in partnership with local governments) can be a major part of the solution.
A role for wood in health and social equity?
From Pandemics to Wildfires — what’s next?
Thank you

Billy.Grayson@uli.org