RESPONDING TO LOCAL CLIMATE RISK THROUGH COLLABOARTIVE ACTION

PURPOSE

The objective of this educational workshop was to identify local climate related business risks and explore potential collaborative strategies to mitigate these risks in Cambridge. A panel of local experts spoke about business risks of a changing climate and the strategies that could be used to increase resilience to heat stress, and flooding due to sea level rise, storm surge and increased precipitation. Panelists also discussed how shared business continuity agreements, collective policy and advocacy for key utility and infrastructure reliability, and tools for prioritizing resiliency strategies could help communities prepare for extreme weather events.

PRESENTATIONS

1. Power of Collective Climate Action - James Goudreau, Novartis

Key take-away:

In recent years, there has been an increase in incidents of extreme weather events like storm water surges, flooding due to sea level rise and heat waves. These climate related risks will affect business assets, impact infrastructure, transportation networks, food supply and the social fabric of communities. There is a need to understand these interdependencies, map stakeholders and engage with the larger community to address risks posed by a changing climate. Climate data modeling for communities in the Boston area is available, providing an opportunity for knowledge sharing, greater collaboration and collective action to prepare for extreme weather events.

2. Urban Storm Water Management - Kathy Watkins, City of Cambridge

Key take-away:

The number of days above 90° F could triple by 2030, leading to significant public health impacts. Temperatures will be further aggravated by urban heat island effect, and the increased use of air-conditioning will strain the electric grid. The City of Cambridge is looking at strategies to limit projected increase in cooling demand (eg. high performance envelope requirements for buildings) and reduce urban heat island effect by increasing tree cover. Further, increased precipitation during extreme weather events is projected to increase flooding in existing areas that flood and parts of the city not prone to flooding. Strategies for flooding preparedness should include measures like building walls, raising utilities, designing open spaces to protect building infrastructure, as well as sub-neighborhood scale and regional measures.

3. Sea Level Rise/ Storm Surge Protection – Indrani Ghosh, Kleinfelder

Key take-away:

Predicted sea level rise and storm surge (SLR/SS) conditions caused by flanking and/or overtopping will affect drainage infrastructure leading to flooding of low lying areas. It is recommended that critical infrastructure is planned for a range for values and the risk is continuously reassessed as more data becomes available. Resiliency should include a combination of strategies that look at preparedness before an event, maintaining critical building functions and people safety during, and recovery after the event. Neighborhood scale interventions that include strategies to protect building systems, should work together with regional scale planning efforts.

4. Shared Business Continuity Services – Suzanne Blake, MIT

Key take away:

An increase in extreme weather related business disruptions require organizations to be in a constant state of preparedness. Business continuity planning (BCP) efforts should combine policy, coordination and operational decisions. An effective business continuity plan will include representatives from all business units, buy in from senior leadership and a strategy by which continuity of critical functions will be achieved.

In case of emergency where critical operations may be relocated to an alternate site or involve contracting with third parties it is important to ensure that other community businesses are not competing for the same resources. Exploring how a shared business continuity agreement would look like will help address some of these issues.

KEY DISCUSSION POINTS

- **What are some strategies that businesses can work together on?**

Given the interdependence of key infrastructure, fostering discussions between private stakeholders will add to the City's ongoing efforts to address risks from increasing temperatures, precipitation and sea level rise. Conversations around climate related business risk should be framed around 'business continuity planning' in a way that interests people and highlights how it is going to impact them. In addition, businesses can work together to identify solutions and investments needed to protect existing and future infrastructure from extreme weather events.

- **Should business continuity plans organize around a threat or a solution?**

Business continuity plans should take both into account. It takes a wide level of engagement across the organization and with community to come up with a plan that addresses locally specific business risks. Instead of starting with a solution, local measures that are already in place should be captured and individual, community and regional actions identified. Some actions can be implemented quickly, others might need a policy intervention. Business continuity plans evolve to respond to changing scenarios as more data becomes available.

- **Which stakeholders are we going to engage with and when?**

Universities, business associations, local government and local groups are already doing a lot of work on this. Instead of duplicating efforts the focus should be on documenting what has been learned and exploring collaborative action. For instance, a tabletop exercise can be an opportunity for businesses to share and improve strategies for emergency response and continuity of operations.

KEY POINTS FROM GROUP DISCUSIONS

- Business continuity planning (BCP) should include risk assessment, business impact analysis, and a strategy to prioritize the departments/ functions that need to continue in case of an emergency. BCP should work through different scenarios, understand requirements and the risks it's being designed for. Today software tools can help enhance business continuity plans and respond more effectively during an emergency.
- Explore opportunities for collective action on climate resiliency with the venture capital community.
- Health risks posed by extreme heat are less understood by residents. Communities can build resiliency to impacts of extreme heat by implementing strategies that promote energy efficiency improvements while yielding a co-benefit of reducing urban heat island effect.

NEXT STEPS

- MIT to convene a planning meeting to identify goals and structure for a Cambridge business continuity tabletop exercise. The purpose of the tabletop exercise will be to evaluate proposed strategies and priority needs for ensuring business continuity in the face of emerging climate risks for diverse stakeholders including the City, Cambridge businesses and institutions.
- Harvard or MIT will aim to host the climate risk tabletop exercise in the fall of 2017.

LIST OF PARTICIPANTS

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