

# TED Talk: Eco-Edition

## Environmental Hazards and Community Resilience

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**Institute for Sustainability,  
Energy, and Environment (iSEE)**

- Ph.D. student in Civil Engineering at UIUC
  - Focusing on Sustainable and Resilient Infrastructure Systems
  - M.S. in Civil Engineering in the area of Energy-Water-Environment Sustainability
  - B.E. in Civil Engineering from the American University of Beirut in Lebanon
- Graduate Educational Intern in the Education & Outreach Team at iSEE
  - Organizing the Environmental Leadership Program (ELP)
  - Coordinating two Critical Conversation forums on climate (in)securities and climate-smarter commodities





# Increasing natural disasters are putting cities at risk

A photograph of a coastal landscape at night. In the foreground, there's a dark, silhouetted hillside or coastline. In the background, the ocean is visible under a dark, cloudy sky. Some lights are visible on the left side, suggesting a city or town in the distance.

**Climate and weather related disasters surge five-fold over 50 years, but early warnings save lives – WMO report**

(United Nations, 2021)



# Increasing natural disasters are putting cities at risk (cont.)



**Climate and weather related disasters surge five fold over 50 years  
but early warnings save lives – V**

(United Nations, 2018)



**Majority of the world's cities highly exposed to disasters, UN DESA warns on World Cities Day**



# Increasing natural disasters are putting cities at risk (cont.)



## Climate and weather related disasters surge five fold over 50 years but early warnin

Whether or not disaster risk is factored into investment decisions in urban development will have a decisive influence on the future of disaster risk reduction.

UNDRR, 2013



(UNDRR, 2013)

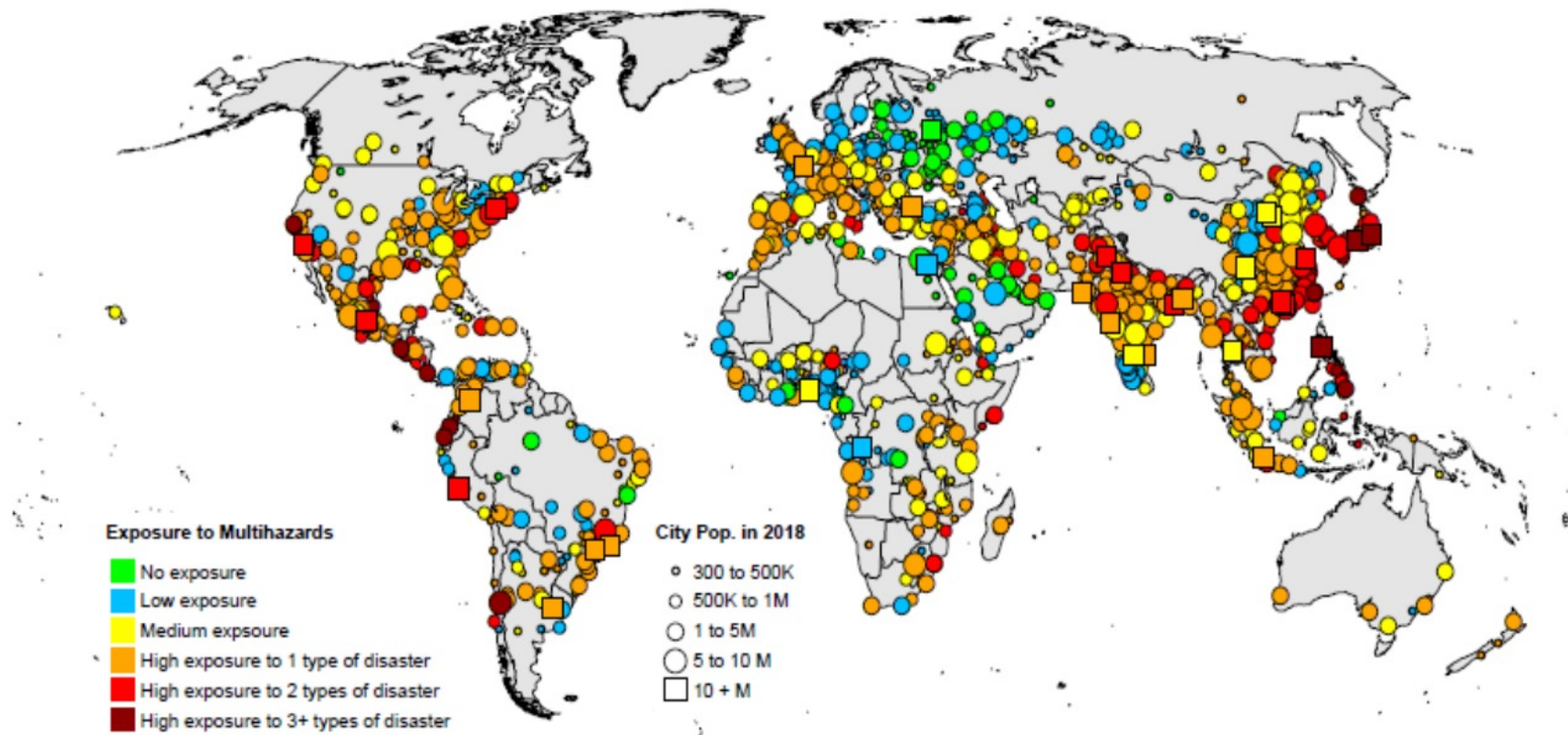


**Majority of the world's cities highly exposed to disasters, UN DESA warns on World Cities Day**

# Exposure and vulnerability to natural disasters for world's cities



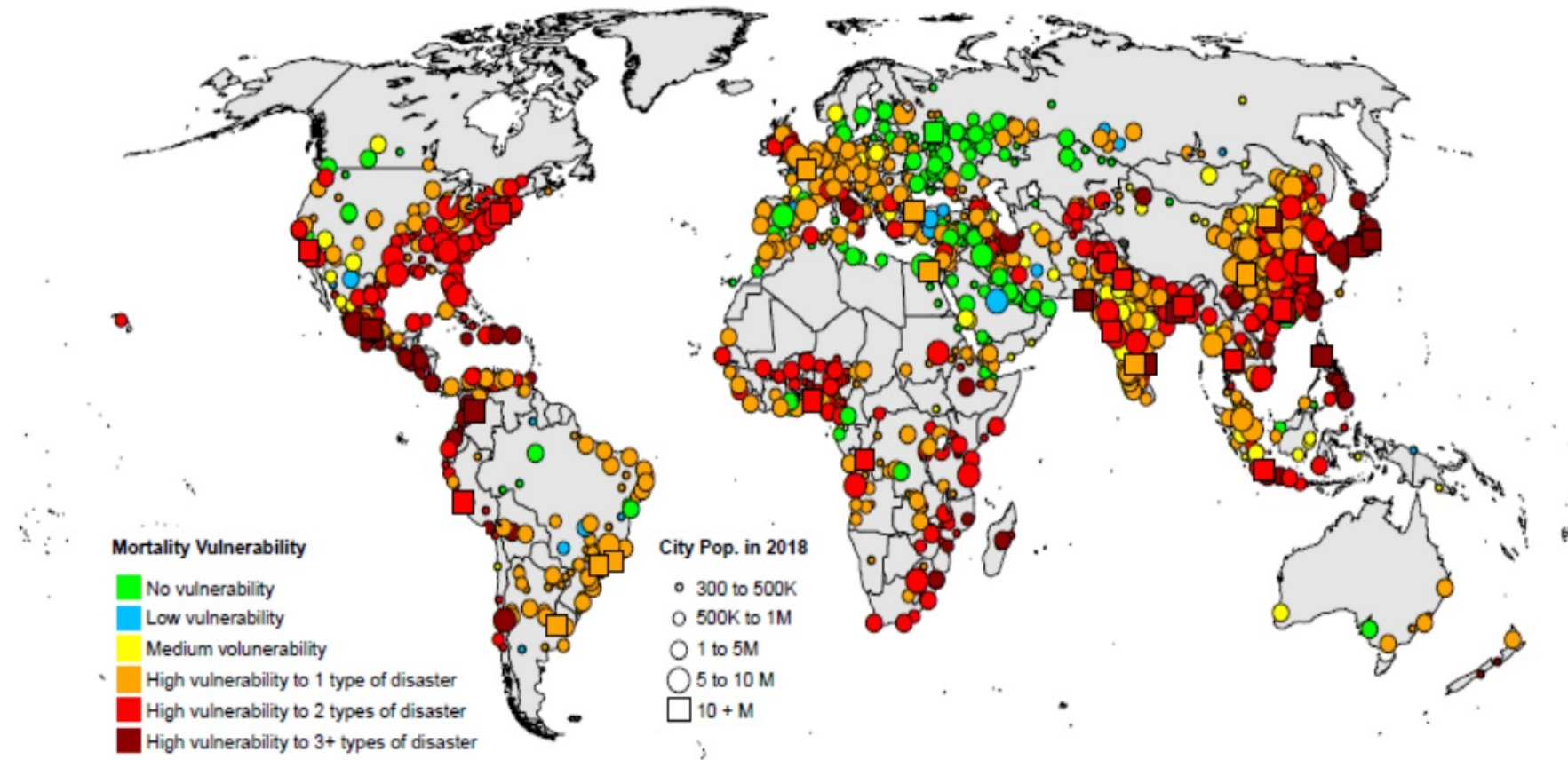
Location of cities by population size and level of exposure to natural disaster in 2018



(United Nations, 2018)



Location of cities by population size and level of vulnerability to disaster-related mortality in 2018



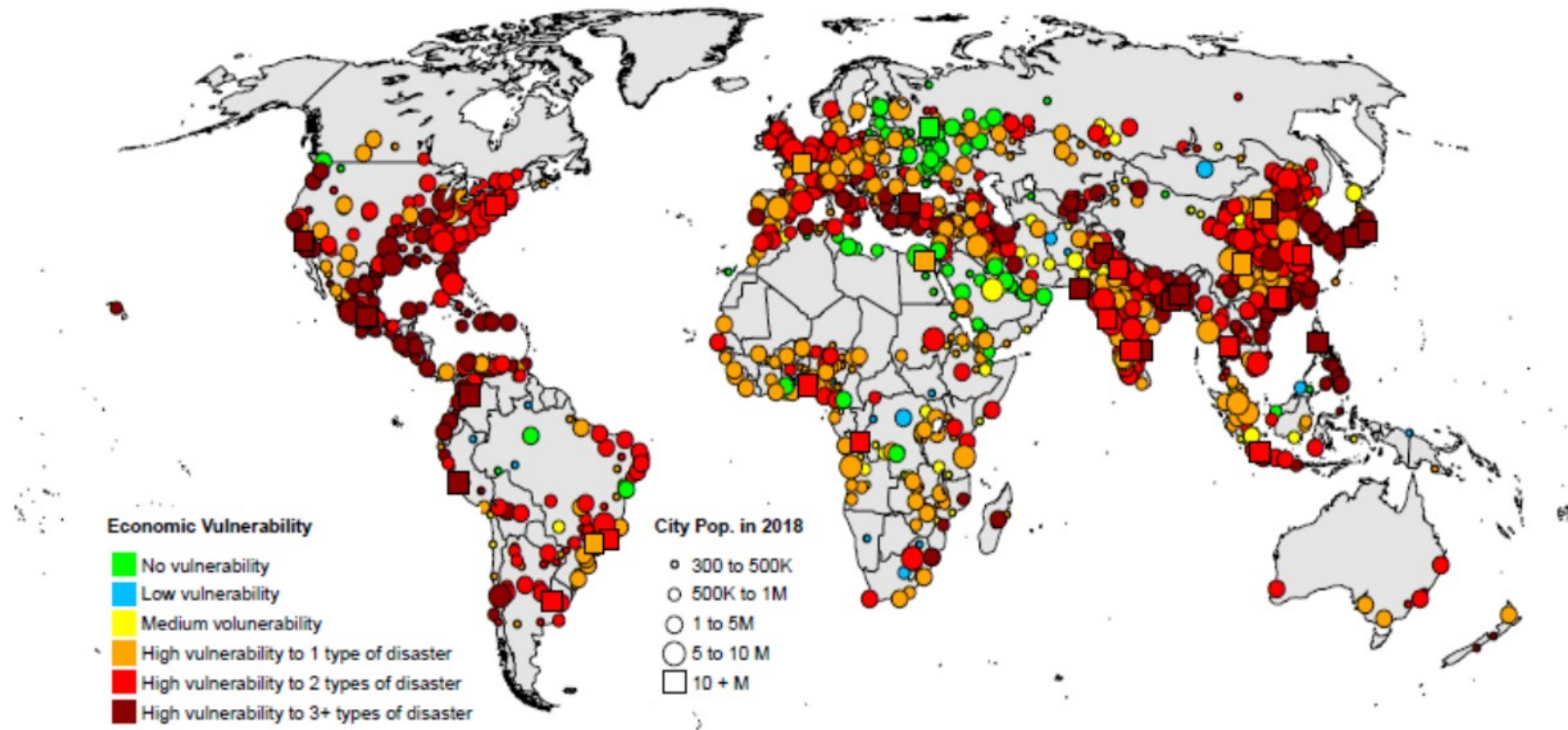
(United Nations, 2018)



# Exposure and vulnerability to natural disasters for world's cities (cont.)



Location of cities by population size and level of vulnerability to disaster-related economic losses in 2018

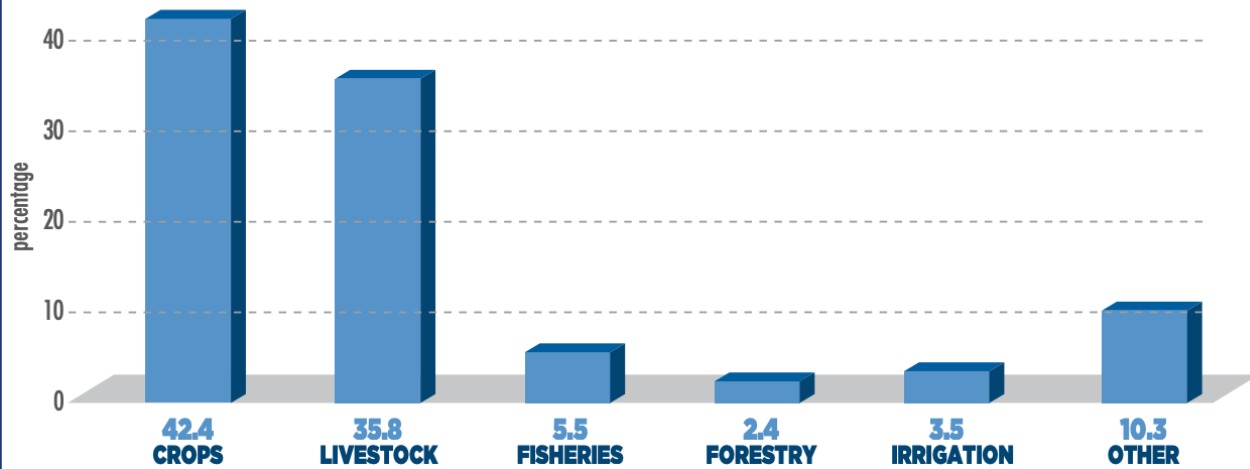


(United Nations, 2018)

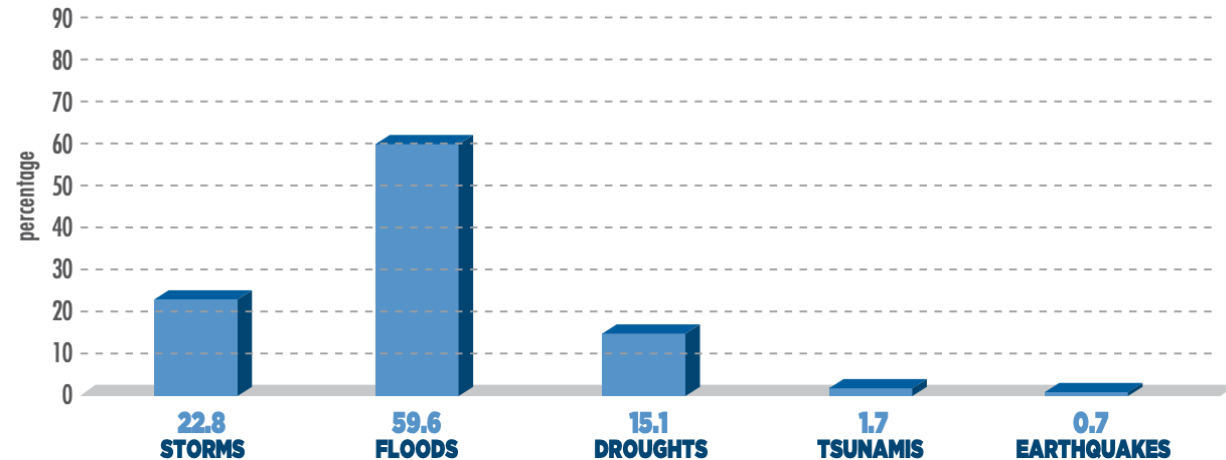
# Natural disasters are also impacting agricultural areas



**Damage and losses to the agriculture by subsector, percentage share of total**



**Average percentage share of damage and loss to crops by type of hazard**



(FAO, 2015)



- The Resilience Team was formed in 2019 following a joint climate resilience proclamation from the University of Illinois and the cities of Urbana and Champaign
- It is tasked to coordinate with the other iCAP Topical Teams (Education, Energy, Zero Waste, etc.) to develop recommendations for the iCAP Working Group and the cities of Urbana and Champaign
- This Team aims to bring campus and the greater community together to tackle vulnerabilities to extreme weather and climate change

(iSEE, 2020)



ILLINOIS CLIMATE ACTION PLAN 2020

## RESILIENCE



WHERE WE'VE BEEN

- Chancellor Jones and the mayors of Champaign and Urbana signed a proclamation affirming their commitment to community resilience (2018)
- The Resilience SWATeam was formed (2019)
- The community worked together to slow the spread of COVID-19 and support vulnerable residents (2020)

WHERE WE'RE GOING

- Establish a local carbon offsets program by FY24
- Develop an urban biodiversity master plan for Champaign, Urbana, Savoy, and campus by FY24
- Publicize an environmental justice plan by FY24

"Future generations will be able to enjoy the University of Illinois and all of its beauty due to our current efforts."  
— Anna Riedl '22

Learn more: <http://go.illinois.edu/iCAP2020>



- Which environmental hazards or climate-related insecurities are you most concerned about in the near future and why?
- How do you think these events affect different communities in cities?
- What are some of the needed strategies to increase community resilience in the face of natural hazards on a local, state, and national level?
- Are there some actions you plan to take to improve the resilience of communities in your area?

**Thank you!**  
**Questions?**



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