

Vanderbilt Climate Change Initiative (VCCI)

Overview

The Vanderbilt Climate Change Initiative is a multi-disciplinary program engaged in a broad range of climate change related projects at the local, regional, national, and international levels. From cutting edge research and project development to stakeholder engagement, education and outreach, our aim is to improve decision making at the individual, community, and systems level; and to bring together a wide range of voices and skills to address this critical societal problem.



Our work is varied and diverse, including:

- Employing climate models to characterize the frequency and severity of future chronic and episodic events
- Perform climate change and extreme weather vulnerability assessments to understand and quantify risk to critical infrastructure
- Analyzing underrepresented and at-risk population exposure to extreme weather scenarios
- Performing flood scenario impact assessment
- Using “big-data” to study disruptive events and perform loss and damage estimation
- Identifying and testing cost-effective adaptation strategies
- Developing risk maps and dashboards to improve stakeholder communication and facilitate engagement towards achieving consensus solutions
- Exploring innovative methods for using social media to improve disaster response
- Developing integrated resilient and sustainable capabilities
- Developing methods to model the recovery process from catastrophic events
- Performing legal and policy studies of climate law and governance, both domestic and international, including private and public sector climate risk assessment and disclosure
- Participating in the annual Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change and collaborating with international researchers to support the work of developing countries
- Developing a risk education curriculum to prepare young people to become future leaders in making informed decisions in addressing this critical societal challenge

