

Building Resilience to Climate Impacts

Task Force Meeting

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Climate Leadership Commitments Signed by University of Illinois at Urbana-Champaign



The Climate Commitment

Integrates a goal of carbon neutrality with climate resilience and provides a systems approach to mitigating and adapting to a changing climate. Designed to blend these two critical components of climate leadership.

Mo



The Carbon Commitment

Focused on reducing the emissions of harmful greenhouse gases to zero and mitigating campuses' contribution to climate change.



The Resilience Commitment

Focused on climate adaptation-specific goals, as well as building community capacity to deal with a constantly changing climate and resulting extremes.



Second Nature

- The Climate Leadership Commitments are a signature program of Second Nature
 - Carbon Commitment
 - Resilience Commitment
- Second nature is a non-profit organization with a mission for moving towards sustainability through actions and innovations at institutions of higher education
- Formed a Climate Leadership Network that includes more than 600 colleges and universities that have committed to
 - Take action on climate
 - Prepare students through research and education to solve the challenges of the 21st century



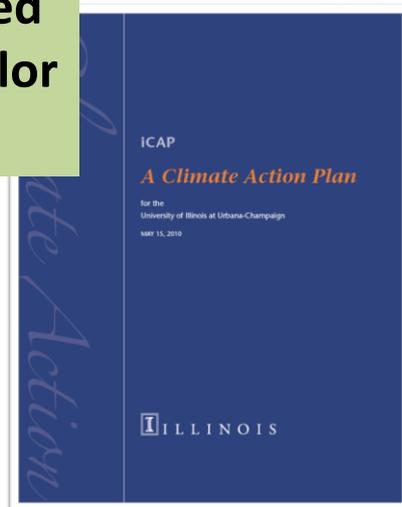
Carbon Commitment

Signed by Chancellor
Herman in 2008



AMERICAN COLLEGE & UNIVERSITY
PRESIDENTS' CLIMATE COMMITMENT

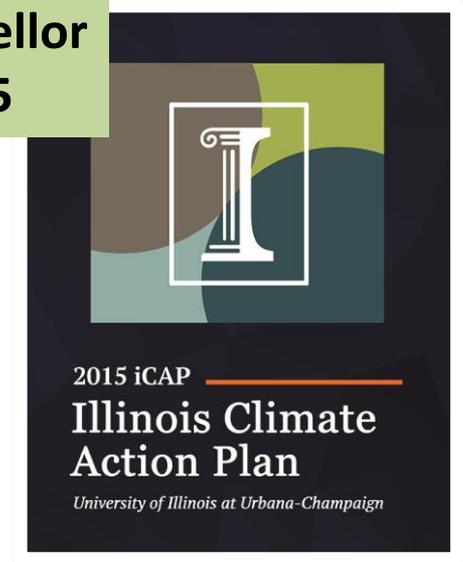
2010 iCAP approved
by Interim Chancellor
Easter in 2010



2015 iCAP objectives
are in progress



2015 iCAP approved
by Interim Chancellor
Wilson in 2015



Resilience Commitment



Develop a Climate Action Plan to increase resilience to climate impacts

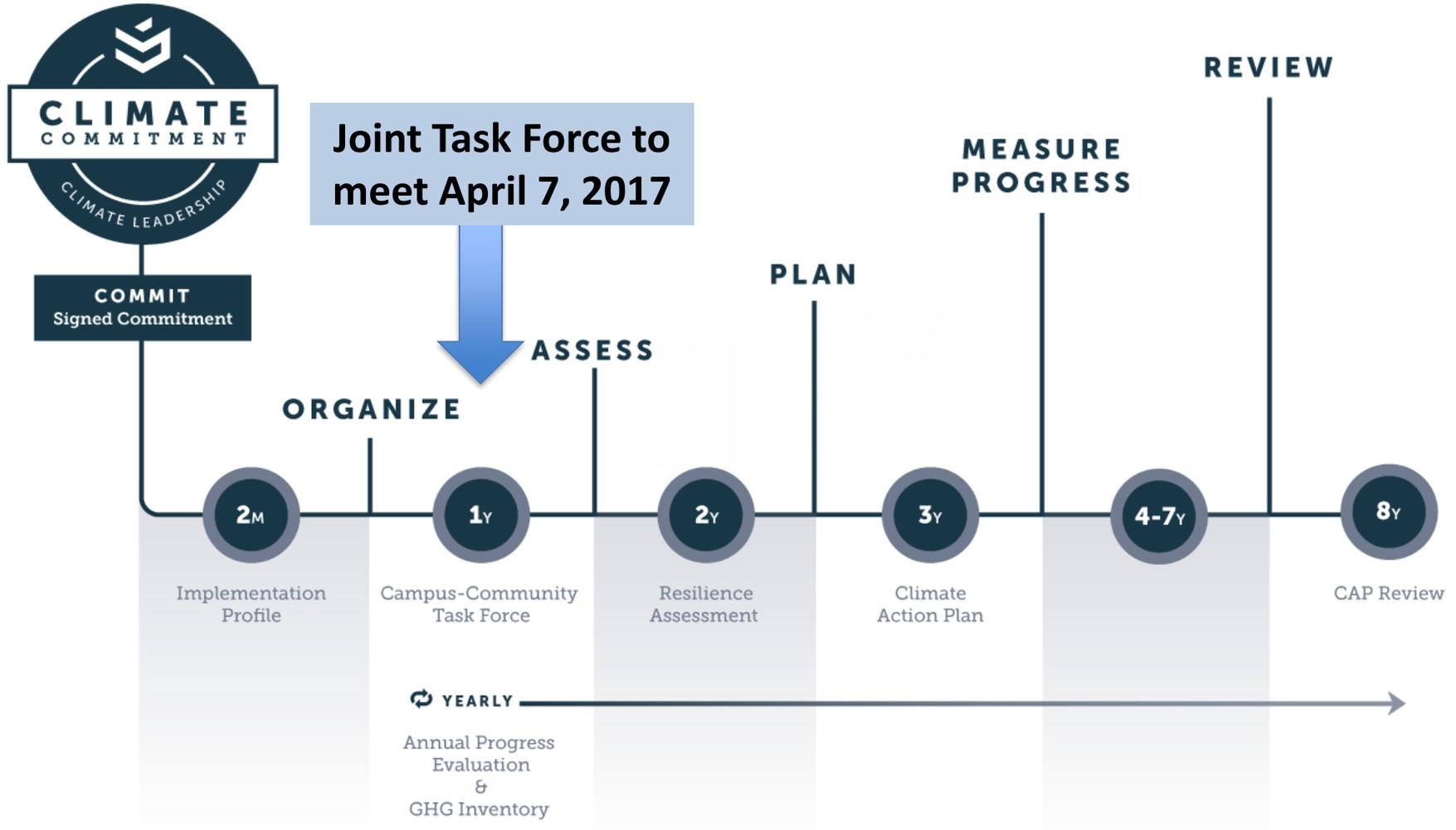
Support a joint campus-community task force to ensure alignment of the Plan with community goals to facilitate joint action

Campus-Community resilience assessment

Identify thresholds of resilience

Targets for meeting milestones for increasing resilience

Resilience Commitment



RESILIENCE PLANNING AT OTHER CAMPUSES IN THE US

- A new issue at most campuses
 - taken up since 2015.
- Resilience plans in the process of formulation mostly by 2020
- Different campuses has taken different approaches to resilience/adaptation strategy

Resilience Planning

Focus on Biodiversity

Emergency response plan

Education and research

Outreach and coordination

FOCUS ON BIODIVERSITY

UNIVERSITY OF ILLINOIS, CHICAGO

UIC climate commitments:

Biodiverse Campus. UIC will create a resilient campus landscape supportive of a variety of life, such as plants, animals, and people. (Climate Commitment Overview, April 2016)

Short-Term Action Items

I. Promote Local Produce on Campus

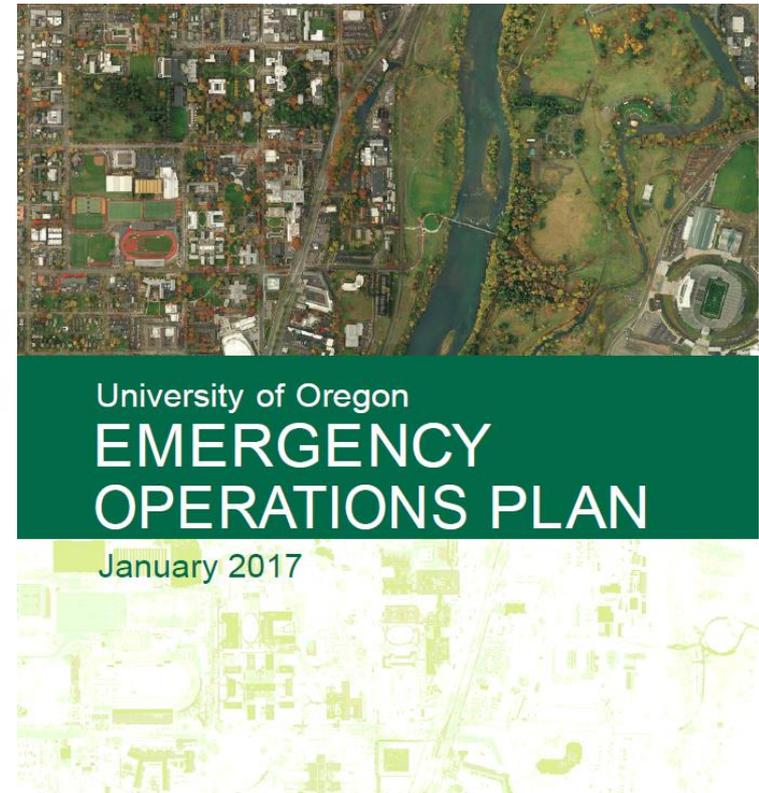
- i. Host a farmers market and bring local and regional food to the campus community.
- ii. Investigate the utilization of UIC'S greenhouse area near the Plant Research Laboratory for food production.
- iii. Include provisions to increase local food sourcing in future food service contracts.

II. Enhance Tree Canopy and Diversity

- i. Increase tree biodiversity by planting no more than 5% of the campus tree inventory with trees of the same species and 10% of the same genus.
- ii. Increase tree canopy coverage to 25% by 2030.
- iii. Use sustainable landscaping methods on campus.

EMERGENCY RESPONSE UNIVERSITY OF OREGON

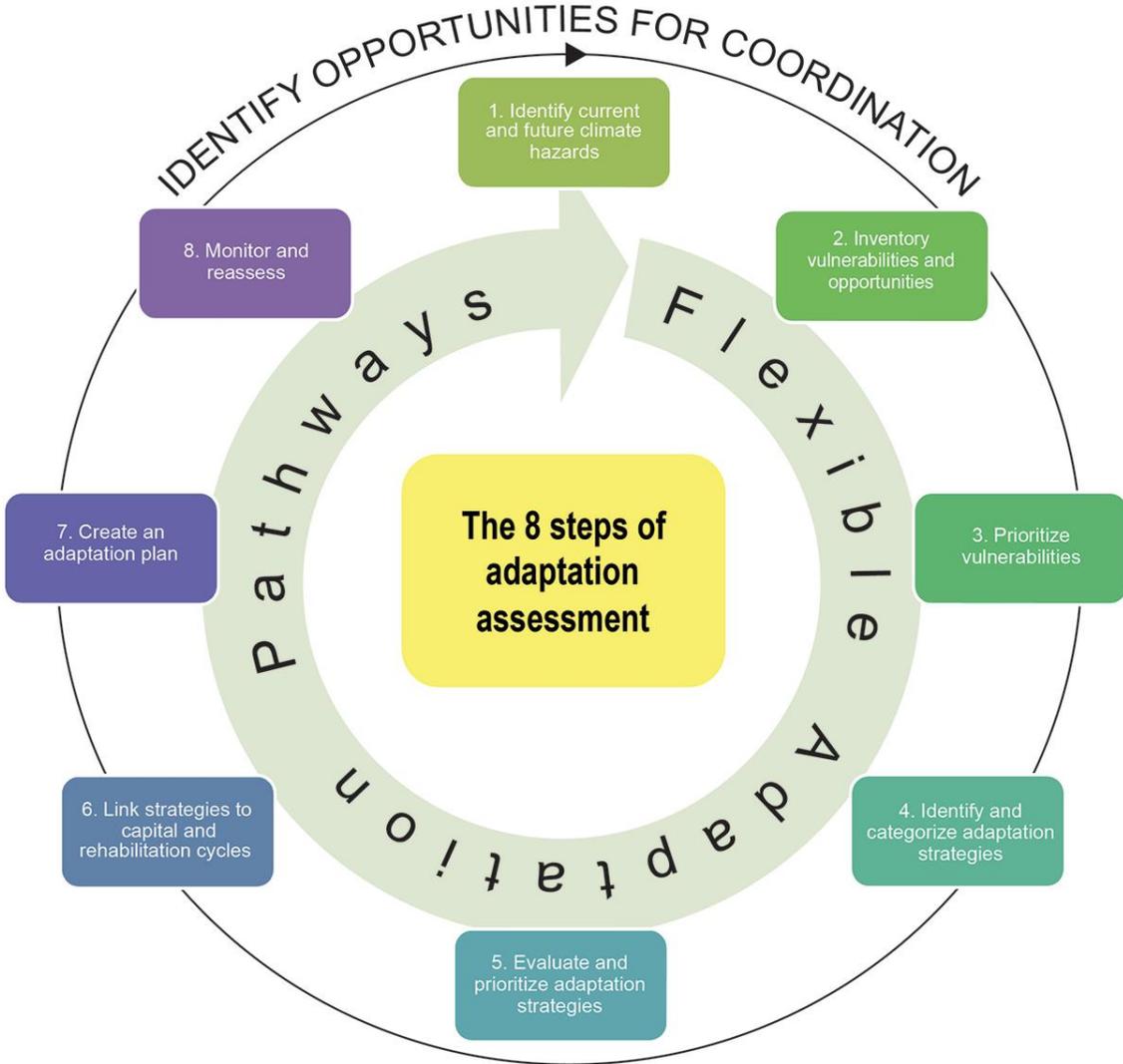
- Overview of possible hazards
- Emergency response Protocol
- Emergency management structure
- Emergency Management training
- Plan development and maintenance



EDUCATION AND RESEARCH

- Undergraduate/graduate level courses
 - Climate Change Minor, Earth and Atmospheric sciences, College of Agricultural and Life sciences, Cornell Engineering
 - Risk and resilience, Master in Design Studies, Graduate School of Design, Harvard University
- Institutes dedicated to climate and resilience research
 - Institute for Climate Change and Agriculture at Cornell.
 - The Harvard Office for Sustainability (OFS)
 - Climate Readiness Institute (CRI), UC Berkeley and UC Davis

FRAMEWORK FOR RESILIENCE PLAN



Cornell University

Some Concepts

Vulnerability

Vulnerability to climate change is the degree to which systems are susceptible to, and unable to cope with, adverse impacts of climate change.

Adaptation

Actions that reduce the level of physical, social, or economic impact of climate change and variability, or take advantage of new opportunities emerging from climate change.

Exposure

The degree to which elements of a climate-sensitive system are in direct contact with climate variables and/or may be affected by long-term changes in climate conditions or by changes in climate variability, including the magnitude and frequency of extreme events.

Sensitivity

The degree to which a system will respond to a change in climate, either beneficially or detrimentally.

Adaptive Capacity

The ability of a system to adjust to actual or expected climate stresses or to cope with the consequences.

U OF I RESILIENCY PLANNING

- Identify likely climate impacts for Champaign county
- State of knowledge on assessment of the level of vulnerabilities
- Current state of preparedness to deal with climate hazards and risks
- Develop priorities for addressing vulnerabilities
- Strategies for adaptation

FOR TODAY'S DISCUSSION

- What are the climate impacts we should be considering?
- Formation of the task force
- Existing resources for assessment of vulnerabilities
- Ongoing efforts to assess and address vulnerabilities