











Floods: Will floods be more frequent and intense? How can we mitigate or prepare for them?

Refugees: Will Binghamton attract climate refugees from the coast and other regions? What will they do? Where will they go? How can we integrate them into our community for mutual benefit?

Art: Can we use art to envision life in Binghamton under two degrees of warming? Can we use it to prepare our hearts?







Max Pensky (Philosophy and I-GMAP) on climate refugees:

I can tell you about how climate change is a threat multiplier in places like the Sahel in Africa, where we know a good deal about what other kinds of push factors that climate change multiplies. We don't yet know very much about the push factors that climate change combines with in the United States.

Leslie Heywood (English and Creative Writing) on art and envisioning:

Creative activities like writing stories and poems, creating video essays, documentaries, dance, theater; all of these are participatory activities. [T]hey are one of our best hopes for facilitating some kind of climate change mitigation in local settings. Because these activities are what help us imagine not "what is," but "what if."

Monica Adams (Social Work) on advocacy around food:

[Saying] the City of Binghamton needs to do something to make food affordable for these people who are poor, that's going to fall on some deaf ears. [...] But if we talk about the price of food in a broader context of advocating with regard to climate change, then when we talk about floods, when we talk about catastrophic climate events that wipe out crops, that impacts the cost of food for all of us.



Peter Knuepfer (Earth Sciences) on Binghamton floods:

If you look over the last fifty years, over the last hundred years, over the last hundred and fifty years, [...] the frequency and intensity of floods has demonstrably increased. [If you look at a representative] 1% event, or one-in-a-hundred-year flood, you would predict that fifty years ago, it would be a certain size. How you would predict that today based on increased numbers of floods at large magnitudes, you would increase that size by about twenty or thirty percent.

Barry Brenton (Civic Engagement and Anthropology) on changing demographics:

Right now, a lot of the hotels [in greater Binghamton] are filled with people who are displaced from New York City where they can't find housing.[...] There are food services up and down Vestal Parkway but people aren't connected to that, so you get these hotels filled with people with no access to food.

Hiroki Sayama (SSIE and CoCo) on system survivability:

From [... a] complex systems/systems science [perspective], the importance of diversity is the key for the survival of any kind of system. In this case, diversity could mean [...] diversity of approaches, diversity of ideas, diversity of models. [...] **If we just grab on to "the right answer" I bet we will most likely fail** [emphasis added]. If we collectively try to grapple the same problem with multiple approaches, that will give a much, much higher chance that the community will survive.



Mission of the Binghamton 2 Degrees Initiative

- Strive to answer the fundamental question of "What will Binghamton look like under two degrees of warming and what can we do now to prepare?"
- Make climate change present and pressing under the hypothesis it will help activate practical, local solutions;
- Help Binghamton thrive under two degrees of warming;
- Coordinate, facilitate, foster, and support education, research, and creative activities around the mission; and
- Share the 2 Degrees approach with other communities.





Two types of Binghamton 2 Degrees events:

- 1) Public/Outward-facing/Participatory Events
 - * Communication, education, engagement, marketing

Data, Modeling, Prediction, and Understanding:Research and Creative Activity Working Groups* Building our own understanding





Public/Outward-facing/Participatory Events

Six Topic Months:

Sept: Climate Science

Oct: Food

Nov: Health

Feb: Energy

Mar: Floods and other

Disasters

Apr: Housing and

Refugees

TO CHANGE EVERYTHING, WE NEED EVERYONE

Examples of coordinated monthly events:

- Panels for community and campus engagement
- Binghamton 2 Degrees: Live at Confluence Park art and music festival about climate change
- Creative activities: Theater, music
- "Experiential Events" like altering food options or adjusting the temperature of buildings
- Designated departmental academic speakers
- Campus/community events
- The 1MW carbon tracking app for the university and the community
- Competitions between dorms/buildings
- Student data/modeling, policy, and creative activity competitions



Data, Modeling, Prediction, and Understanding: Research and Creative Activity Working Groups

Working groups can:

- Gather local data (surveys, direct measurement, etc.)
- Share data
- Develop models
- Seek grants
- Produce creative activities
- Produce academic conferences, papers, books, exhibitions
- Contribute to the 2 Degrees guide for other communities

Working groups for:

- Microgrids with low carbon energy production and storage
- Evaluating the hypothesis that making climate change present and pressing will help activate practical, local solutions
- Local food systems
- Housing
- Flood mitigation
- Disease and health
- Refugees
- Biodiversity and biodiversity loss
- Information and communication (and misinformation)
- ...



Events:

Art, Science, Engagement







Art Exhibits







Participatory Art and Writing







Interactive Tabling with Partner Organizations









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- "I believe a million women will tell a million more and lead a million communities."
- Natalie Isaacs, 1 Million Women founder

- Founded by Natalie Isaacs in Australia
- Pledge of 1 Million Women (1MW) to reduce 1 ton of carbon from their footprint
- Small steps to reduce food waste or energy consumption can make a big difference
- Climate action doesn't have to be grandiose; anyone can do it
- You don't have to be a person in power to create change

1M Ready Campaign

https://www.1millionwomen.com.au/





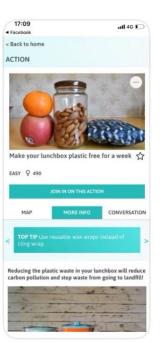
"WE ARE WOMEN AND GIRLS FROM EVERY CORNER OF THE PLANET BUILDING A LIFESTYLE REVOLUTION TO SOLVE THE CLIMATE CRISIS.

No matter whether you are a climate warrior or a beginner, the power of this app is to show in real-time our collective impact when we all act together"

The App







- Collaboration of the Kaschak Institute, Binghamton 2 Degrees, Sustainable Communities, Office of Sustainability, the Center for Civic Engagement, etc. with 1 Million Women
- Launch of the 1MW app and the 1MReady Campaign in the US here at Binghamton University
- Simple way for everyone to get involved and work towards a healthy climate
- Recruitment of student ambassadors to spread the word and get as many people as possible involved in the launch in February



Recreation

Partners

Local Cultural Institutions such as the Roberson Museum and Science Center, and the Broome County Arts Council Student Organizations such as the Citizen's Climate Lobby and Zero Hour

University Departments, Programs, Offices such as ENVI, Public Health, the Sustainability Hub, Ofc of Emergency Mgmt

University Research Centers such as Sustainable
Communities; Citizenship, Rights, and Belonging; Health
Sciences; Smart Energy; Data Science; CoCo
Local Government such as City of Binghamton Parks and





Next event

Binghamton 2 Degrees: The Science Behind Climate Change and our Emotions Surrounding It

When: September 27 (Wednesday), 6pm to 7:30pm

Where: ITC Symposium Hall

Speakers: Molly Patterson, Adriane Lam, and Kirsten Prior

Workshop Leader: Leslie Heywood





Binghamton 2 Degrees

What will Binghamton look like under two degrees of warming and what can we do now to prepare?

Our mission:

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- Make climate change present and pressing under the hypothesis it will help activate practical, local solutions;
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