

Climate Change & Humanity: Conversations, Solutions, and Actions

INSTRUCTOR RESOURCES AND LISTENING GUIDE



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https://soundcloud.com/ehsrc_uiowa

For slide deck, link to feedback form, and more info visit <https://ehsrc.public-health.uiowa.edu/communityengagement/iowa-climate-podcast/>

Resources developed by Jackie Curnick, MDP and Anna Kirchhoff



IOWA

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EPISODE ONE

ORGANIZING FOR THE FUTURE IN LINN COUNTY



TAM MARCUS

**SUSTAINABILITY DIRECTOR
FOR LINN COUNTY, IA**

Linn County Sustainability Department
<https://www.linncountyiowa.gov/1521/Sustainability>

Questions for discussion

- What is Tam's PhD work about? Where is she collecting data and focusing her work?
- Why did Tam run for elected office? What does she say to people who are interested in making a difference?
- How did the Derecho show issues of environmental injustice?
- What are some of the activities of the Linn County Sustainability office?
- What is one take-away from Tam's interview?

Taking it Further

- Inspired by this interview, allow students to pick a scenario of being a scientific researcher or running for public office. Students can create a slide deck, video or other form of presentation to explain their ideas
- For the research scientist (disciplines of public health, biology, environmental science, chemistry, etc.)
 - What topic or issue would you like to research? (include a few facts)
 - What questions would you seek to answer? Hypothesis?
 - What community members and groups would you engage?
- For elected office candidate
 - What issues would you include in your platform and campaign? (include a few facts on the issues)
 - What community members and groups would you engage?
 - What would some campaign activities be?

SLIDE NOTES

Introduction

- From Cedar Rapids, Iowa. She is also a PHD Candidate in Natural Resources and Earth System Sciences, Fulbright Scholar and Activist

Reflect on the Quote

- Tam describes working with all kinds of people and groups, such as the Sierra Club, a former county supervisor and school district.
- Highlight the importance of standing together on a mission or fostering a diverse group of people into these spaces to include many different voices.

Representation in Government

- Tam in her podcast mentions the importance of diversity in these government spaces, reflect on this quote especially it being from the White House, how can they accomplish this goal of diversifying this space
- *Sustainability Plan - Linn County*
 - <https://www.linncountyiowa.gov/DocumentCenter/View/21176/Linn-County-Internal-Sustainability-Report---December-2022>
- *Resiliency Hub - Linn County*
 - <https://www.linncountyiowa.gov/1579/Resiliency-Hub>

What is a Derecho?

- Climate change impacts this especially because the storms are fueled by a hot and moist environment

Iowa Derecho

- Hit every inch of Linn County, everyone has shared this lived experience but everyone's story is different. The west side is the most extreme example, low income homes and mobile homes demolished/unlivable

Environmental Justice

- This definition is long but the different aspects are important. Maybe break down this definition and describe what this would look like for people in policies or laws for example

Environmental Justice 2

- Mention how lower income housing might be closer to a power plant or a landfill, many of times this is very intentional
- Talk about the similarities between this and the civil rights movements, how they are both fighting for a lot of the same basic things

Final Discussion Question

- This is a space for students to apply their new knowledge of what environmental justice exactly means and how this appeared during the derecho for deeper reflection

ORGANIZING FOR THE FUTURE IN LINN COUNTY

EPISODE TWO

SUSTAINABLE COHOUSING COMMUNITIES AND CLEAN ENERGY DISTRICTS



CRAIG MOSHER

**Resilient Sustainable Community Developer
at Iowa City Cohousing**

**Listen to the podcast here:
<https://on.soundcloud.com/Dbrzt>**

<http://iowacitycohousing.org>

Questions for Discussion

- What did Craig do for work before he retired?
- What is Craig's motivation to work on climate change?
- What is a clean energy district? How is the model similar to the soil and water conservation districts?
- What are some successes of the clean energy district? and how does it contribute to the local economy?
- What is a cohousing community? How are they energy efficient and eco-friendly?

Taking it further...

- Research- Do you have a clean energy district in your own county?
- Start your own cohousing community
 - Draw or use pictures from online what you might include in your eco-village/ cohousing community
- Review this website and report on interesting things you learned:
 - <https://www.cohousing.org/>

Activity: Designing a sustainable co-housing community



Who would be on your team?

Ex: potential future residents here, local officials, community champions, urban planners, sustainability experts, local land owners...

What sustainability efforts would you implement?

Ex: solar and wind energy, energy efficient insulation and windows, water recycling, green roofs, compost center, EV charging station...

What community building/social features would you include?

Ex: Community garden/farm, recreation center, meeting house, shared resources like tool or bike library, community events...

Draw: Visualize what your co-housing may physically look like (on the back of this page)



Listen to the podcast and access the curriculum with this QR code (or go to [EHSRC.org](https://ehsrc.org) and find the Iowa Climate Podcast Page under Community Engagement) Questions? Email jcurnick@uiowa.edu

SLIDE NOTES

Introduction

- He is also very passionate about community building and bringing together local champions to come together and enact change

Renewable Energy Sources in Iowa

- Wind energy is by far Iowa's most popular use of renewable energy, with its ability to produce 57% of the states needed energy, and solar is on the rise. But this is not the entirety of the renewables used in the state- feel free to talk about other renewables if there is time/interest!
- Wind energy is clean, affordable, and provides proven economic and environmental benefits throughout Iowa.
- Solar energy is clean, increasingly affordable, and improves grid reliability and stability.

Energy Efficiency

- Shifting out of our old, environmentally dirty energy sources and moving towards more wind and solar energy
- Iowa ranks second nationally with its wind energy installations
- Decorah, Iowa has the most solar panels per capita in the county!!!

Cohousing

- AKA Eco Villages
- "explore them" link on the slide- map of co-housing locations in the US
 - https://www.cohousing.org/directory/wpbdp_category/comm/

International Examples of Cohousing

- Great time to talk about how the world as a whole is striving for a collaborative effort towards sustainability.
- Also noticing aspects of the images that support this low carbon footprint life, for example in the Denmark the large amount of windows, helps to use less electricity on lighting

Clean Energy Districts

- Craig mentioned how these districts are great examples of enforcing the IRA
- A way of combating climate change is through the growth and development of these energy districts, a great step to meeting our climate goals
- Link on slide for CEDI
 - <https://www.cleanenergydistricts.org/>
 - Look through this site and discuss findings

**SUSTAINABLE COHOUSING
COMMUNITIES AND
CLEAN ENERGY DISTRICTS**

EPISODE THREE

STARTING A CLIMATE REALITY CAMPUS CORPS



Anna Kirchhoff

University of Iowa Undergrad Student,
majoring in Public Health

Emma Seward

University of Iowa Undergrad Student,
majoring in Political Science

Listen to the podcast here:

https://soundcloud.com/ehsrc_uiowa/starting-a-climate-reality-campus-corps

<https://www.climaterealityproject.org/campus-corps>

Questions for Discussion

- What lead both Emma & Anna to the Climate Reality Campus Corps club?
- Like Emma & Anna, you all are apart of the younger generation, what do you notice others your age are doing about the climate crisis?
- What in your community is being done/not done to combat the climate crisis?
- Who did Emma say the climate movement is? Why does she believe this?
- What climate related topics bring yourself excitement for the future?

Taking it Further...

- If you were to start a Climate Reality Campus Corps, what would the process be to create it at your school?
- Research- use this link to look at your areas water quality, and compare it to other zip-codes around you. Can you see differences throughout communities?
 - <https://www.ewg.org/tapwater/>

SLIDE NOTES

Introduction

- Emma & Anna both mentioned environmental efforts they're passionate about such as agriculture, ocean/water health and sustainable products, which will be the learning objectives/overview of the slides
- Link on the screen will take you to the Climate Reality website, for reference

Shopping More Sustainably

- A growing percent of the population is trying to make more sustainable choices, but with the rise of sustainable shopping greenwashing comes in... no regulations for greenwashing currently, companies can persuade consumers with their false claims.
- More examples of sustainable products: eco-friendly materials in clothing/textiles (ex: organic cotton), recycled materials, made with renewable resources, plastic free, compostable, etc.

Sustainable Agriculture

- Slide 1. More examples of sustainable practices: organic farming, crop rotation, maybe explaining that these all help to prevent soil erosion and the harsh effects of climate change compared to fields that do not use these practices. It also helps to make fields more resilient!
- Slide 2. Mentioning that sustainable ag practices are on the rise but more are needed to achieve our goals and ensuring farm stability
 - Most farms are generational in Iowa, with many hesitant about changing their practices that they have been passing on, making it hard for a widespread change.
 - 80% of Iowa farmers believe climate change is occurring- which is higher than than Iowa's general public beliefs of 67%

Ocean Health

- Coral Reef renewal is an innovation that is bringing so much hope to this ecosystem and slowly helping to rebuild
- Efforts from NOAA have helped to restore reefs in Hawaii, Florida, and Puerto Rico, also helping recover from events such as hurricanes in the area

Water Health

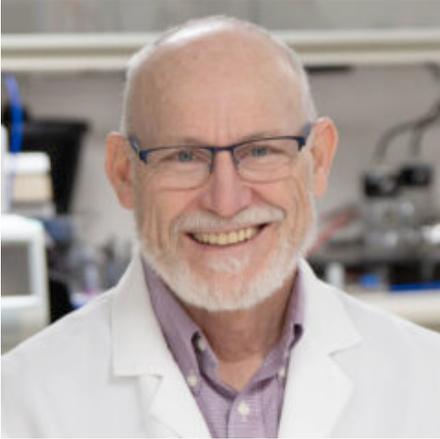
- Also something that could be mentioned is the new proposed policies that are directed towards PFAS and having a stricter limit of what can be allowed in our tap water (policy from EPA)

PFAS

- link at the bottom of the screen, for activity <https://www.ewg.org/tapwater/>

EPISODE FOUR

CLIMATE CHANGE RESEARCH, TEACHING AND LIFESTYLE CHANGE



Dr. Peter Thorne

University of Iowa Distinguished Chair and
Professor of Occupational and
Environmental Health
Associate Director of EHSRC

Listen to the podcast:

https://soundcloud.com/ehsrc_uiowa/research-teaching-and-lifestyle-change-dr-peter-thorne

https://iowaenvironmentalfocus.files.wordpress.com/2022/10/iowa-climate-statement-2022-the-many-benefits-of-our-trees_final_october_5_2022-1-1.pdf

Questions for Discussion

- How does Dr. Thorne serve as a leader to others looking to live a more environmentally friendly life?
- What are the yearly Iowa Climate Statements and why are they important?
- Is there anything in the way of making more sustainable changes in your life?

Taking it Further ...

- Research what current climate events are happening, nationally or internationally. How is this a result of climate change?
- What would it take to make the first actions steps in sustainable lifestyle changes? Individually research/brainstorm then move to small groups and share with the class.
- Dr. Thorne is active in the Scandinavian Climate space, research over climate initiatives, plans, etc. and see what you find. Is there anything interesting or different from the U.S?

SLIDE NOTES

Sustainable Lifestyle Changes

- Carbon Footprint image on the right shows recycling, gas fuel, water, emissions, electricity, transportation, offsets, waste
- Even though the United States' averages are quite high there is lots of room for improvement and its all about making the steps to reaching our goals, even if its gradual. Because it wont happen overnight!

Yearly Climate Statement

- The graph is showing how gradually overtime in Iowa how many hot days we will be having if we continue going down the path we are on (directly from the 2022 statement
 - <https://iowaenvironmentalfocus.files.wordpress.com/2022/10/climate-change-statement-2022-all-4-graphics-1.pdf>

Current Climate Events - Hurricane Ian 2022

- When little hurricanes form they will now grow at a more rapid pace because of the heat. Ian started as a small hurricane but when it traveled across the Atlantic/Caribbean it grew rapidly
- People with lower socioeconomic status are statistically less able to access mitigation measures needed prior to natural disaster because of inadequate education surrounding disaster aid & other related necessary resources

Climate Refugee

- South Africa example: gradual movement overtime because of climate change is happening here, because the average temperatures are increasing annually and the average rainfall is decreasing. This makes it extremely difficult for individuals to grow their food, since the agriculture is heavily reliant on the climate - rain-fed crops.

Current Climate Events- Pakistan Flooding 2022

- This area is struggling with humanitarian issues, left behind still is large bodies of water, hindering people from reconstruction/return to normal life.
 - Bodies of water also serve as a breeding ground for waterborne illness, these bodies of water also destroyed a majority of crops- bringing food shortages

**CLIMATE CHANGE RESEARCH,
TEACHING AND LIFESTYLE CHANGE**