



George Mason University

Climate Action Plan Town Hall

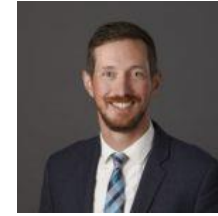
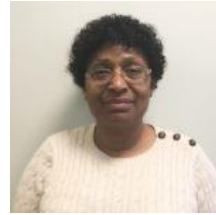
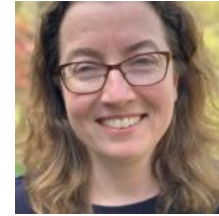
March 9th, 2022

ARUP

Phase 1

What we did

- Established Carbon Neutrality Task Force
- Deep dive into GHG inventory data review
- Updated CAP Baseline to 2019 – utilizing high quality data
- Updated, more ambitious 2030 Carbon Neutrality goal
- Focus on what Mason can most immediately impact
- Living laboratory integration of the CAP strategies
- Develop high level strategies to meet Scope 1 & 2 reduction goals



What we heard

CAP should be actionable, define success criteria and connect to larger strategic decisions

Integrate with faculty, staff and students – provide experiential learning and research

Explore all options for the latest and most innovative sustainable infrastructure

Costs associated with the CAP must not be passed along to students or employees

If Mason wants to lead, it cannot only do what others are doing

CAP should model various opportunities for engagement that could lead to future employment

Mason must practice what it teaches

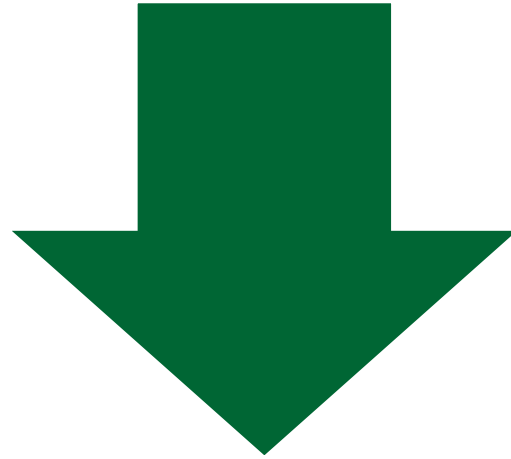
Mason is uniquely positioned to make a big impact in the region with meaningful action

Financial costs of both action and inaction should be quantified

Mason should build reciprocal relationships at all levels: local, regional, state and beyond

2030 is an important target date

Where we ended up

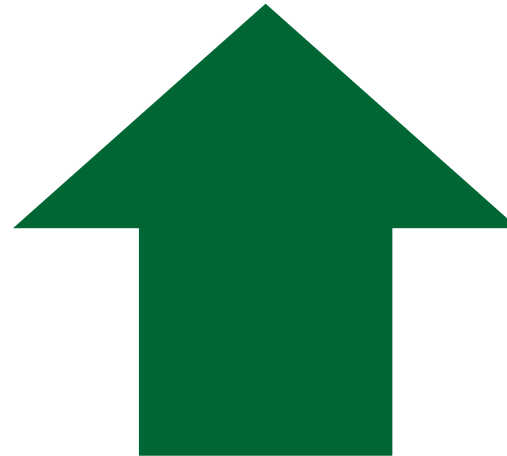


Reductions

- Building efficiency upgrades
- Central plant upgrades
- Decarbonized central plant planning
- Building electrification
- High performance new construction
- On-site PV



Offsets

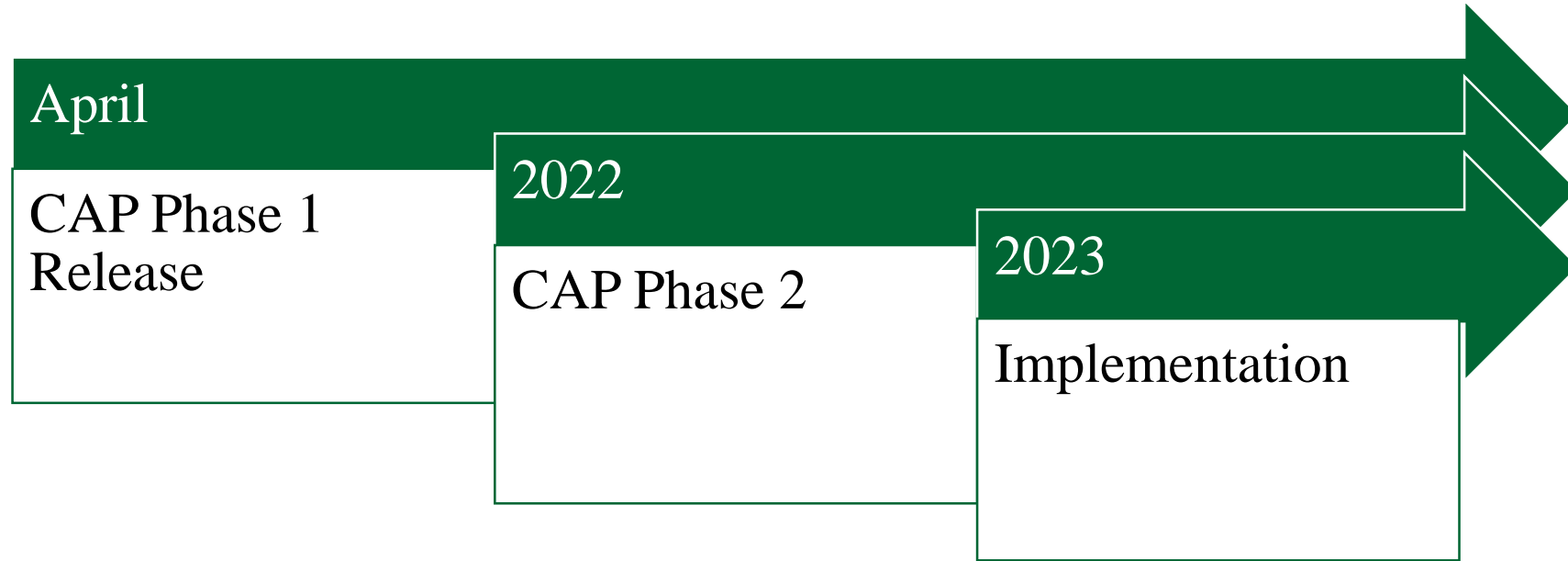


- Carbon Offsets
- Renewable Energy Credits

Phase 1 CAP Vision

- Create a culture of Mason climate champions
 - On campus, in the classroom and virtually
- Preemptively address impacts of our future climate
 - Respond to climate vulnerabilities
- Achieve carbon neutrality of Scope 1 & 2 emissions by 2030
- Enact a plan to equitably address indirect emissions

What comes next





A Just Climate:

Integrating Climate Justice into Mason's Climate Action Plans

Dr. Dann Sklarew *Professor, Environmental Science and Policy*

<http://go.gmu.edu/danncj>

March 9, 2022





THE GLOBAL GOALS
For Sustainable Development



Climate Action Plan Values



- Environmental Justice, the well-being of all people and nature everywhere
- Viable economies and ecosystems upon which wellness relies
- Restoration and protection of nature
- Aligning with the United Nations' Global Goals for Sustainable Development
- Decoupling human development from greenhouse gas emissions due to:
 - Fossil-generated energy
 - Land cover change
 - Certain food and waste practices
 - Other pollution sources
- Learning, inquiry, and creativity, as a destabilizing climate threatens all these endeavors
- Honoring George Mason University, for its efficiency, and its pivotal role in understanding, modeling, and teaching how to thrive in harmony with each other and our shared planet



What is Climate Justice?

“A civil rights movement with the people and communities most vulnerable to climate impacts at its heart.”

~ Former Irish President Mary Robinson (MRFCJ)

<https://www.un.org/sustainabledevelopment/blog/2019/05/climate-justice/>

What is Climate Justice?

Benefits & Burdens of our changing climates are shared equitably among people *(and species)*

Differing social, economic, public health, other impacts on underprivileged.
Address inequities through long-term mitigation and adaptation strategies.

<https://valeclimateconnections.org/2020/07/what-is-climate-justice/>

Link human rights and development for a human-centered approach,
Safeguarding rights of vulnerable, sharing the burdens and benefits of
climate change and its resolution equitably and fairly'

People and the planet are treated fairly as we mitigate and adapt. (MRFCJ)

https://www.mrfci.org/pdf/Geography_of_Climate_Justice_Introductory_Resource.pdf

10 Principles for Just Climate Change Policies in the U.S.

1. **Stop Cooking the Planet**
2. **Protect and Empower Vulnerable Individuals and Communities**
3. **Ensure Just Transition for Workers and Communities**
4. **Require Community Participation**
5. Global Problems Need Global Solutions
6. The U.S. Must Lead
7. Stop Exploration for Fossil Fuels
8. **Monitor Domestic and International Carbon Markets**
9. **Caution in the Face of Uncertainty**
10. **Protect Future Generations**

What is Climate Justice?

Benefits & Burdens of our changing climates are shared equitably among people (*and species*)

Distributive justice: “right to equitable treatment in distribution of benefits and burdens.”

Procedural justice: “right to treatment with equal concern and respect in decisions.”

Corrective justice: “fairness in punishments for lawbreaking”

Social justice: “best efforts made to bring about a more just ordering of society—one in which people’s needs are more fully met”

Mason CAP Focus Groups re: CJ

Distributive justice:

- Think carefully about indirect and unintended consequences and impacts.
- Don't pass CAP implementation costs to students or employees.
- Critically consider EJ issues associated with carbon offsets.

Mason CAP Focus Groups re: CJ

Procedural justice:

- Seek systems change that is multi-racial, democratic, and participatory.
- Seek early, appropriate, and meaningful input from the Mason community.
- Impacted communities must be informed and included in the process.

Mason CAP Focus Groups re: CJ

Social justice:

- Connect CAP to the overall well-being of the university.
- Mason should consider itself an agent for social reconstruction.
- Help change the political economy of the region for good.
- Consider the social justice impacts of solutions detailed in the CAP.
- Justice needs to be factor in CAP process, all analysis and action on Scope 1, 2, and 3 emissions.

Justice in Climate Adaption & Resilience

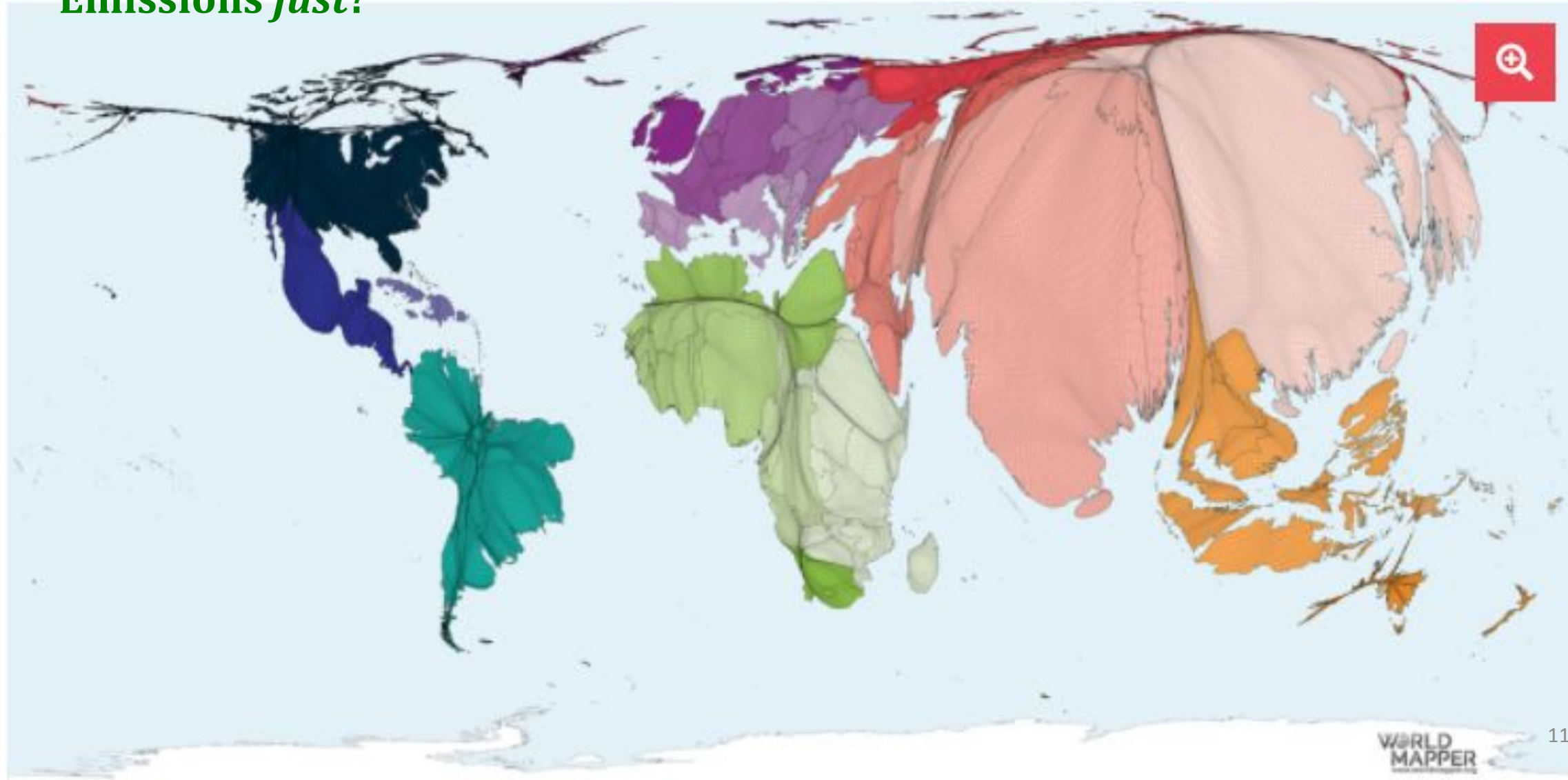
Benefits & Burdens of our changing climates are not felt equitably among people *(or species)*

<http://go.gmu.edu/climatexjustice>

| Change in Climate/Habitat | Resulting Inequity | Harms who/what? | Potential Resolutions |
|---|-------------------------------|-------------------------------|-----------------------|
| > heatwaves & drought | Heatstroke, thirst, crops die | Homeless, elderly, farmers... | Mist shelters? |
| > storms floods | | | |
| > ocean temperature | | | |
| Faster sea-level rise | | | |
| | | | |
| More solar & wind farms | | | |
| Electrification of vehicles | | | |
| Poleward migration of species | | | |
| Tropical diseases go <input type="checkbox"/> poles | | | |

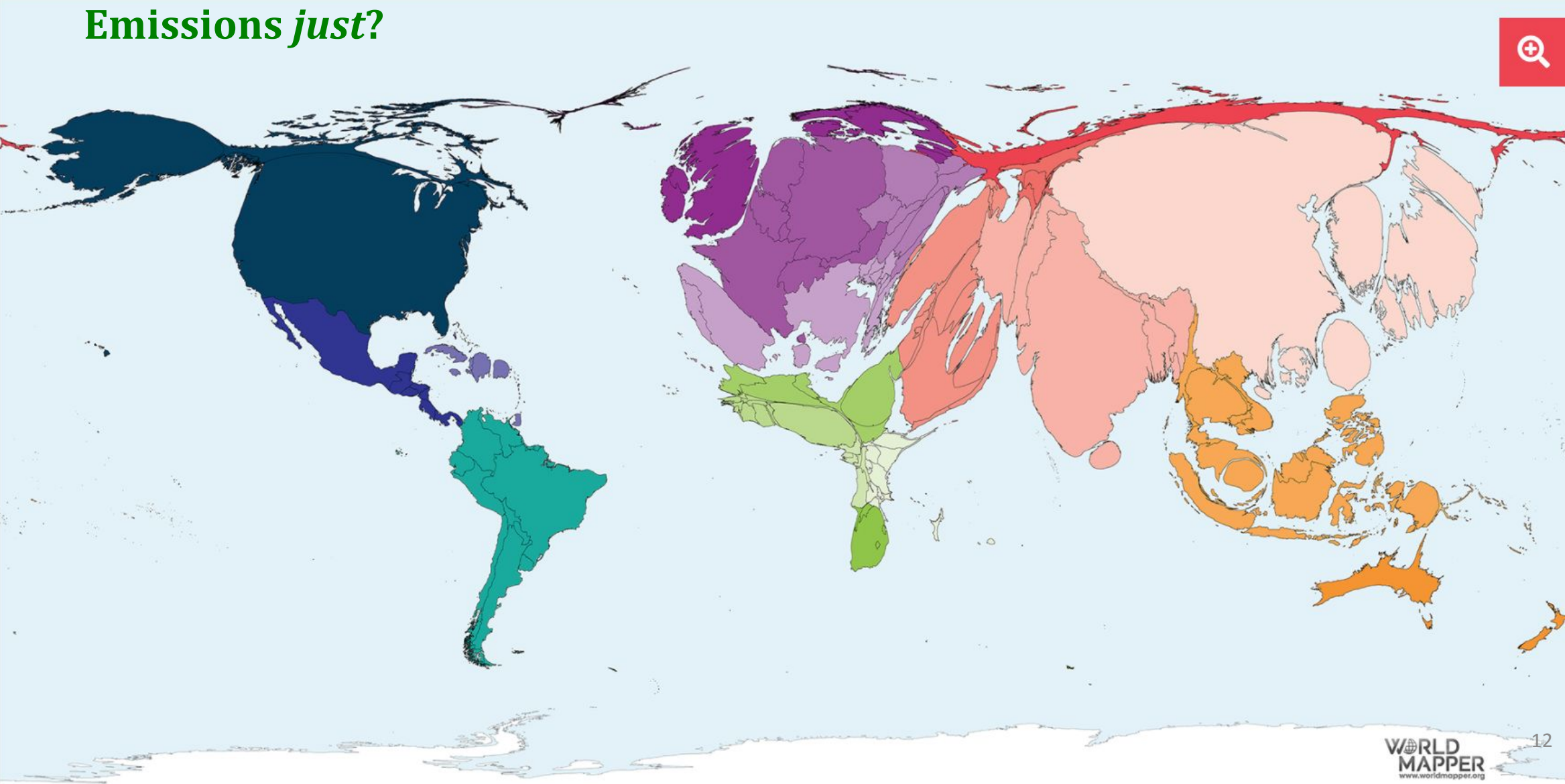
Population Year 2020

Are Mason's GHG Emissions *just*?



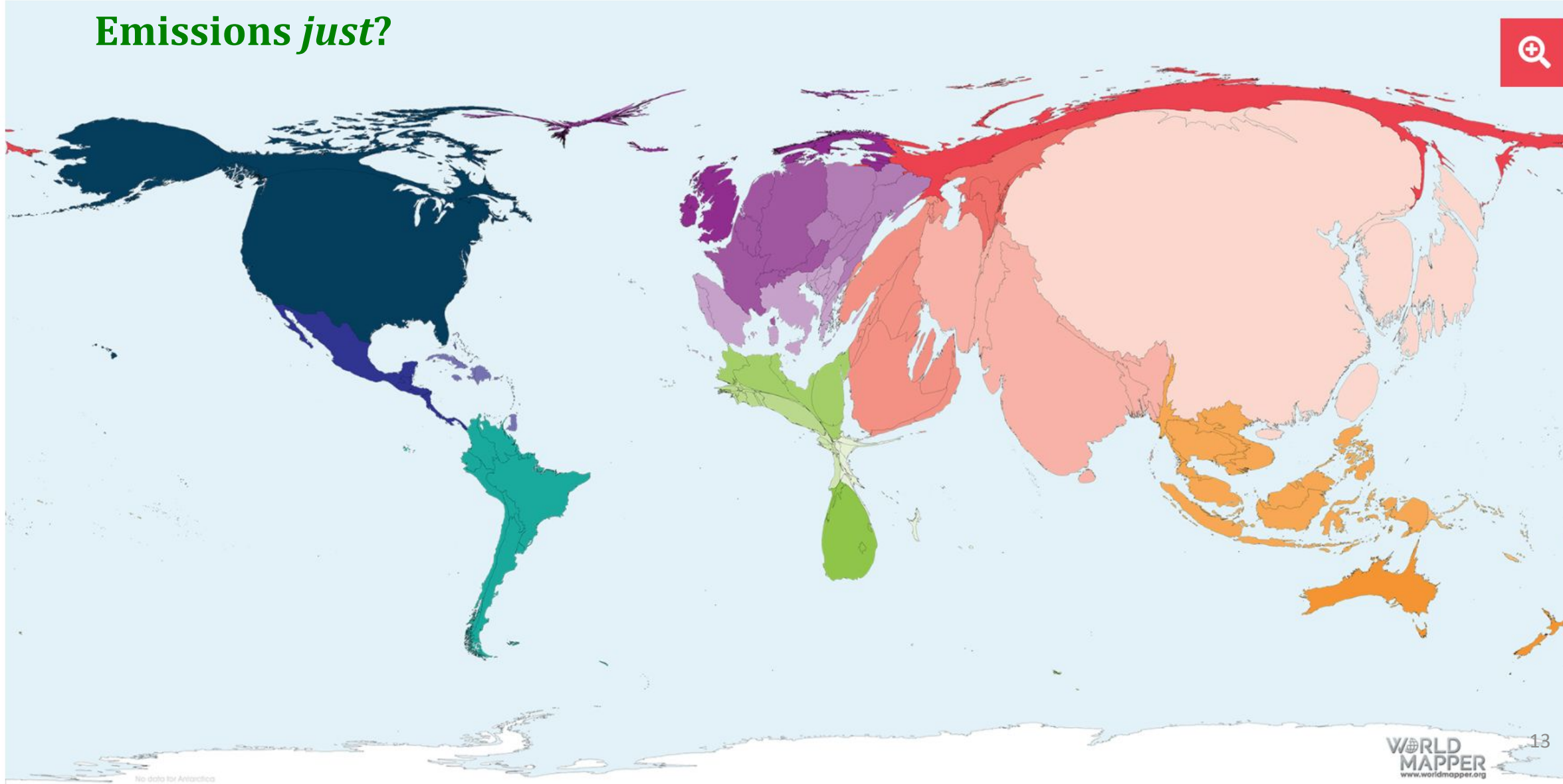
GDP Wealth 2018

Are Mason's GHG Emissions *just*?



CO₂ Emissions 2020

Are Mason's GHG Emissions *just*?

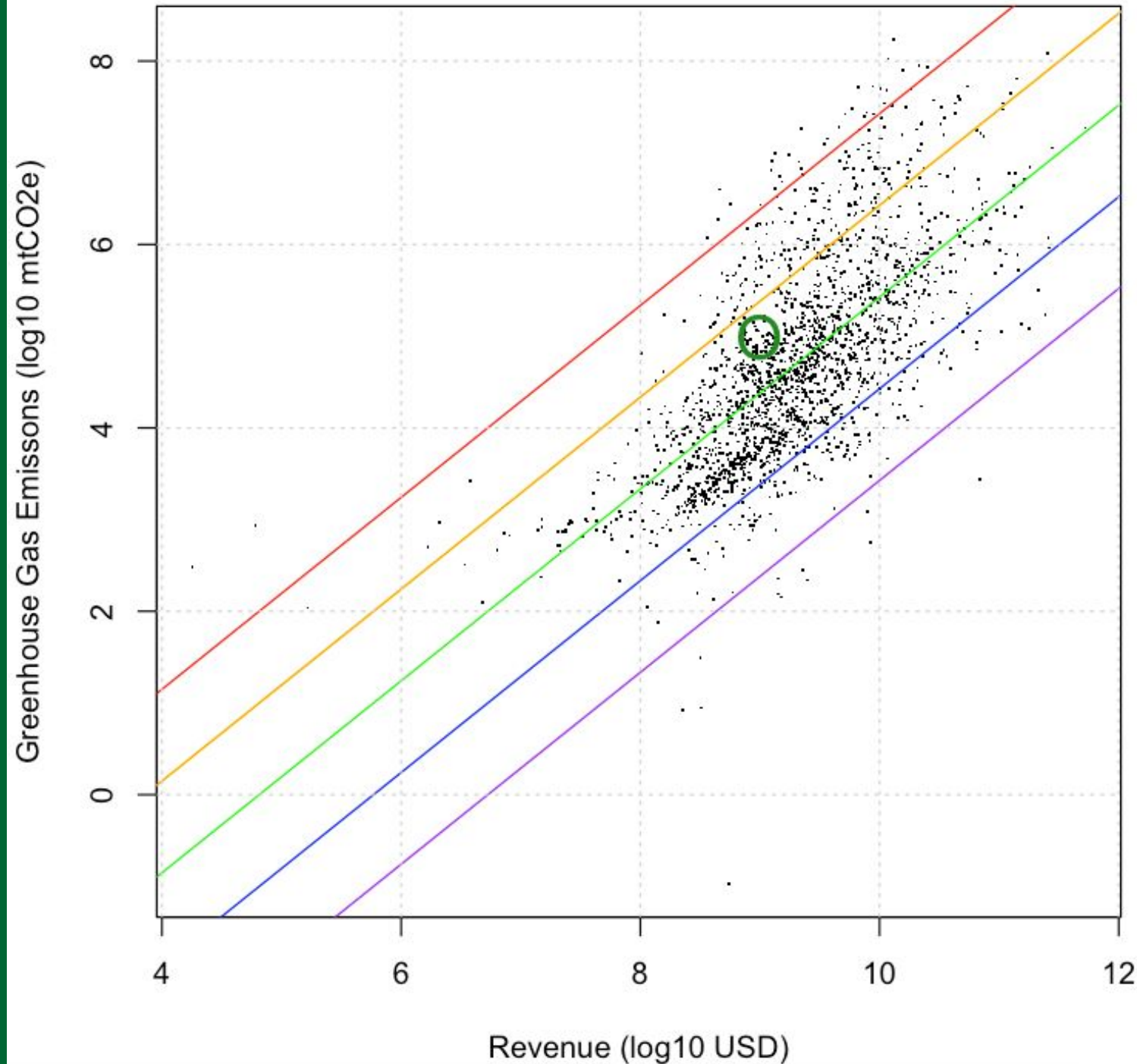


Are Mason's GHG Emissions *just*?

2019 Revenue vs. GHGs for 2,000+ largest market cap stocks in USA,

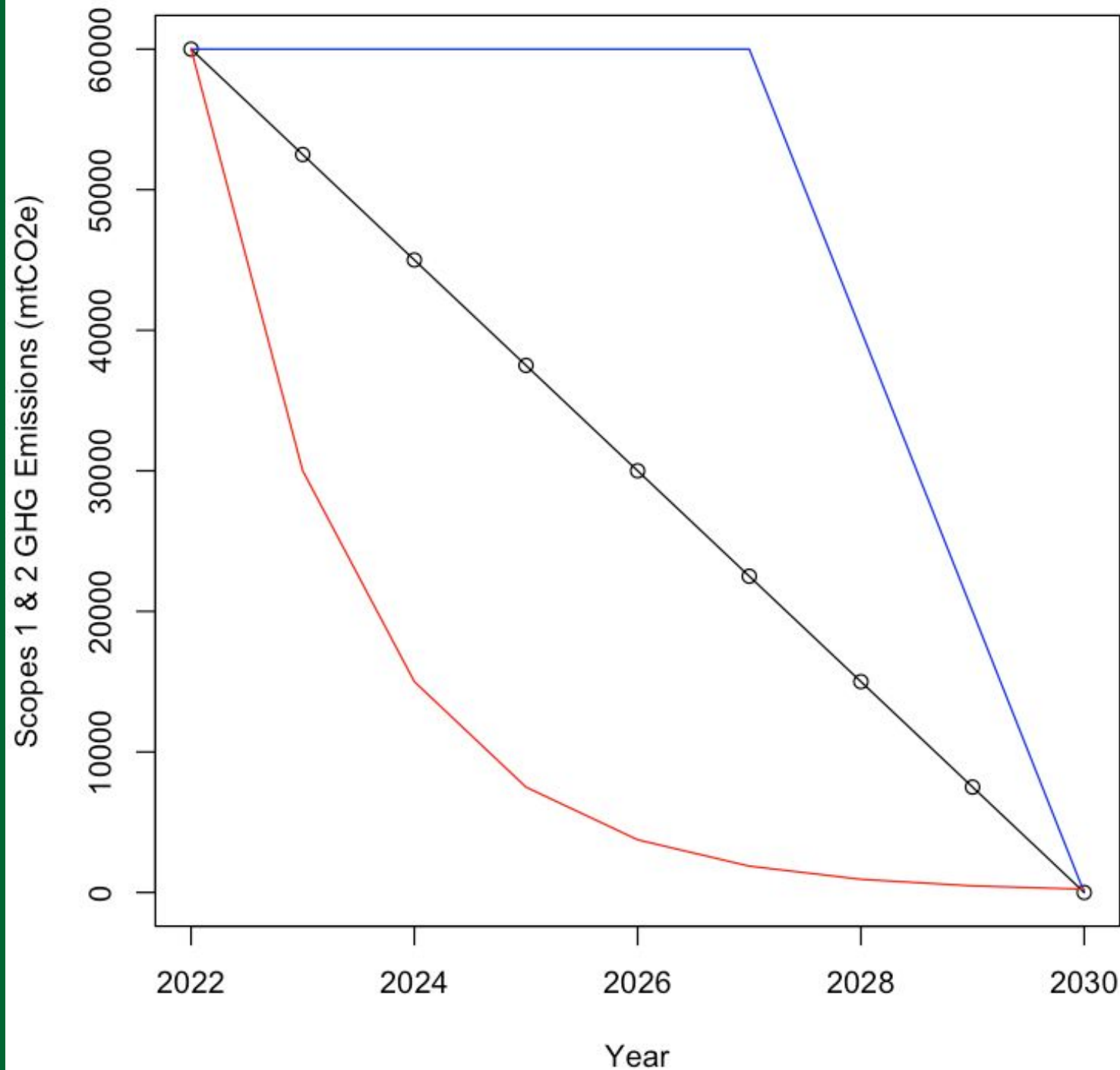
Mason as 0 .

Colored lines are orders of magnitude from linear fit (central green line)



Is our mitigation pathway *just*?

How we drawdown GHGs to 2030 net zero affects our cumulative impact on climate change...

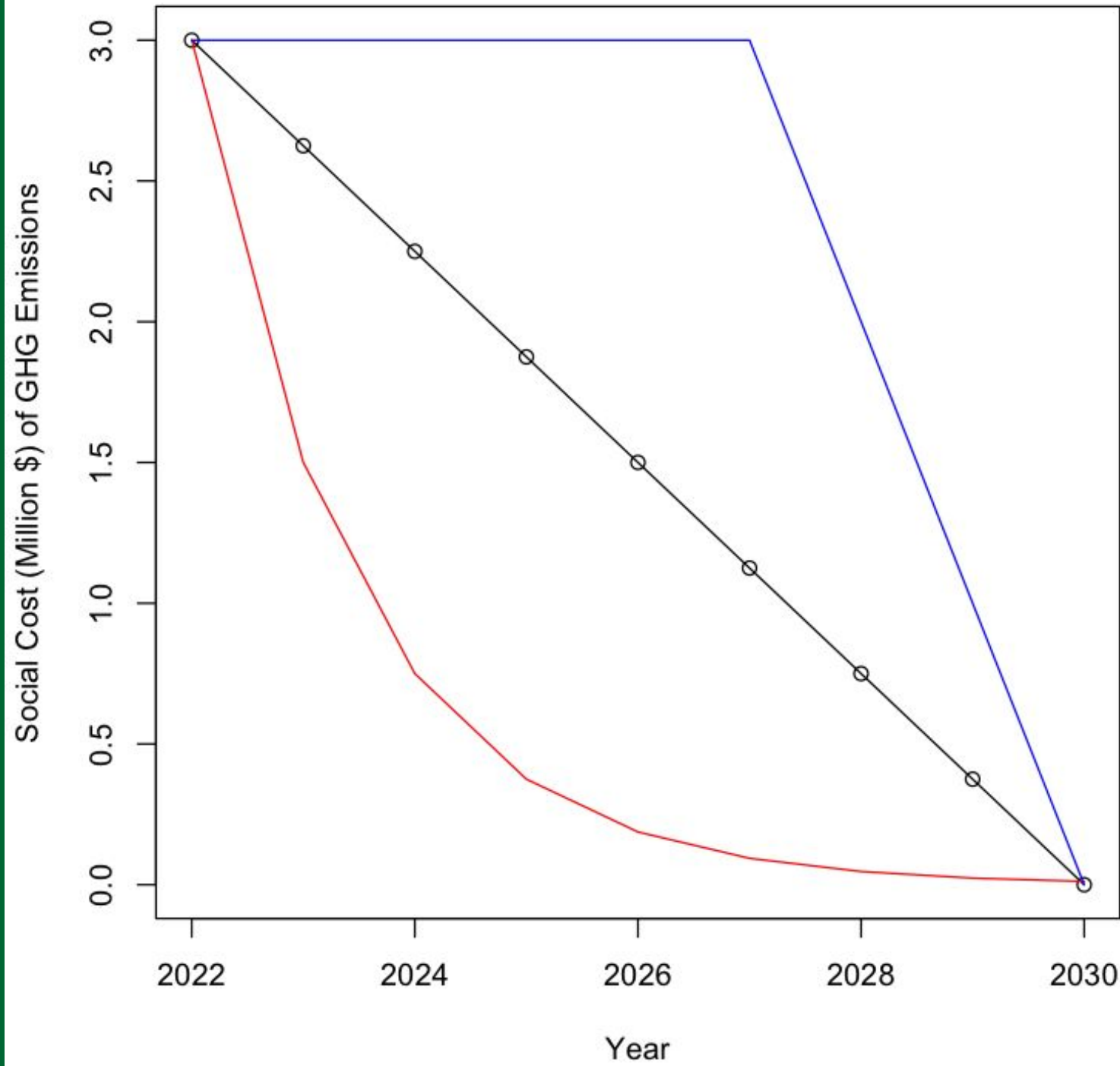


Is our mitigation pathway *just*?

How we drawdown GHGs to 2030 net zero affects our cumulative impact on climate change...

... and **social cost of GHGs** we emit.

Just for future generations?



Mason Climate Champions at
Fridays for Future Climate Rally
in Washington, DC (2019)



Center on people ... not just gases

| | | | |
|----------------------------|--------------------------|--------------------------|----------------------------|
| Burden/ Benefit | Climate Today | No Mitigation | Just Transition |
| Climate Today | | | |
| No Adaptation | | Stakeholder | |
| Just Transition | | | |

Center on people ... not just gases

| | | | |
|---|------------------------------|----------------------------------|--|
| Food In-/Security | Climate Today | No Mitigation | > Local food forests |
| Climate Today | 1/4-1/3 Food Insecure | ↘ harvests → ↗ \$ food → ↘ FS | ↗ Carbon in trees → ↘ climate change → ↗ harvests, ↘ food\$ |
| No Adaptation | ↘ FS → ↘ success | Mason Students | |
| Locally grown “real food” sold cheaply on campus | ↗ FS → ↗ student success | | ↗ local tree harvests → ↘ food \$ → ↗ FS → ↗ student success |



Mason Students' Climate Rally (2019)