Social Science for Industrial Decarbonization

Jeff D. Colgan
Brown University

Outline

- Context

- For the workshop: Big 2 questions

- For this panel: how can support for decarbonization be built?

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Context

Decarbonization as problem of:

1. Engineering
2. Economics
3. Politics

→ Many key barriers fall within social science

When developing a research agenda, *prioritization* of questions >> laundry list

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Big 2 questions

Speaking to the workshop as a whole, if I had to pick just two questions, my vote would be:

#1- For the US: how to make abundant, clean electricity available rapidly, as a foundation for all other climate solutions?
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- .

#2 - For the world: how can the Global North provide support and incentives to the Global South to accelerate decarbonization?

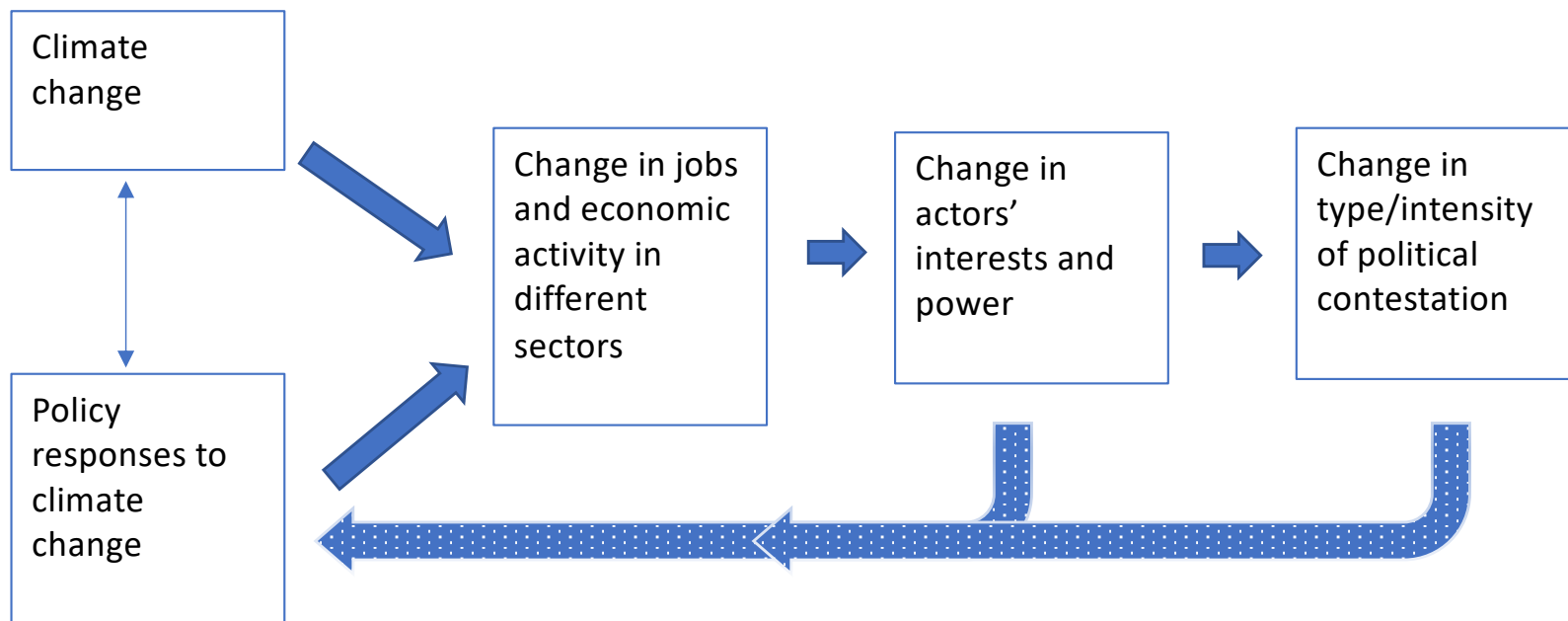*Jeff Colgan, Brown University*

Big 2 questions

Speaking to the workshop as a whole, my vote for the key questions are:

#1- For the US: how to make abundant, clean electricity available rapidly, as a foundation for all other climate solutions?

- Intuition: this is largely a social science question
- e.g., What explains variation in barriers to grid interconnection across different US states?
- What are the racial / income inequality dimensions of a reliable & clean electricity grid?
- How will utilities and private firms benefit or optimize from the climate stresses on the electrical grid?

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How can support for decarbonization be built?

Policy – politics feedback cycle:

Source: Adapted from Colgan et al. 2021, "Asset Revaluation and the Existential Politics of Climate Change"

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Key political economy questions

- How does today's policy affect future political support for decarbonization?
  - Under what conditions do *labor* interests support green policy?
  - *Who (which party)* gets credit for what?
  - Under what conditions can companies be held accountable for green pledges in public/investor statements?
  - How can policies be *sequenced* to build support for green economy?
  - How do effective institutions manage *tradeoffs* between environmental goals?

Conclusion

Funders: Focus on socio-political institutions, not just tech, as key sources of decarbonization success

Researchers: Prioritize the social science questions that support the biggest-climate-bang-for-buck

All: Political economy of clean electricity is the foundation for most climate solutions

Jeff Colgan, Brown University