

## Barriers to Climate Action

### **Human Cognition**

- Short-term thinking & focus on near-term needs (including failure to recognize/care about and prepare for future problems)
- Optimism bias
- Bystander Effect
- Inappropriate lack of fear (vs. COVID for example)
- Climate change is not caused by an enemy (and lack of other threat indicators)
- Lack of “systems thinking” in understanding problem and designing and implementing solutions
- Lack of imagination of what a better world looks like
- Politicization/Tribal identity (e.g., conservatives tend to be against climate action)
- Misunderstanding of uncertainty (“Uncertainty is not your friend”)
- Climate change is framed as an environmental issue (far away, affects others) vs. WW2-type problem
- Language framing: Climate change/crisis/emergency

### **Communications/Education**

- Almost no well-funded coordinated “green” information campaigns
- Ad-supported communications networks promoting disinformation ahead of information (Carl Bergstrom’s research)
- Failure of media to inform properly
- Lack of knowledge about climate change and clean solutions (policymakers, media, public)
- Lack of understanding about exponentials: Infinite growth on a finite planet
- Individuals don’t know what to do/feel powerless to change the system
- Few well-known spokespeople to deliver climate message, including lack of trusted “tribe” members

### **Economics/Misaligned Incentives**

- Wrong economic incentive systems (e.g., no price on carbon, subsidies for fossil fuels) - “Biggest market failure in history”
- Discounting of future damage vs. current costs
- Nature not valued in economic terms
- Desire/incentives for economic growth
- Tragedy of the Commons
- Poverty and economic instability preventing ability to focus on future problems

### **Political**

- Failure of political leadership (and wrong/short-term incentives for political leaders)
- Governments tied to fossil fuel industry and dependent on fossil fuel revenues (money buys influence)
- Focus on future action (“Net-Zero by 2050”) vs. current action (“Climate change is not an end-point problem.”)
- Individualism vs. collective action
- Climate impacts will disrupt society and government functioning while trying to deploy solutions (already started)
- Migration, water scarcity, famine, etc. has/will inflame international relations and political institutions

### **Inertia**

- Desire to maintain status quo (even though status quo is not one of the remaining options)
- Existing infrastructure (power plants, industrial plants, gas heating in homes, cars/trucks/planes/ships)
- Inertia of current fossil fuel, agriculture, and forestry industries

### **Interest of Few vs. Benefit of Many**

- Active disinformation campaigns (Merchants of Doubt, oil companies, Russia, Fox News)
- Wealthy and policymakers feel immune to climate impacts
- Hi-emitters in charge of response
- Climate denial morphing into “It’s too late” thinking
- Focus on individual energy use vs. dirty energy supply (“Climate change is your fault because you drive and fly.”)

### **Other**

- Lack of agreement or coordinated plan among “green” groups
- Concern that solutions will be unjust/not equitable
- Failure to consider worse case scenarios