



# Paths to Improvement

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# Climate Change is a Wicked Problem

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- Wicked problems are unstructured
  - They are complex and uncertain
  - Multiple, overlapping, inter-connected problems
  - Wicked problems are “relentless”
  - They won’t be solved once and for all
  - “...we can never solve a wicked problem, we can only do better or worse at trying manage it.”

Exploring Wicked Problems, Bentley & Toth, 2020



# Climate Justice

“...some nations have contributed far more to the problem of climate change than others. The United States wins the prize of all time greatest contributor. ... the largest emitters are mostly responsible for the losses. Importantly, the distribution of those losses is highly unequal.”

Cass Sunstein, Climate Justice, 2025

“My concern is with why, given that the relevant facts are known, effective action is so difficult, and indeed has so far eluded us. ... In my view, the global environmental tragedy is **most centrally an ethical failure**, and one that implicates our institutions, our moral and political theories, and ultimately ourselves, considered as moral agents.:

Steven Gardiner, A Perfect Moral Storm, 2011

# Climate Justice



- A group of students enrolled in an online class in international environmental law offered in the South Pacific Islands. The class is hard to teach because those islands are immediately threatened by climate change. They worked with Vanuatu, an island country, at the U.N. to get 134 countries to pass a resolutions asking the International Criminal of Justice to rule on two questions. Do countries have to protect the climate system from harm by Green House Gases? Should causing harm have remedies? 96 countries and 11 international organizations made statements. Big polluters – U.S., Russia, Saudi Arabia, China, Australia, Britain argued against. The court decided unanimously for the students country representatives.
- “...countries have a duty to prevent the environmental harm caused by emitting greenhouse gases,...” ICJ
- Recent COP events have also established the responsibility of heavy emitters of carbon to mitigate the harmful effects on poorer countries.

# Definition of ethics

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**“Ethics deals with things to be sought and things to be avoided, with ways of life and with the telos.” Epicurus**

**(“Telos” is the chief good, the aim, or the end of life.)**

Reider, Travis. Catastrophe Ethics: How to Choose Well in a World of Tough Choices Dutton, 2025

# Participatory Ethics

“It seems to me that the desire to be able to justify one’s actions ... is quite strong in most people.”

“...there is nothing like consensus about the correct moral theory despite thousands of years of investigation.”

“Poverty, famine, [climate change], and disease will not solved by me, ... And yet the problem feels like one I can and should address. So I feel both obligated and impotent, ...”

“Climate change is a catastrophic, acute threat. And our lives are utterly intertwined with it, since we contribute to it every day in multiple ways, and there is no longer any excuse for not know it. ... there’s just no good justification for refusing to change some of our behaviors.”

“...what we are really on the hook for, morally speaking, is being thoughtful in how we approach the ethics of participating in collective action.”

# More Participatory Ethics



- “...we need a way to account for the moral pressure we often feel, even when we don’t have a duty or obligation to ACT. And for that, we need to go back to the idea of a moral reason. ... One of my deepest commitments regarding moral philosophy is that we pay too little attention to moral reasons and focus far too much on duty and obligation.”
- “...the scalar nature of our participatory ethics: we can always be better and worse.”
- “...there is no singular right way to live in our world.”
- A “...meta-rule about participatory ethics: we all need to read, listen, and otherwise consume news, analysis, and other forms of information delivery. The moral responsibility to participate ethically in society entails a moral responsibility to be informed.”

# Fundamental Principle of Participatory Ethics

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**If a harm or injustice is created by the collective to which I am a member, I have an obligation to be part of the solution.**

**Caution: Don't fall into the trap of "single-action bias."**



# Participatory Ethics

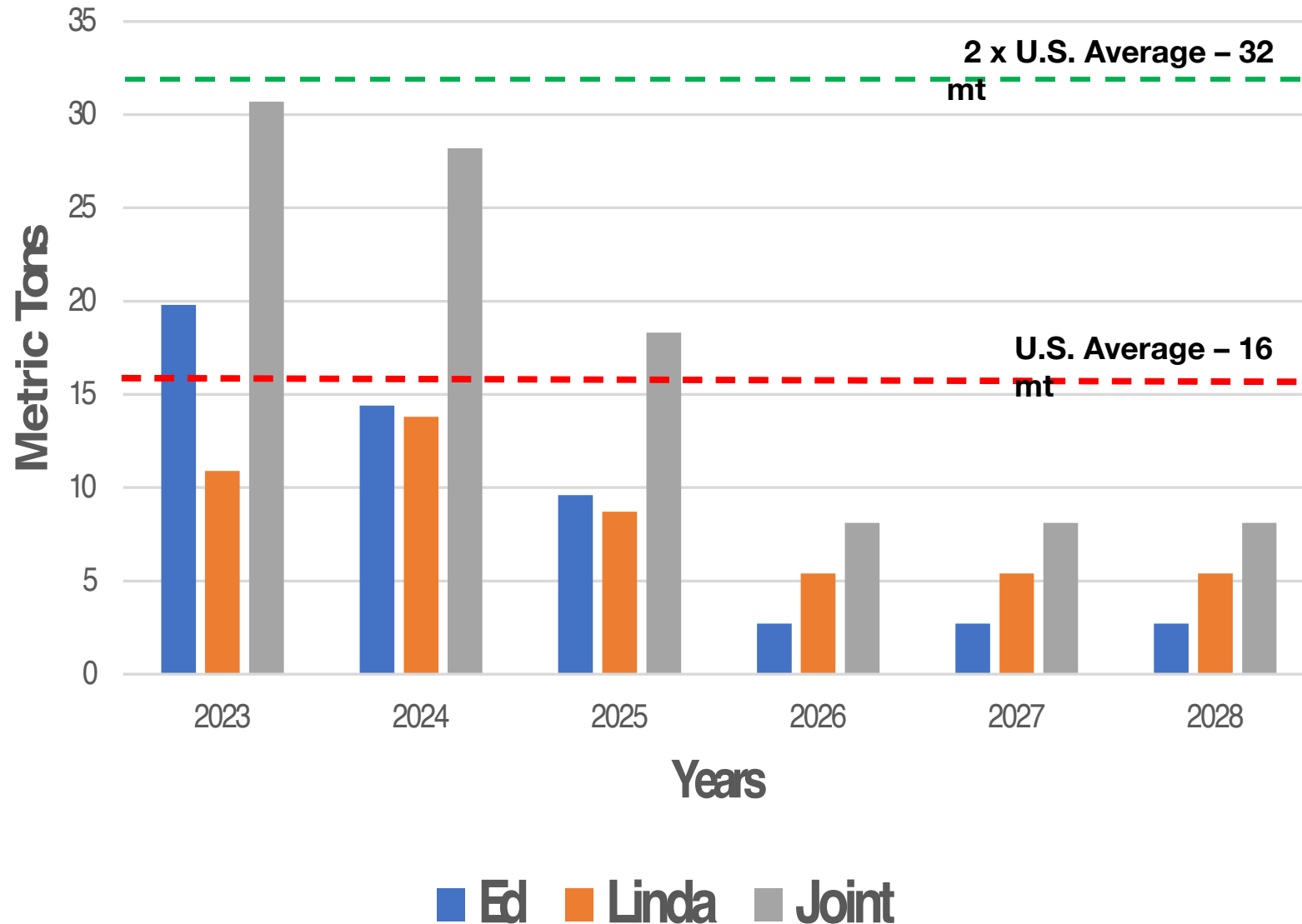
## A Personal Path to Improvement

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- Changing my carbon footprint.
- Universal energy access
- My personal climate justice plan.
- Eliminating Food Waste



# Calculation of Personal CO2e Footprint



## Notes:

**2023 Ed: 8.5 metric tons for CO2e embedded in EV purchase.**

**2023 Ed: 6.9 mt for 12,000 miles of diesel RV driving.**

**2024 & 2025 Ed: 6 mt for flying each year.**

**2023 to 2025 Linda: 5.5 mt per year flying.**

**2024 Linda: 3.4 mt for CO2e embedded in solar panel purchase.**

**All years Joint: 1.7 mt each for embedded CO2e in consumed food.**

# Sample from Calculation Handout

Key numbers for calculating your carbon footprint							
Question: What is the CO2e weight of burning a gallon of ...." (phone)							
1 gal of gasoline	20 lbs						
1 gal of diesel	22.38 lbs						
1 gal of propane LNG	12.65 lbs						
1 gal of butane	14.76 lbs						
Question: How much CO2e is produced by 1kg of food waste in a landfill? (Grok-4)							
1 kg of food waste	1.9 to 2.5 kg of food waste						
Average beef cow	5-10 metric tons per year						
Avg food waste: US	0.5-0.7 metric tons per year						
American footprint	16 metric tons per year with food waste being 3%-4% of that						
U.S. has one of the highest per capita food waste rates in the world. (35 -40%)							
Average U.S. citizen consumes about 2000 lbs of food a year.							

- 1. Too long thinking of money, power, and fame.**
- 2. Think instead of shared humanity and sustainability of the earth.;**

**People with no electricity paying 40 cents a day for kerosene to get light.**

**Backed an entrepreneur who marketed solar lights for \$7. Sold 100 M.**

**Kept 7 Million tons of CO2 out of air.**

**Per their customers, added cell phone charging, radio, and fans.**

**“Listen to Voices Unheard”**



**Jacqueline  
Novogratz  
Moral Revolution**

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# **Jacqueline Novogratz**

## **Manifesto for a Moral Revolution**

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**“...customers in house after house told us how their lives had changed now that they were able to switch on light at night, read, talk to their families.”**

**“Markets, too, can be a powerful listening device.”**

**“Energy poverty, as the gap in global electricity is, called, is not just a market failure. It is a moral failure.”**

**“We miss so much by assuming we have the answers. Instead, learn to listen with your whole body. Listen with your ears, your eyes, all your senses. Listen not to convince or to convert, but to change yourself, spark your moral imagination, ... When we fail to listen to those the world excludes, we lose the possibility of solving problems that matter most to all of us.”**

# **Bill McKibbon**

## **Here Comes the Sun**

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- **The Trinity for households: electric car or bike, heat pump, and induction cooking. In US, 42% of energy we use is heating water, cooking, heating, drying clothes, and driving.**
- **Now ‘a dollar, yuan, or euro spent on fossil fuels delivers substantially less useful energy to the end user than the same amount spent on renewable energy. ... fossil fuels will be replaced by renewables. Redo the Energy base of the economy.**
- **Sun shines everywhere – 940 million without electricity and 3 billion who don’t have enough. 80% of countries do not have fossil fuels of their own. “Access to electricity determines fundamental aspects of individual’s lives, ...”**

## **More from McKibbin**

**“If you want to end poverty,” Rajiv Shah, development expert, “focus on electricity and nothing else.”**

- International Monetary Fund (2023): “...the world was giving coal and oil and gas \$7 trillion a year, above all by letting them use the atmosphere as an open sewer for free.”**
- Subsidize clean energy, particularly in poorer countries.**
- Reduce regulations – green energy has demonstrated its safety.**
- Rework our use of the grid.**
- Stop blocking and voting against green energy projects.**
- We already have the manufacturing capacity, China primarily, to make the solar panels and turbines needed to make the transition at the rate scientists have said we need to pursue.**

# Peter Singer

## The Life You Can Save

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### The ethical model

1. Research the charities to see how they distribute money.
2. Rigorously research the results of the charities to find their actual effectiveness.
3. Recommend the top charities to people donating.

### Effective Giving Websites

- [www.givewell.org](http://www.givewell.org)
- [www.givedirectly.org](http://www.givedirectly.org)
- [www.givinggreen.earth](http://www.givinggreen.earth)
- [www.founderspledge.com/funds/climate](http://www.founderspledge.com/funds/climate)
- [www.funds.effectivealtruism.org](http://www.funds.effectivealtruism.org)
- [www.sogive.org](http://www.sogive.org)



# Grand Finale



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- **Contribute to the WCA carbon offset fund. Pay the full cost of your consumer behavior.**
  - **Practice Followership, Barbara Kellerman. “...followers are more important to leaders than leaders are to followers.” “...the single strongest weapon of the powerless against the powerful is the power of numbers.”**
  - **Choose the “Path to Improvement” that fits with your goals and situation and act now.**
  - **Join with me in applauding the other members of WCA. They are wonderful practitioners of “participatory ethics” and have been for years. They always seem to be ready to do more.**

