

# Framing Multisolving Innovations to Counter Political Resistance to Carbon Emission Reductions

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October 8, 2021

Superfund Research Program Webinar Series: Risk Communication Strategies to Reduce  
Exposures and Improve Health

Session II: Combatting Misinformation and Mistrust When Communicating Health Risks

# This afternoon

- The problem, and a solution
- Definitions
- Example multisolving innovations
- Evidence about message framing
- Target adopters
- Novelty

## The problem is political polarization and the partisan associations of “climate change”

- While many U.S. jurisdictions have taken actions to reduce carbon emissions, others have not
- The diffusion of adaptation innovations is likely outpacing the diffusion of mitigation innovations
- Actions to reduce carbon emissions are responses to climate change
  - The majority of counties in the U.S. voted conservative in 2016 and 2020
  - Mere mention of “climate change” in these counties can lead to mistrust, skepticism, and indifference

## In addition...

- The information environment is crowded, with sophisticated counter-messages and considerable misinformation

With some innovations certain benefits can be emphasized and other benefits ignored

- This is akin to avoiding negative reactions rather than countering them
- These are multisolving or “co-benefit” innovations

# What is a multisolving innovation?

- An *innovation* is a practice, program, policy or technology that is perceived to be new by a potential adopter
- *Multisolving* refers to innovations that promise benefits of more than one type



Let's look at a few



MV TECHNOLOGIES



# Biofuel Digesters

- What it is
  - Technologies adopted by farmers and municipalities to convert manure, agricultural waste, and food waste into natural gas or electricity
- The benefits
  - Reduced waste, ready-to-use fertilizer
  - Clean energy
- Where it has been implemented
  - More than 2,500 U.S. locations

Ultra low  
emission  
ZONE



At all  
times

Congestion  
charging  
ZONE



Mon - Fri  
7 am - 6 pm

1/2 mile ahead

# Low and No Emission Zones



- What it is
  - City policies to either restrict or charge fees for vehicles with high emissions to enter high density areas
- The benefits
  - Improved respiratory health and physical activity, reduced social isolation
  - Reduced carbon emissions
- Where it has been implemented
  - Many Europe countries, U.S. cities and towns



SOUL NOLA  
PARISH OFFICE  
FUN TEAM

SOUL NOLA  
FUN TEAM

SOUL NOLA  
FUN TEAM

SOUL NOLA  
FUN TEAM

# Greening of Urban Environments

- What it is
  - Community tree planting
- The benefits
  - Reduced temperatures, shade, community engagement
  - Carbon absorption
- Where it has been implemented
  - U.S. cities



SCHOOL NO 77

TEMPORARY HOME OF P.S. 18  
Dr. ANTONIA PANTOJA  
COMMUNITY SCHOOL  
OF  
ACADEMIC

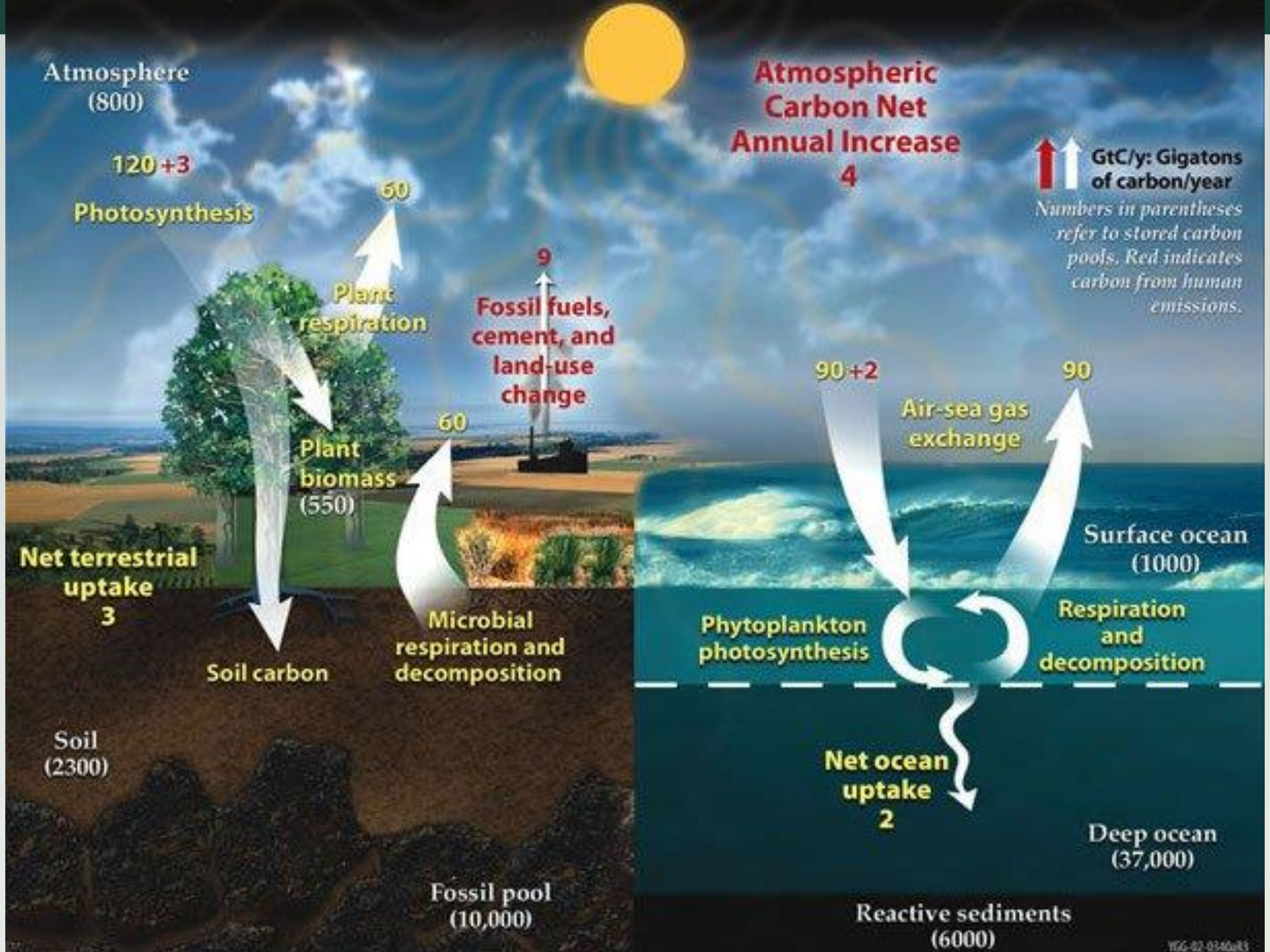
PROAK HILL  
BUILDING COMPANY



# Green Affordable Housing



- What it is
  - Community engagement of low-income residents and others to plan and build affordable housing that incorporates sustainable features.
- The benefits
  - Workforce skill development and job creation, affordable housing
  - Reduced energy use
- Where it has been implemented
  - U.S. cities



Atmosphere  
(800)

**Atmospheric  
Carbon Net  
Annual Increase**  
4

↑↑ GtC/y: Gigatons  
of carbon/year

*Numbers in parentheses  
refer to stored carbon  
pools. Red indicates  
carbon from human  
emissions.*

120+3  
**Photosynthesis**

60

Plant  
respiration

9

**Fossil fuels,  
cement, and  
land-use  
change**

Plant  
biomass  
(550)

60

Microbial  
respiration and  
decomposition

90+2

Air-sea gas  
exchange

90

Surface ocean  
(1000)

Phytoplankton  
photosynthesis

Respiration  
and  
decomposition

**Net terrestrial  
uptake**  
3

Soil carbon

**Net ocean  
uptake**  
2

Soil  
(2300)

Deep ocean  
(37,000)

Fossil pool  
(10,000)

Reactive sediments  
(6000)



# Regenerative Farming

- What it is
  - Carbon is sequestered in soil through no-till and biodiversity practices
- The benefits
  - Increased food production, richer soil
  - Carbon capture, reduced water use
- Where it has been implemented
  - Native American lands, hundreds of “carbon farms”

# Communicating multisolving innovations

- *Framing* is the communication of certain meanings about an issue, event or object
- A *multisolving framing strategy* is a decision to use certain frames and not others so as not to elicit negative predispositions

# Evidence about framing

- Different frames produce different results in terms of attention, knowledge, attitudes, and behavior
- People respond positively to frames that positively reflect their predispositions
- People with dismissive attitudes and beliefs about climate change, and those who identify as politically conservative, respond positively to community health frames
- Health is an especially promising way to frame messages about climate change

# Target adopters

- A multisolving framing strategy would be used to communicate innovations to representatives of communities that are negatively predisposed to consider carbon mitigation innovations
  - Representatives rather than individuals in the general public are targeted because a number of multisolving innovations require *collective* adoption decisions

# Novelty

- Is this new?
  - Nothing new about strategic use of message frames
- What's new is avoiding mention of some benefits entirely
  - A form of *choice architecture*
  - Nudging the negatively predisposed adopter to consider a socially beneficial way forward

Thank you

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Dearing JW, Lapinski M. Multisolving innovations for climate and health: Message framing to achieve broad public support. *Health Affairs* 2020;39:12.