Climate on Tap

Project Drawdown

Solutions to the Climate Crisis

Facilitator:

Laura Tucker

Sponsored by:

finnriver farm • cidery

Jefferson County Public Health

Local 2020

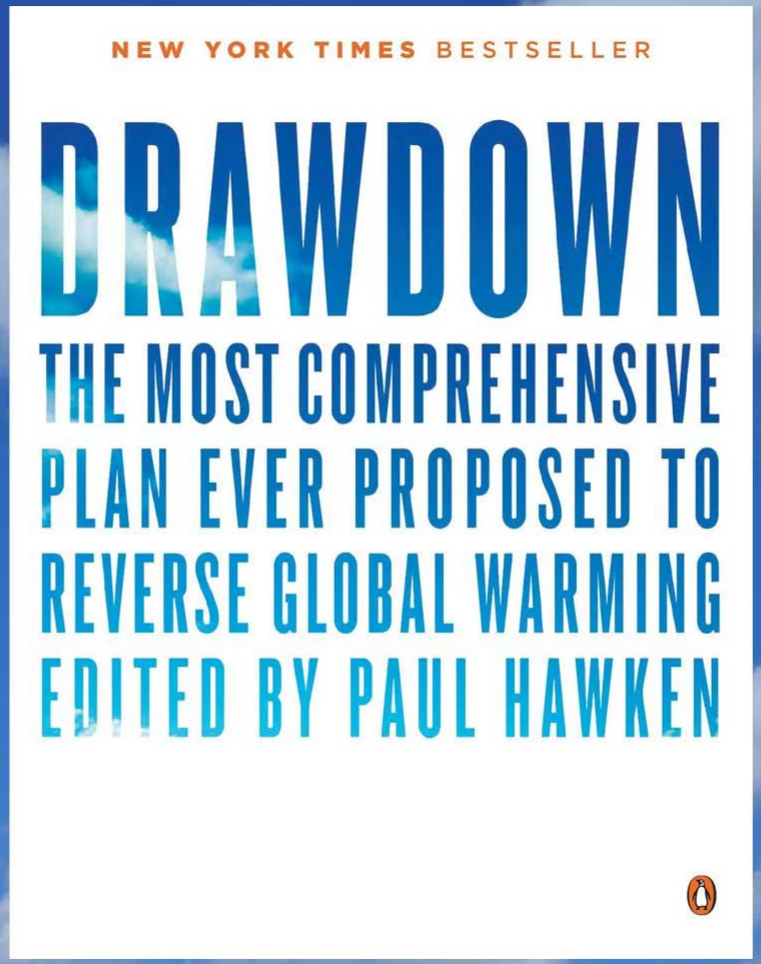
What comes to mind when you think of climate change solutions?

Take a few minutes to ponder this, then share your thoughts with those at your table or with the person next to you.

Drawdown is the point in time **when the concentration of greenhouse gases** in the Earth's atmosphere **begins to decline on a year-to-year basis**. Project Drawdown has developed realistic, solution-specific models, technical assessments, and policy memos projecting the financial and climate impacts of existing solutions **deployed at scale over the next thirty years**.

Project Drawdown is a nonprofit organization and coalition of scholars, scientists, entrepreneurs, and advocates from across the globe that is mapping, measuring, modeling, and communicating about a collective array of substantive solutions to global warming, with the goal of reaching drawdown.

https://www.drawdown.org/



Drawdown Solutions by Sector

Our Food

1. Throw away less food **495**
2. Eat a plant heavy diet **464**
3. Cook over clean stoves **111**
4. Compost your waste **16**

How We Move People and Goods

1. Drive an electric car **75.7**
2. Ship goods more efficiently **55.2**
3. Fly less – & on fuel-saving planes **35.4**
4. Invest in high-speed trains **10.7**

Our Homes and Cities

1. Switch to LED bulbs **58.4**
2. Design more walkable cities **20.5**
3. Use smart thermostats **18.4**
4. Install green roofs **5.4**

How We Use Our Land

1. Protect & restore tropical forests **429**
2. Plant more bamboo **50.6**
3. Return land to indigenous people **43.4**
4. Preserve coastal wetlands **5.4**

Electricity Use

1. Harness wind energy on land **593**
2. Build solar farm **259**
3. Invest in nuclear power **113**
4. Capture the power of waves **64.5**

Drawdown Solutions by Sector

Materials and Waste Management

1. Clean up chemicals in our refrigerators and air conditioners **629**
2. Build with “greener” cement compounds **46.9**
3. Use water more efficiently **32.3**
4. Increase household recycling **19.4**

Empowering Women

1. Educate girls **361**
2. Increase access to family planning **361**
3. Close the gender gap in small-scale farming **14.4**

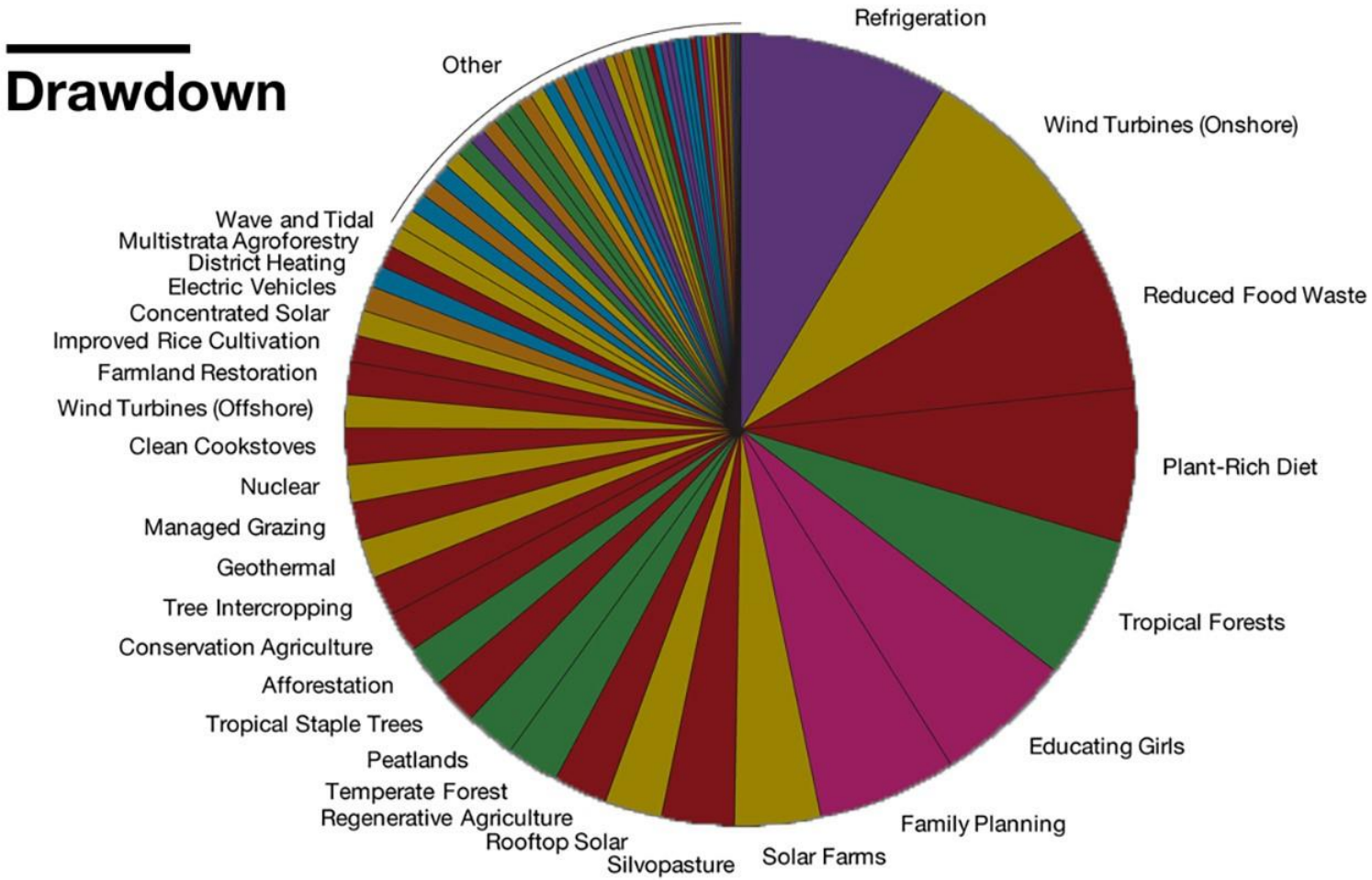
The Top 5!!

1. Manage refrigeration chemicals **629**
2. Install onshore wind turbines **593**
3. Cut down on food waste **495**
4. Eat more plants **464**
5. Restore our tropical forests **429**

Reimagining Carbon

Paul Hawken Project Drawdown

Opportunities in Breakthrough (Highlights)



The 100 solutions by order of their ability to draw CO_2 from out atmosphere


DRAWDOWN
email sign up
donate
100 SOLUTIONS TO
REVERSE GLOBAL WARMING
View the solutions
Improved Rice Cultivation

ELECTRICITY GENERATION

Biomass
Cogeneration
Concentrated Solar
Energy Storage (Distributed)
Energy Storage (Utilities)
Geothermal
Grid Flexibility
In-Stream Hydro
Methane Digesters (Large)
Methane Digesters (Small)
Micro Wind
Microgrids
Nuclear
Rooftop Solar
Solar Farms
Solar Water
Waste-to-Energy
Wave and Tidal
Wind Turbines (Offshore)
Wind Turbines (Onshore)

FOOD

Biochar
Clean Cookstoves
Composting
Conservation Agriculture
Farmland Irrigation
Farmland Restoration
Improved Rice Cultivation
Managed Grazing
Multistrata Agroforestry
Nutrient Management
Plant-Rich Diet
Reduced Food Waste
Regenerative Agriculture
Silvopasture
System of Rice Intensification
Tree Intercropping
Tropical Staple Trees

WOMEN AND GIRLS

Educating Girls
Family Planning
Women Smallholders

BUILDINGS AND CITIES

Bike Infrastructure
Building Automation
District Heating
Green Roofs
Heat Pumps
Insulation
Landfill Methane
LED Lighting (Commercial)
LED Lighting (Household)
Net Zero Buildings
Retrofitting
Smart Glass
Smart Thermostats
Walkable Cities
Water Distribution

LAND USE

Afforestation
Bamboo
Coastal Wetlands
Forest Protection
Indigenous Peoples' Land Management
Peatlands
Perennial Biomass
Temperate Forests
Tropical Forests

TRANSPORT

Airplanes
Cars
Electric Bikes
Electric Vehicles
High-speed Rail
Mass Transit
Ridesharing
Ships
Telepresence
Trains
Trucks

MATERIALS

Alternative Cement
Bioplastic
Household Recycling
Industrial Recycling
Recycled Paper
Refrigerant Management
Water Saving - Home

Featured Solutions

COMING ATTRACTIONS

MARINE PERMACULTURE

Marine permaculture utilizes floating, latticed structures designed to grow rich kelp forests and foster marine life. It could sequester billions of tons of carbon dioxide.

WOMEN AND GIRLS

WOMEN SMALLHOLDERS

If women smallholders receive equal farming resources and land rights, their yields will rise by 20 to 30 percent, avoiding emissions from deforestation.

RANKING BY 2050 #62

MATERIALS

REFRIGERANT MANAGEMENT

The primary chemical refrigerant, HFCs, is a potent greenhouse gas. Emissions are avoided by managing leaks and disposal and by phasing out the use of HFCs.

RANKING BY 2050 #1

BROWSE ALL SOLUTIONS

Solutions by Rank

Rank	Solution	Sector	TOTAL ATMOSPHERIC CO2-EQ REDUCTION (GT)	NET COST (BILLIONS US $)	SAVINGS (BILLIONS US $)
1	Refrigerant Management	Materials	89.74		
2	Wind Turbines (Onshore)	Electricity Generation		$1,225.37	$7,425.00
3	Reduced Food Waste	Food	70.53		
4	Plant-Rich Diet	Food	66.11	N/A	N/A
5	Tropical Forests	Land Use	61.23	N/A	N/A
6	Educating Girls	Women and Girls	51.48	N/A	N/A
7	Family Planning	Women and Girls	51.48	N/A	N/A
8	Solar Farms	Electricity Generation	36.90	$-80.60	$5,023.84
9	Silvopasture	Food	31.19	$41.59	$699.37
10	Rooftop Solar	Electricity Generation	24.60	$453.14	$3,457.63

SEE ALL SOLUTIONS BY RANK

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11	Regenerative Agriculture	Food	23.15	$57.22	$1,928.10
12	Temperate Forests	Land Use	22.61	N/A	N/A
13	Peatlands	Land Use	21.57	N/A	N/A
14	Tropical Staple Trees	Food	20.19	$120.07	$626.97
15	Afforestation	Land Use	18.06	$29.44	$392.33
16	Conservation Agriculture	Food	17.35	$37.53	$2,119.07
17	Tree Intercropping	Food	17.20	$146.99	$22.10
18	Geothermal	Electricity Generation	16.60	$-155.48	$1,024.34
19	Managed Grazing	Food	16.34	$50.48	$735.27
20	Nuclear	Electricity Generation	16.09	$0.88	$1,713.40
21	Clean Cookstoves	Food	15.81	$72.16	$166.28
22	Wind Turbines (Offshore)	Electricity Generation	14.10	$545.30	$762.50

You get a new #1!

1. Wind Energy **Electricity Generation** **98.7** **$1,770.67** **$8,187.50**

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You get a new #1!

1. Empowering Women & Girls	**Women and Girls**	**102.96**			
2. Wind Energy	**Electricity Generation**	**98.7**	**$1,770.67**	**$8,187.50**	

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Solutions by Sector

CHOOSE A SECTOR:

Electricity Generation **Food** **Women and Girls** **Buildings and Cities** **Land Use** **Transport** **Materials** **Coming Attractions** Show All

LAND USE

AFFORESTATION

Afforestation—creating forests where there were none before—creates a carbon sink, drawing in and holding on to carbon and distributing it into the soil.

TRANSPORT

AIRPLANES

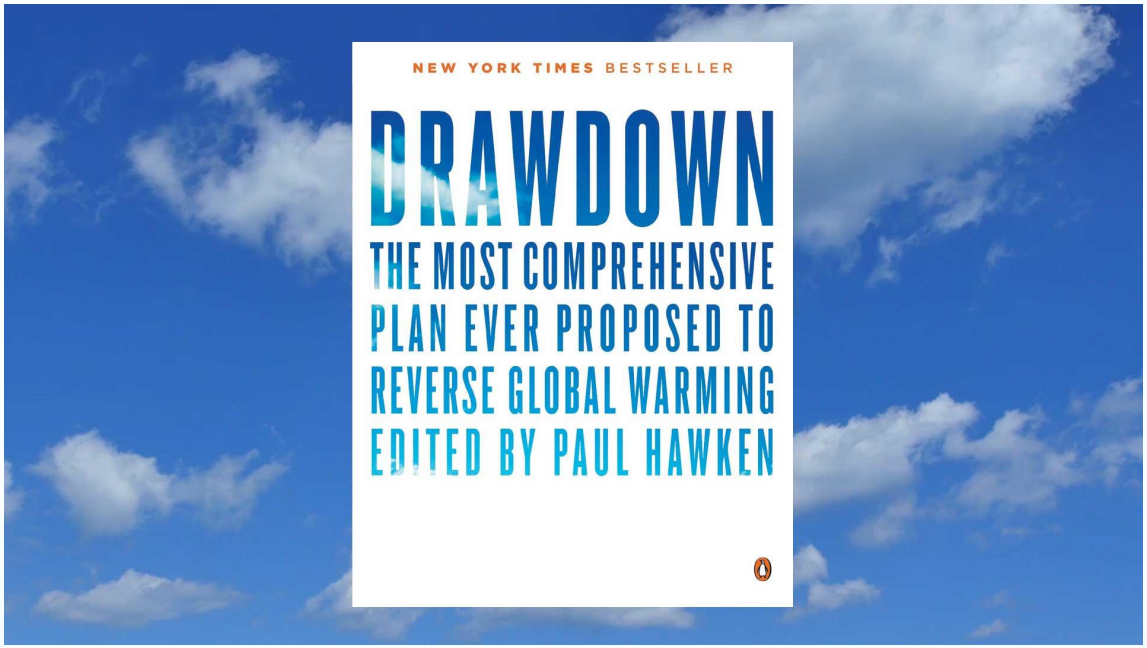
The airline industry produces at minimum 2.5 percent of emissions, and it is growing. Fuel efficiency measures are on the rise to reduce that impact.

MATERIALS

ALTERNATIVE CEMENT

Cement, a vital material for infrastructure, generates 5 to 6 percent of annual emissions. The key strategy to reduce them is to change its composition.

Look over the 100 solutions from Project Drawdown



At your table, decide which solutions can be done here in Jefferson County. Jot down your reasoning so you can share your thoughts with the group.

Carbon Footprint Calculator

https://coolclimate.berkeley.edu/calculators/household/ui.php

Climate on Tap

Thank you for coming!
Questions?

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Jefferson County Public Health

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