

Electricity



Wind Turbines (#2) (On and Offshore)

Proliferation of turbines, dropping costs and heightened performance can supply the world with clean power. Wind farms are at the forefront of addressing global warming.



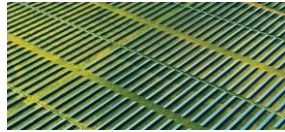
Rooftop Solar (#10)

As cost falls, economies of scale in manufacturing and advances in phototechnology make rooftop solar available worldwide.



Energy Storage

Vital to reduce emissions from polluting "peaker" plants and shift to variable renewables.



Solar Farms (#8)

Tapping the sun's unlimited clean and free fuel using large-scale arrays of hundreds, thousands, or millions of photovoltaic panels.

Food and Farming



Reduced Food Waste (#3)

Uneaten food squanders resources and generates 8% of GHG emissions. We can greatly reduce waste as food moves from farm to fork.



Plant-Rich Diet (#4)

Meat-centric diets come with a steep climate price tag: 1/5 of global GHG emissions. Plant-rich diets dramatically reduce emissions and chronic disease.



Silvopasture (#9)

Integrating trees and pasture into a single system for raising livestock sequesters carbon while improving animal health and productivity.



Regenerative Agriculture (#11)

Carbon-rich soil increases organic matter, enhances and sustains soil health, sequesters carbon, and improves productivity.

CLIMATE SOLUTIONS

Building and Cities



Green Roofs

Use soil and vegetation as living insulation and reflect solar energy. Both reduce energy use for heating and cooling.



Insulation

One of the most cost-effective ways to improve energy efficiency, both in new construction and retrofitting older buildings.



Net Zero Buildings

With zero net energy consumption, net zero buildings produce as much energy, through onsite renewables, as they use in a year.



Walkable Cities

Prioritize two feet over four wheels through planning and design. Emissions decrease with less driving and more walking.

Transportation



Mass Transit

Riding a streetcar, bus, or subway averts greenhouse gases, relieves traffic congestion and reduces air pollution.



High Speed Rail

One of the fastest way to travel between 100 to 700 miles, high speed rail can reduce emissions up to 90%.



Electric Vehicles

If powered by solar energy, carbon dioxide emissions from EVs drop by 95% compared to gas-powered cars.



Electric Bikes

The most environmentally sound means of motor transport in the world today.

Forestry and Land Use



Indigenous People's Land Management

Growing acreage under secure indigenous tenure can increase carbon stocks and reduce greenhouse gas emissions.



Tropical Forests (#5)

Have suffered extensive clearing, fragmentation, degradation and depletion of biodiversity. Restoring them may sequester as much as six gigatons of carbon dioxide per year.



Coastal Wetlands

Salt marshes, mangroves and sea grasses provide vital habitat, flood protection and water filtration, and sequester huge amounts of carbon.



Afforestation/ Reforestation

Creating forests where there were none and restoring those that were depleted draws carbon in and distributes it into the soil.

Coming Attractions



Ocean Farming

Small-scale farms can provide food and biofuel, while oysters filter nitrogen and seaweed sequesters CO₂.



Marine Permaculture

Floating, latticed structures grow rich kelp forests and foster marine life, while sequestering billions of tons of carbon dioxide.



Living Buildings

Benefiting both people and the planet, living buildings produce more energy than they use.



Telepresence

Enabling people who are geographically separated to interact, it reduces emissions by reducing travel.

Women and Girls



Family Planning (#7)

Securing women's right to voluntary, high-quality family planning dramatically improves the health and well-being of women and their children. Smaller families create less emissions.



Educating Girls (#6)

Lays a foundation for vibrant lives for girls and women, their families and their communities. It also avoids emissions by curbing population growth.

Materials



Refrigerant Management (#1)

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



Industrial Recycling

Reduces emissions when new products are made from recovered materials, and can also address the challenge of resource scarcity.

DRAWDOWN SOLUTIONS

"When it comes to global warming we've been focusing too much on the problem instead of the solution... Regenerative development actually heals the future as opposed to stealing from it, which is what we're doing today." ~ Paul Hawken, *Drawdown*



Rank	Solution	Sector	TOTAL ATMOSPHERIC CO ₂ REDUCTION (Gt)	NET COST (\$ BILLIONS US \$)	SAVINGS (\$ BILLIONS US \$)
1	Refrigerant Management	Materials	89.74	N/A	\$-902.77
2	Wind Turbines (Onshore)	Electricity Generation	84.60	\$1,225.37	\$7,425.00
3	Reduced Food Waste	Food	70.53	N/A	N/A
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	59.60	N/A	N/A
7	Family Planning	Women and Girls	59.60	N/A	N/A
8	Solar Farms	Electricity Generation	36.90	\$-60.60	\$5,023.84
9	Silvopasture	Food	31.19	\$41.59	\$699.37
10	Rooftop Solar	Electricity Generation	24.60	\$453.14	\$3,457.63
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	\$382.33
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