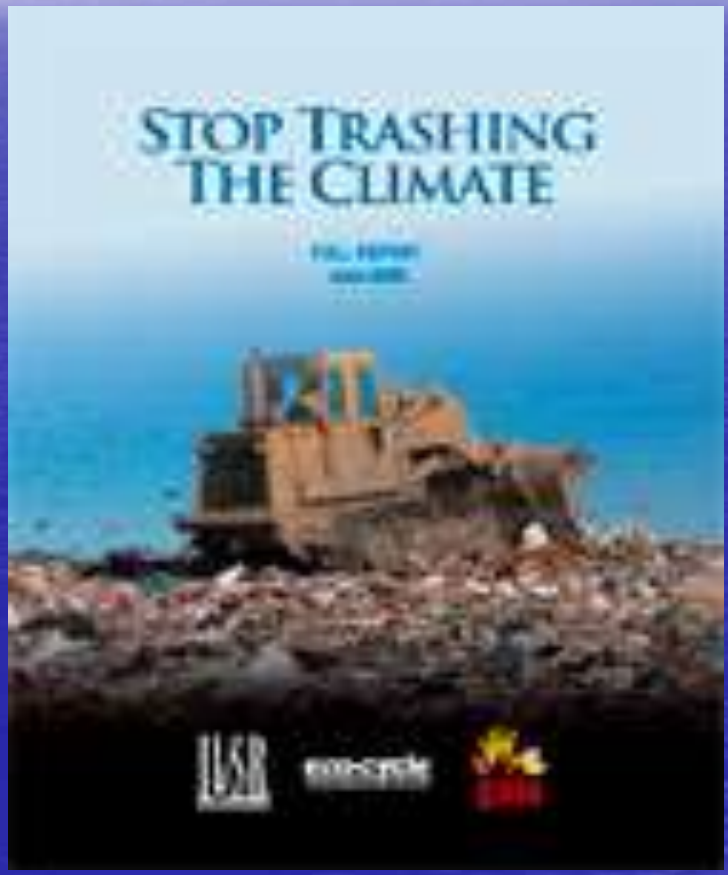
Wasting, Recycling & Climate Change

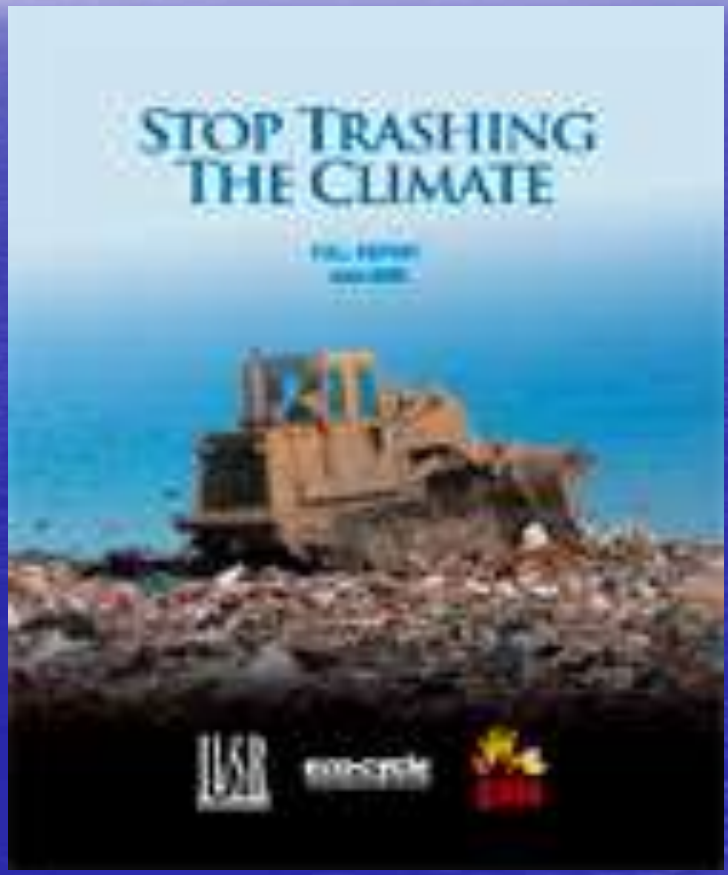
Wasting = Climate Change



Wasting = Climate Change

US consumes 1/3 of the world's timber

Deforestation = 30% GHG emissions

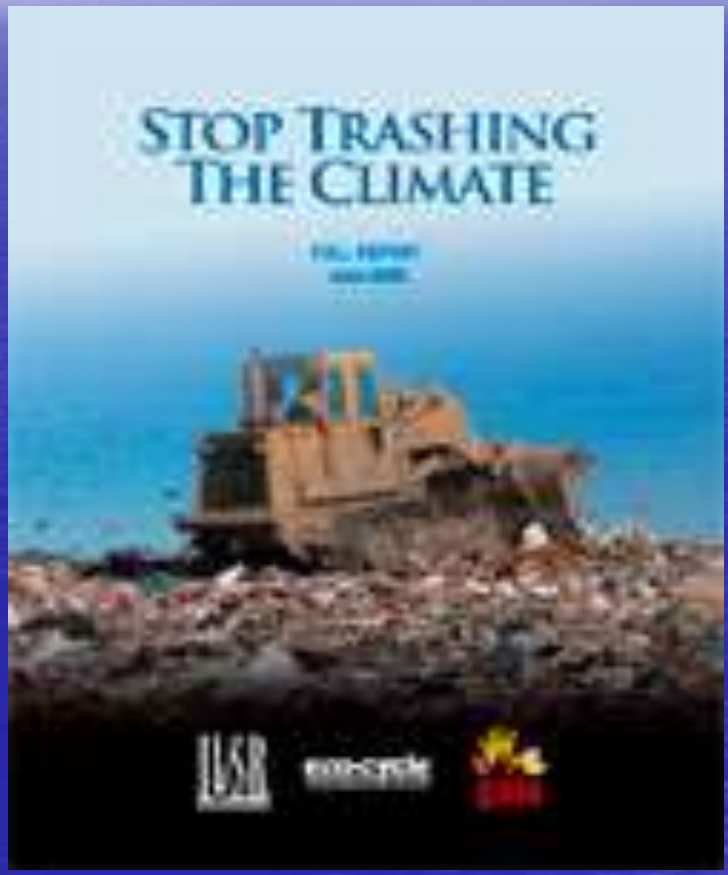


Wasting = Climate Change

US = 5% World Population

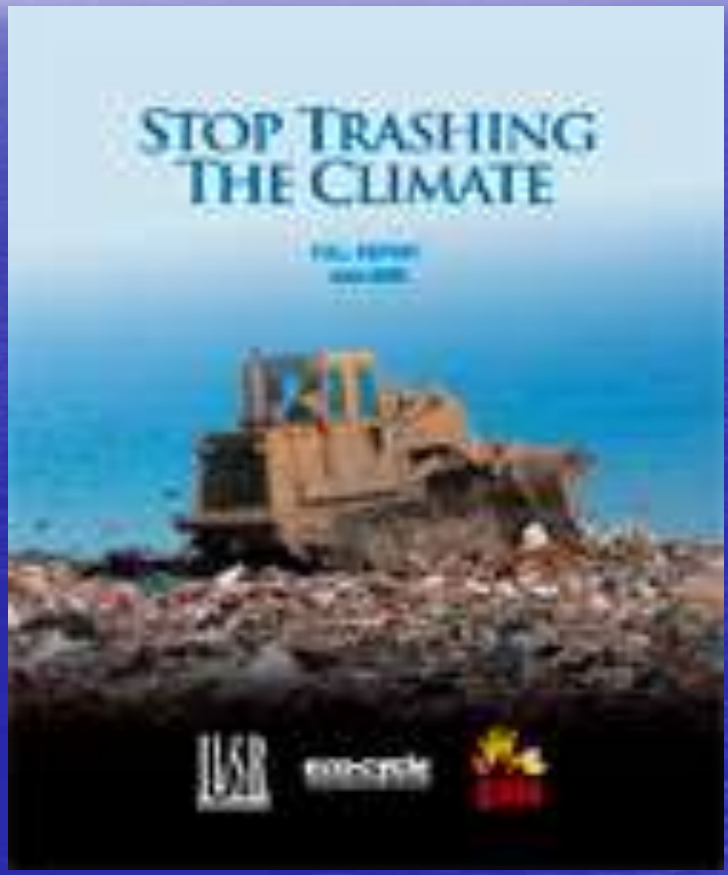
US = 22% GHG

US = 30% World's Waste

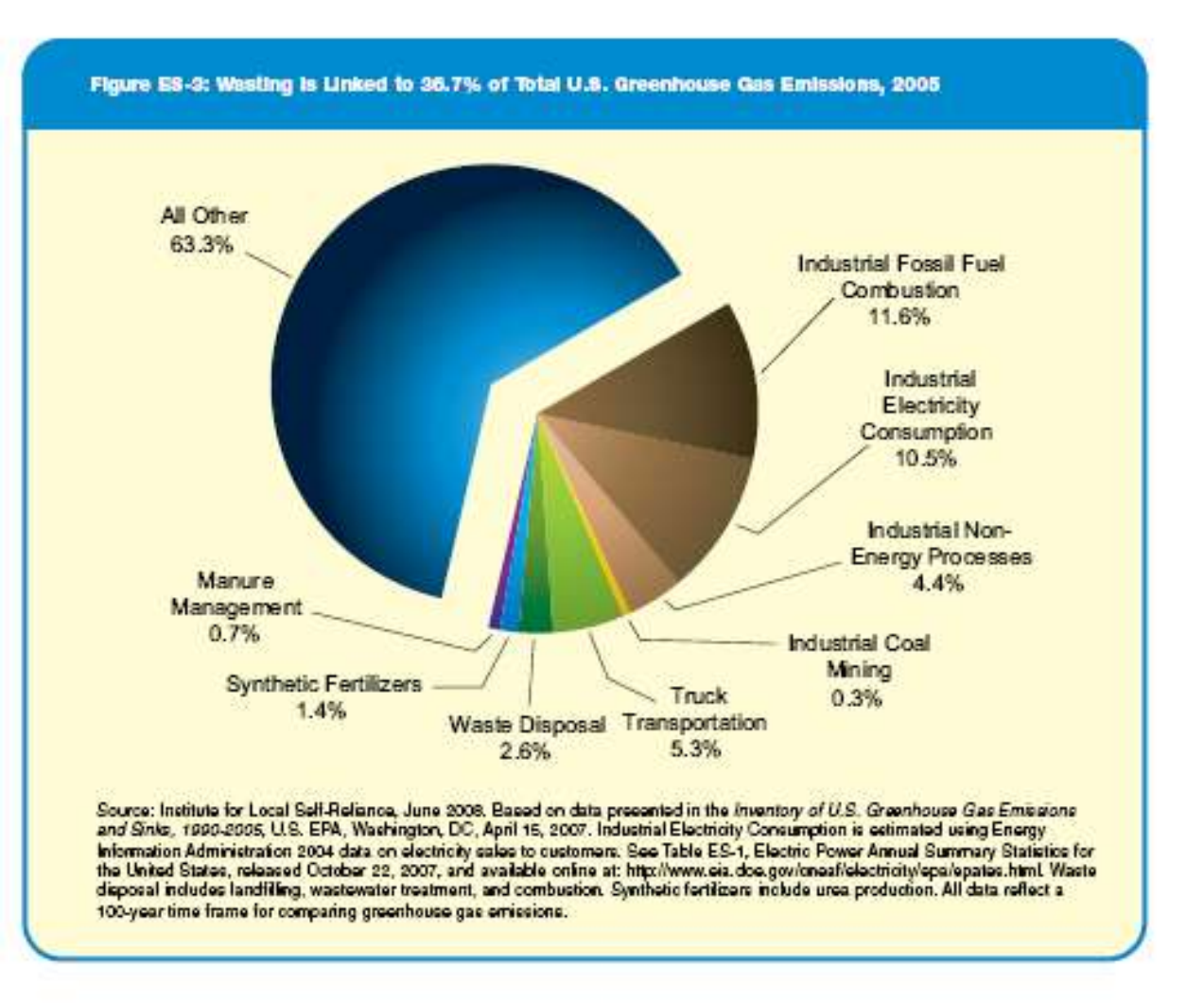


Wasting = Climate Change

- Mining
- Deforestation
- Transportation
- Industrial Processing
- Manufacturing



Wasting = 36.7% U.S. Greenhouse Gas Emissions



Source: Stop Trashing the Climate , ILSR, June, 2008

Zero Waste = Climate Protection

Table ES-1: Greenhouse Gas Abatement Strategies: Zero Waste Path Compared to Commonly Considered Options (annual reductions in greenhouse gas emissions by 2030, megatons CO_2 eq.)

Greenhouse Gas Abatement Strategy	Annual Abatement Potential by 2030	% of Total Abatement Needed in 2030 to Stabilize Climate by 2050[1]
ZERO WASTE PATH		
Reducing waste through prevention, reuse, recycling and composting	**406**	**7.0%**
ABATEMENT STRATEGIES CONSIDERED BY McKINSEY REPORT		
Increasing fuel efficiency in cars and reducing fuel carbon intensity	**340**	**5.9%**
Improved fuel efficiency and dieselization in various vehicle classes	195	3.4%
Lower carbon fuels (cellulosic biofuels)	100	1.7%
Hybridization of cars and light trucks	70	1.2%
Expanding & enhancing carbon sinks	**440**	**7.6%**
Afforestation of pastureland and cropland	210	3.6%
Forest management	110	1.9%
Conservation tillage	80	1.4%
Targeting energy-intensive portions of the industrial sector	**620**	**10.7%**
Recovery and destruction of non-CO_2 GHGs	255	4.4%
Carbon capture and storage	95	1.6%
Landfill abatement (focused on methane capture)	65	1.1%
New processes and product innovation (includes recycling)	70	1.2%
Improving energy efficiency in buildings and appliances	**710**	**12.2%**
Lighting retrofits	240	4.1%
Residential lighting retrofits	130	2.2%
Commercial lighting retrofits	110	1.9%
Electronic equipment improvements	120	2.1%
Reducing the carbon intensity of electric power production	**800**	**13.8%**
Carbon capture and storage	290	5.0%
Wind	120	2.1%
Nuclear	70	1.2%

Zero Waste = Climate Stabilization

Abatement Strategies:	% abatement
• Waste Reduction, Recycling, Composting	7.0%
• Fuel Efficiency	5.9%
• Expanding Carbon Sinks	7.6%
• Industrial Sector	10.7%
• Buildings & Appliances	12.2%
• Electric Power Production	13.8%

Source: ILSR, GAIA, and Eco-Cycle, *Stop Trashing the Climate* (2008), and McKinsey & Company, *Reducing U.S. Greenhouse Gas Emissions: How Much and at What Cost? (2007)*

Landfills = Methane

Methane = 72x carbon

Compostable Materials= Methane

Methane = 72x carbon

Landfill Methane = 21% of US Coal-Fired Plants

Reducing methane is vital to avoid crossing irreversible tipping points

[Methane] deserves special attention in efforts to stem global warming…Given the difficulty of halting near-term CO_2 growth, the only practical way to avoid [dangerous interference] with climate may be simultaneous efforts to reverse the growth of [methane].”

—James Hansen

Greenhouse gas growth rates, Nov 16 ‘06
Proceedings National Academy of Sciences

Existing technologies are not enough

Immediate change is needed

This means simple things have added urgency. What could be simpler than composting and organics recycling?

Methane is an excellent target for short-term climate change mitigation:

- 72x carbon
- 9-12 years in the atmosphere

STOP TRASHING THE CLIMATE

A Zero Waste Strategy
preventing waste, maximizing reuse, composting, and expanding recycling is the *fastest and easiest way to reduce our carbon footprint and stabilize the climate.*

Stop Trashing the Climate

Institute for Local Self-Reliance

June, 2008

www.StopTrashingtheClimate.org

Compostable Organics out Landfill by 2012

GrassRoots Recycling Network and BioCycle Magazine

www.COOL2012.org

GrassRoots Recycling Network

www.grrn.org

Zero Waste Community Planning

Zero Waste Business Profiles

Zero Waste Business Principles