



Topic of Discussion

# **“Can We Mobilize Fast Enough?”**

Presented by  
Plan B Project Team

Plan B 4.0: Mobilizing to Save Civilization  
by Lester R. Brown

# Plan B: 4 Goals to Accomplish by 2020



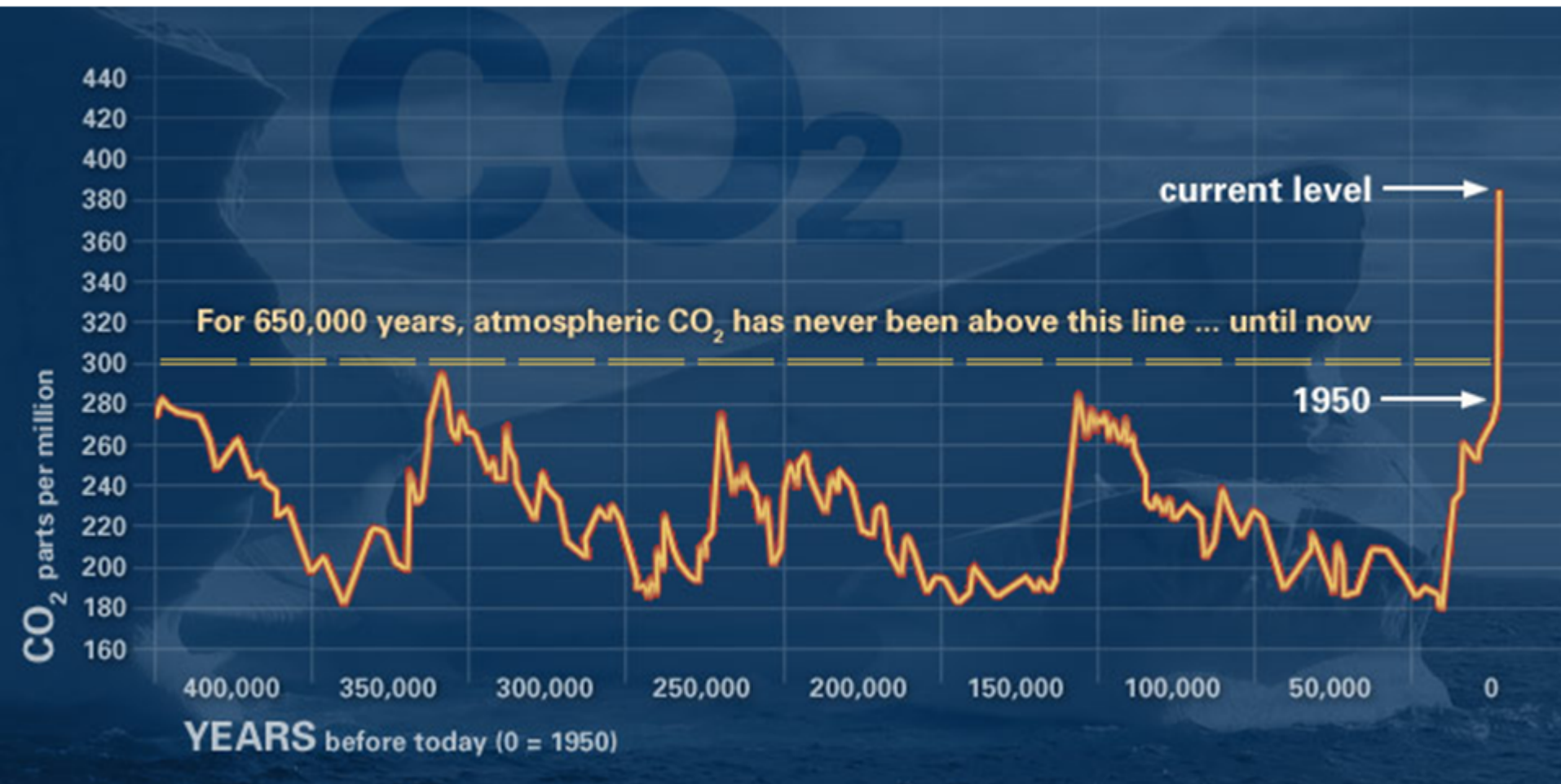
- Stabilizing Climate
- Stabilizing Population



- Eradicating Poverty
- Restoring the Earth



# Stabilizing Climate



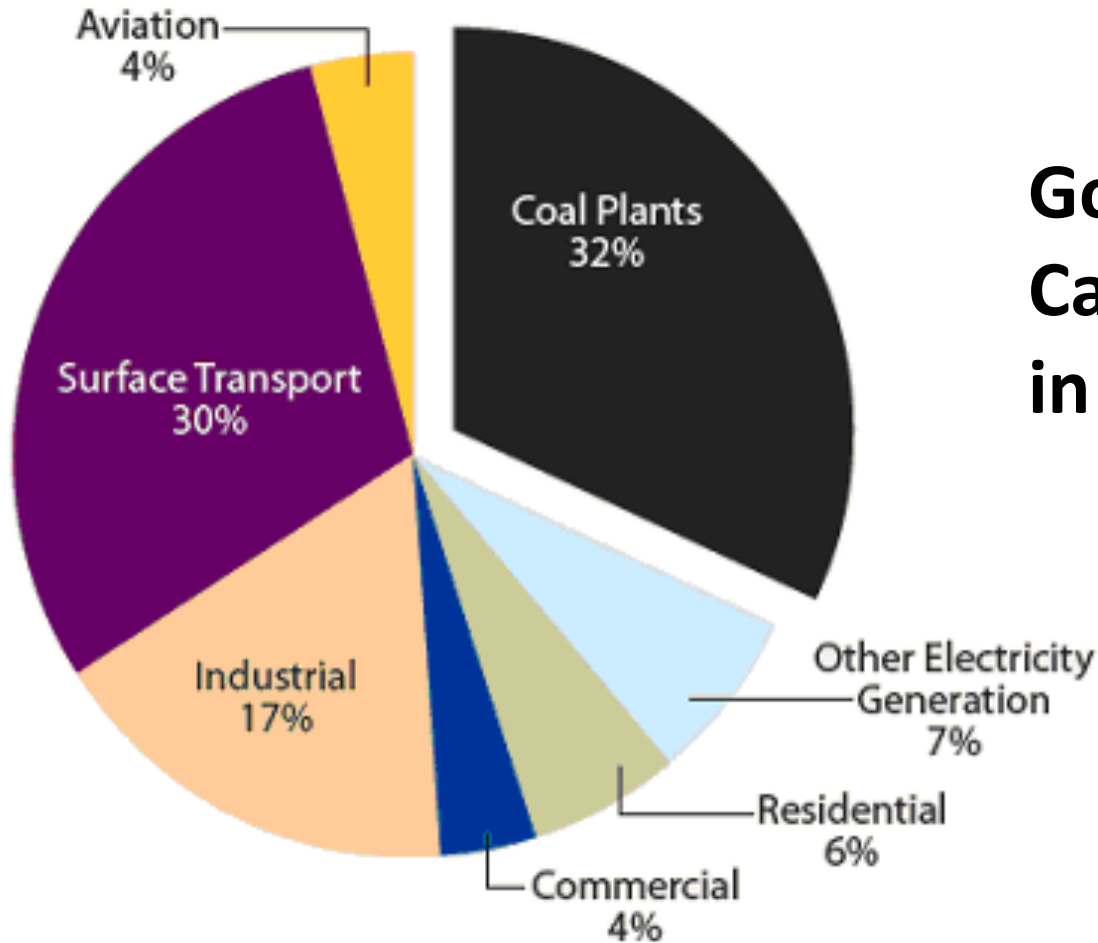
Limit CO<sub>2</sub> emissions in 400 ppm

Source: National Oceanic and Atmospheric Administration



# Carbon Dioxide Emissions

**Goal: Reduce  
Carbon Emissions  
in 80% by 2020**



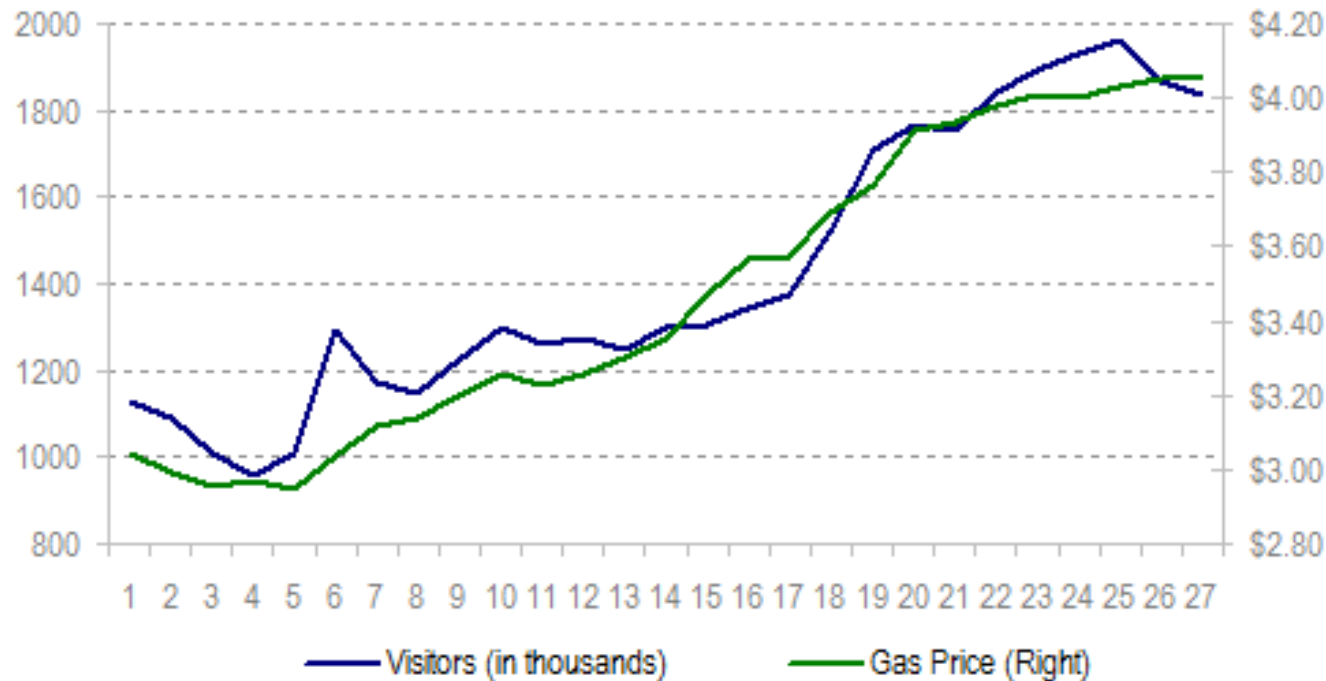
Source: US Environmental Protection Agency



# Increase Gasoline Taxes

## Public Transportation Increase vs Rising Gas Prices

(Correlation of Public Transportation Site Visitors with Gas Prices,  
Weeks of Jan 6 - Jul 12, '08)



Source: Compete.com

**Fuel Prices  
Increasing**

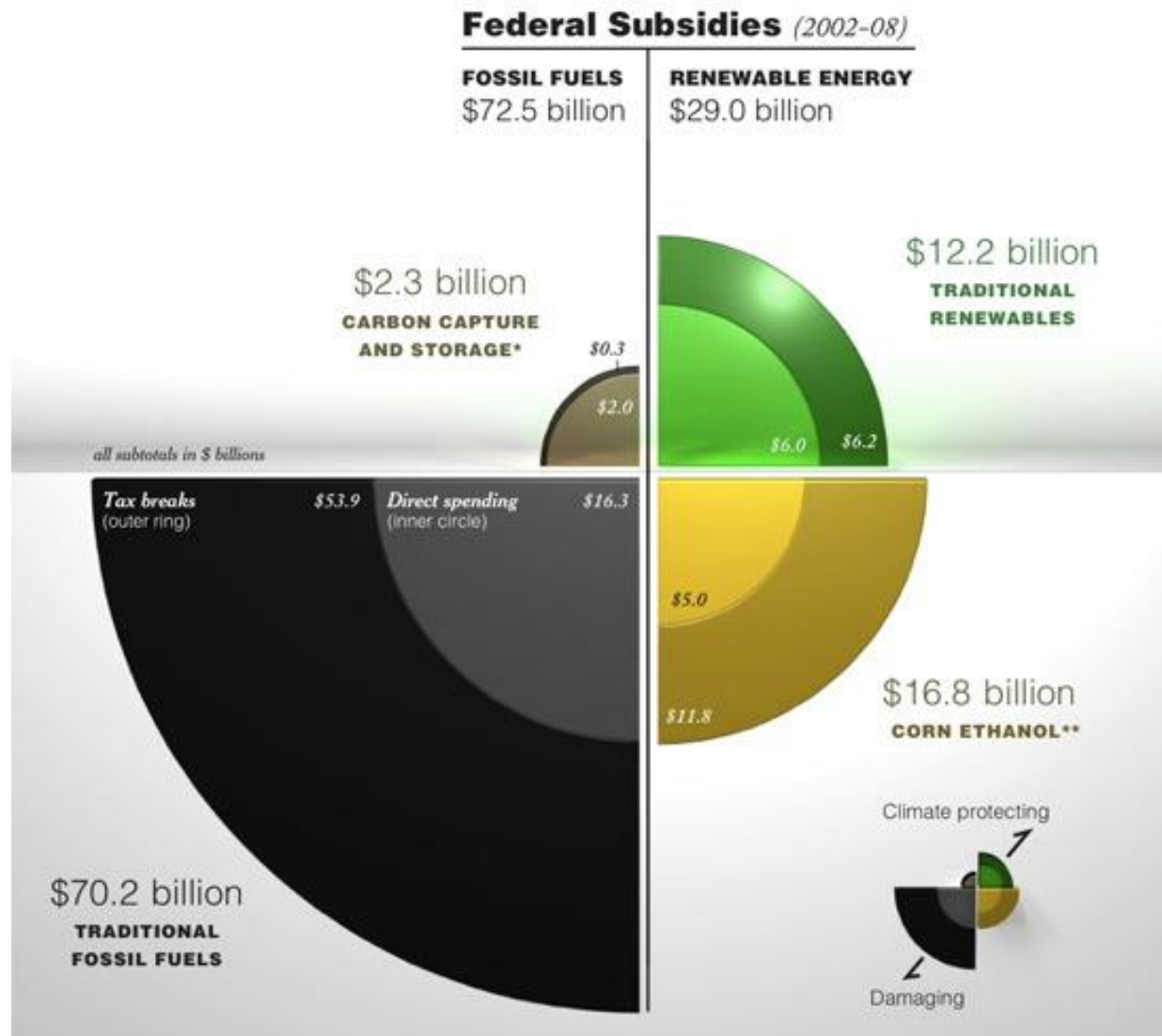
**Public  
Transportatio  
n**

**Less Cars  
Less CO2 Emissions**





# Shifting Subsidies



Source:  
International Energy Agency



# Decrease Fossil Fuels Subsidies



Fuel taxes and subsidies are the only ways that governments can influence people's overall energy consumption, *according to the International Monetary Fund.*

## **With Subsidies**

- Average gallon of gas in the US = **\$3.55.**

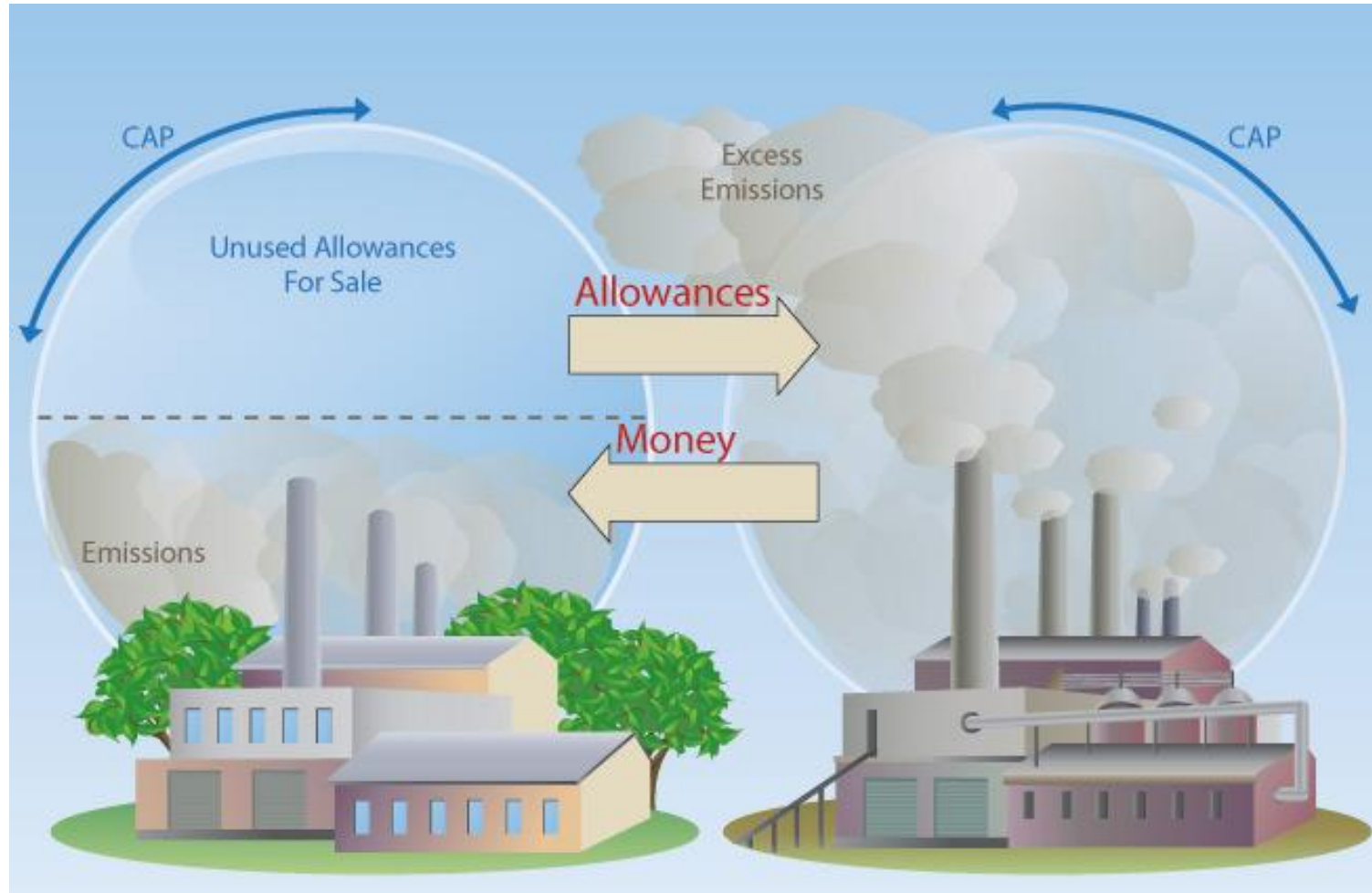
**Without subsidies** and including indirect costs (paying for external CO2 emissions, with connected health hazards)

- Average gallon of gas in the US = **\$15.**

Source: International Monetary Fund



# Cap and Trade Policy



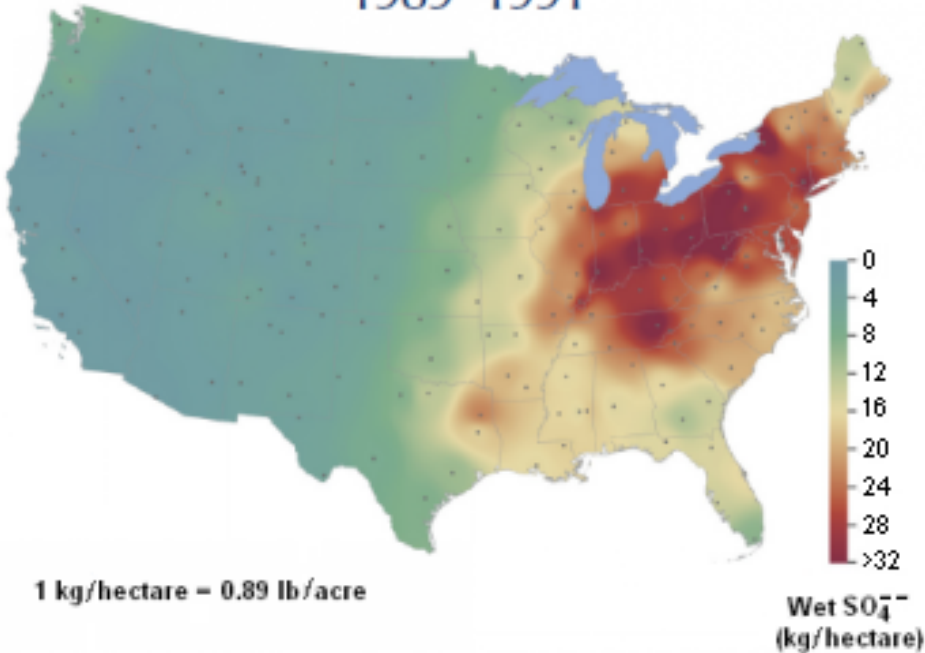
Source: Earthlynews.com



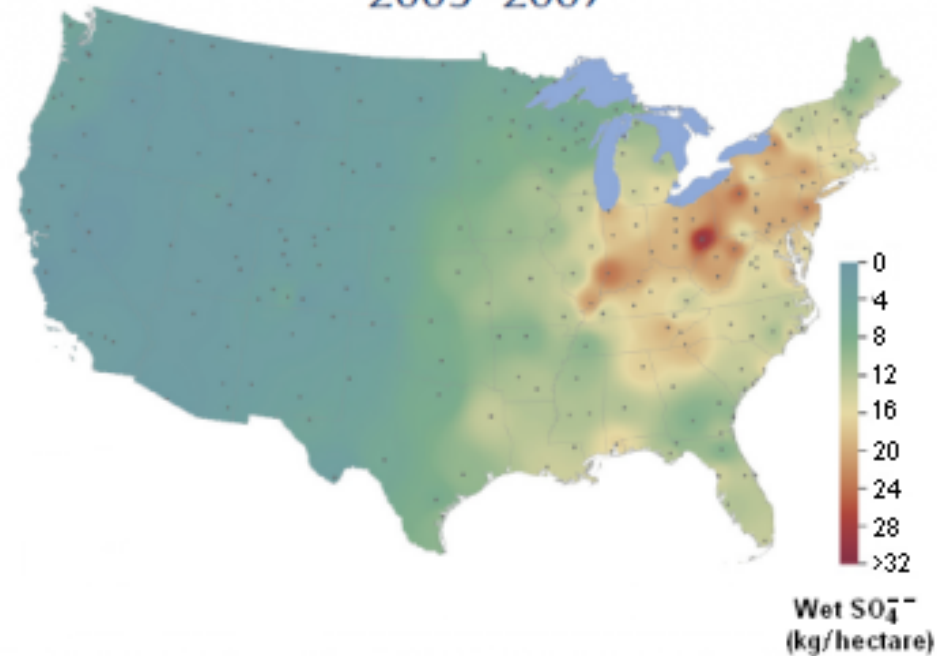


# National Atmospheric Deposition Program

Annual Mean Wet Sulfate Deposition  
1989–1991



Annual Mean Wet Sulfate Deposition  
2005–2007



It has worked with Sulfur Dioxide  
**Why not other Greenhouse Gasses?**

Source: United States National Atmospheric Deposition Program



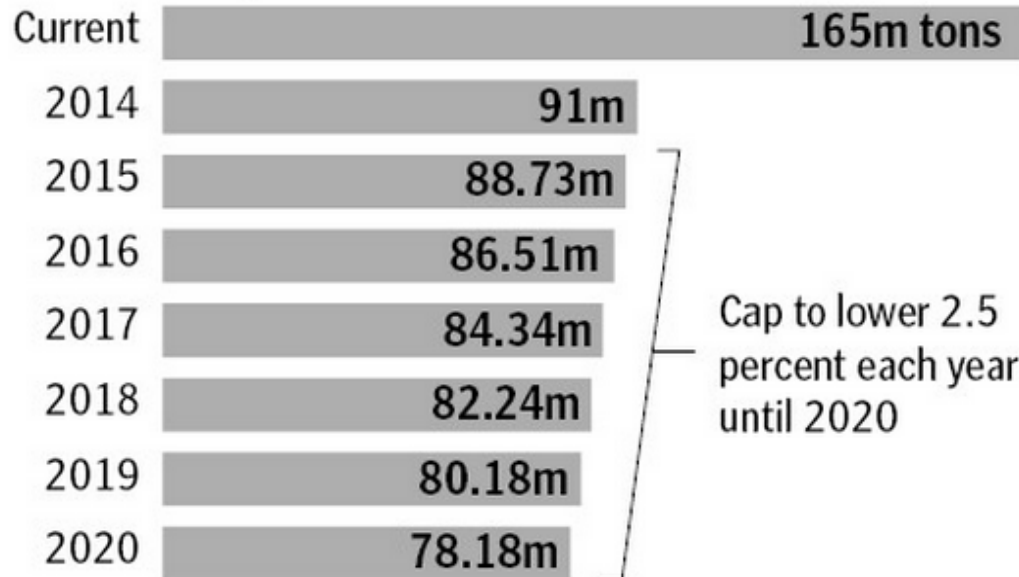
# Regional Greenhouse Gas Initiative

## REDUCING POWER PLANT CO<sub>2</sub>

Massachusetts and eight other states in the Regional Greenhouse Gas Initiative will dramatically lower allowable power plant greenhouse gas emissions.

2012 emissions  91m tons

### Emissions cap

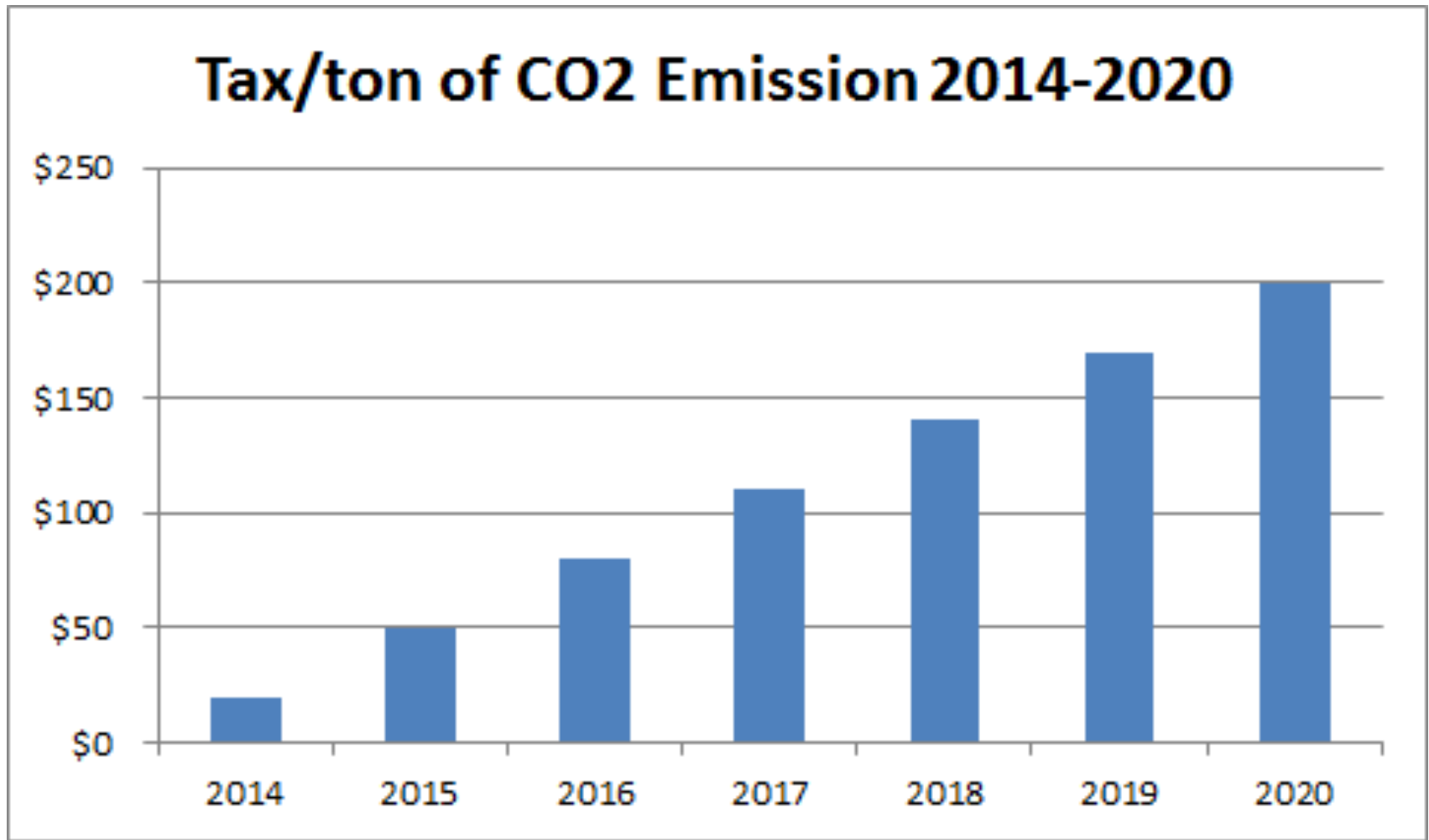


NOTE: Does not include banked allowances and other adjustments.

SOURCE: RGGI, Massachusetts Department of Environmental Protection



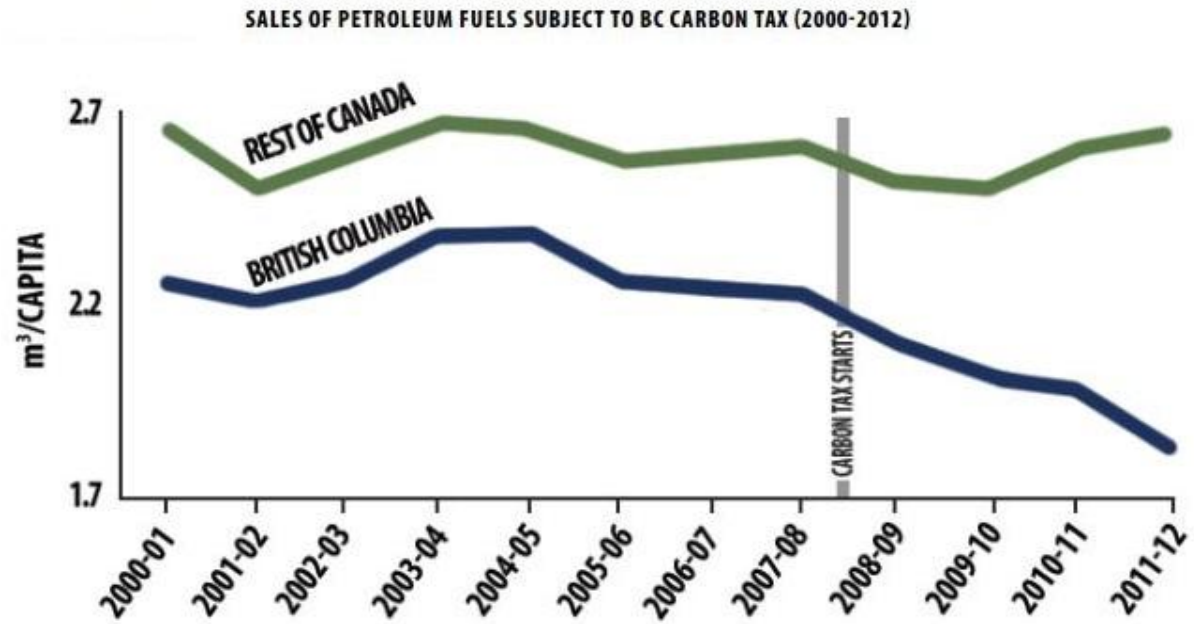
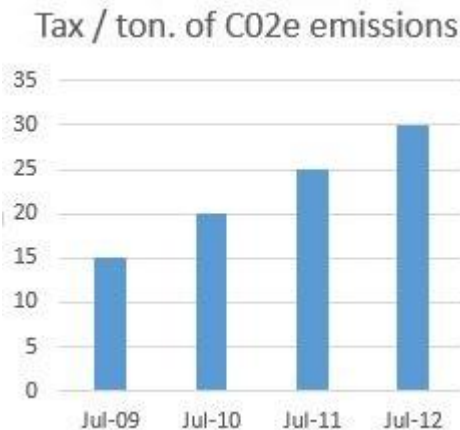
# Plan B: Apply Tax to Carbon Emissions



Source: BC's Carbon Tax Shifted After 5 Years: Results



# British Columbia Carbon Tax



GHG EMISSIONS PER CAPITA					
	2008	2009	2010	2011	total 2008-11
BC	-1.5%	-6.7%	-1.1%	-2.4%	-10.0%
REST OF CANADA	-3.6%	-3.9%	-0.9%	3.9%	-1.1%
DIFFERENCE	2.1%	-2.8%	-0.2%	-6.3%	-8.9%

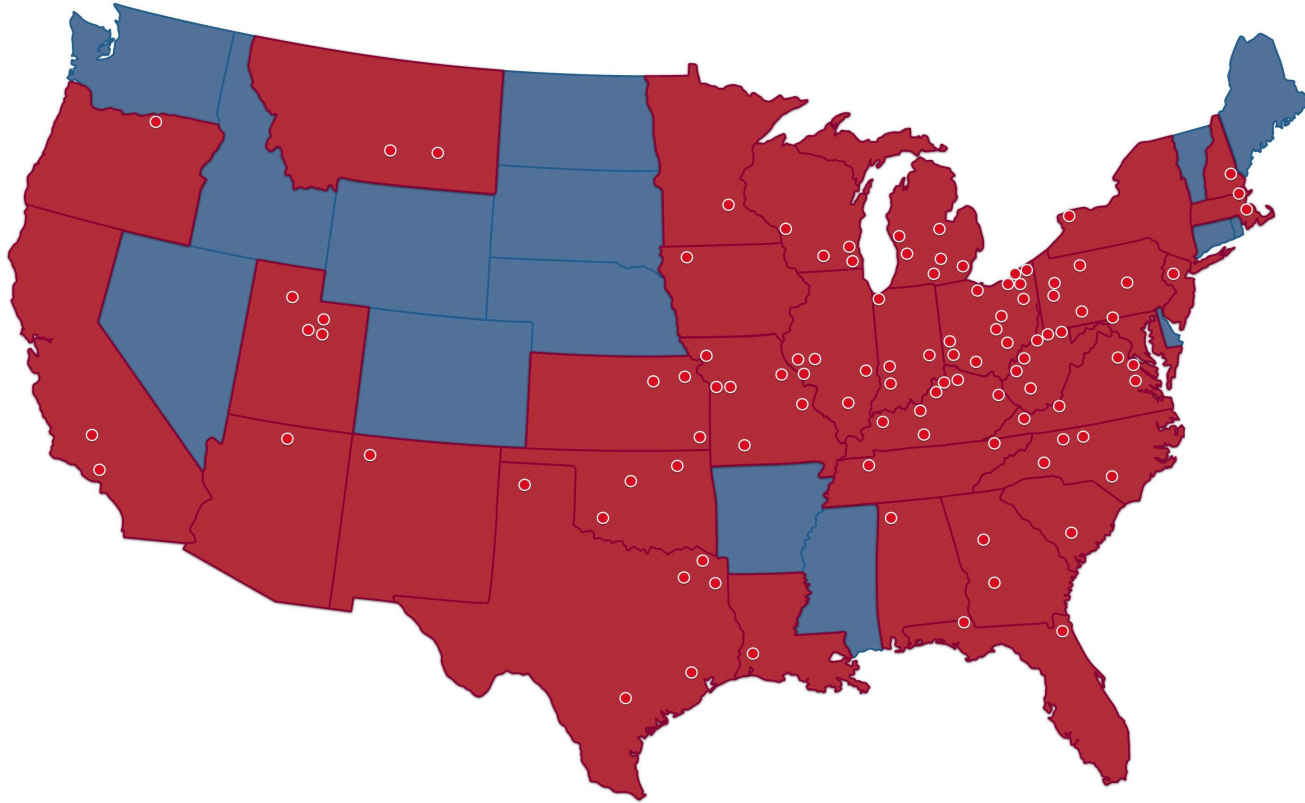
BC AND CANADA GDP PER CAPITA					
	2008	2009	2010	2011	2008-11 Total
BRITISH COLUMBIA	-1.16%	-3.90%	1.64%	1.92%	-0.15%
REST OF CANADA	-0.45%	-3.88%	1.91%	1.38%	-0.23%

Source: BC's Carbon Tax Shifted After 5 Years: Results





# Coal: The Beginning of The End



- Coal-fired power plants, responsible for 10% of electricity produced by coal (36MW), to be closed by EPA
- Turn down the current plants
- Prohibition of new plants

Source: US Environmental Protection Agency





# Renewable Energy



Source: Energy and Capital



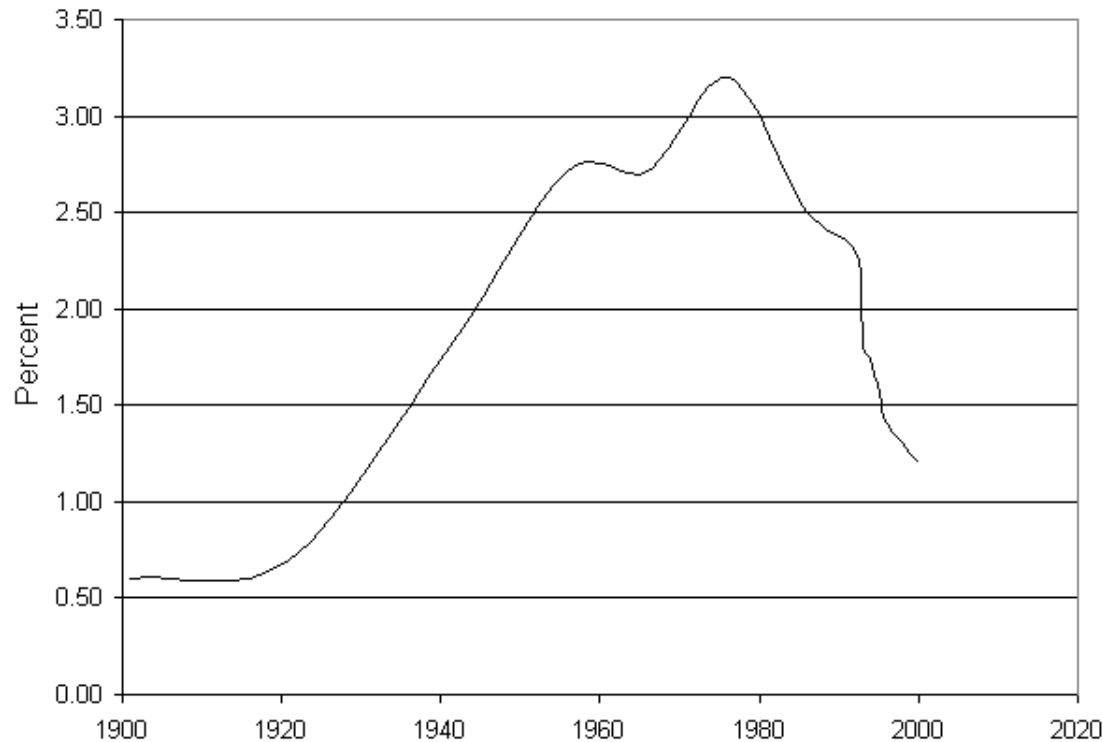
# Ecotech Becoming better NOW

## Masdar Institute



# Stabilize Population: Successful Case

Annual Population Increase in Iran, 1901-2000



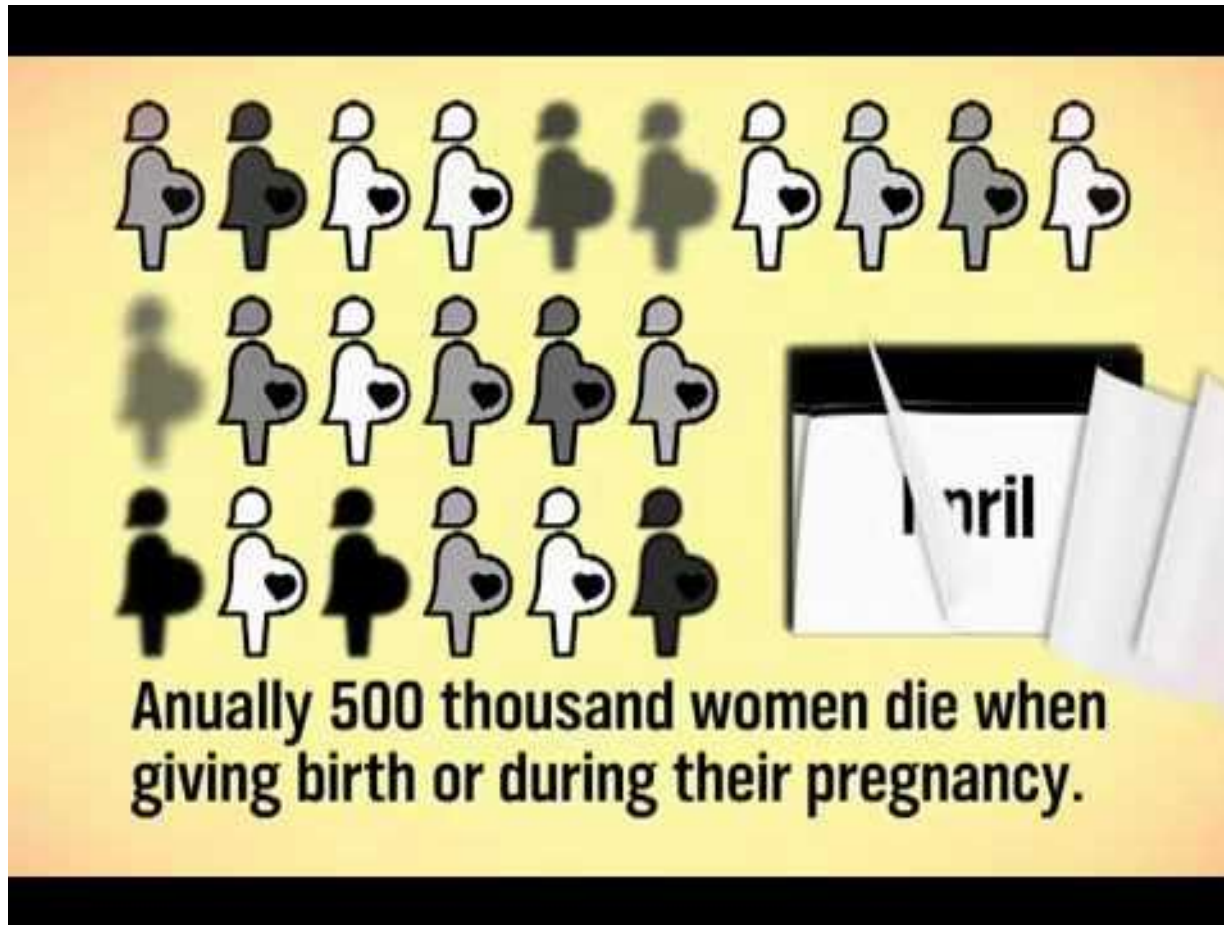
Source: Central Budget and Planning Organization, and Statistics and Registration Administration of Iran

Iran's population growth rate dropped from an all-time high of **3.2 percent in 1986** to just **1.2 percent in 2001**, one of the fastest drops ever recorded.



# Eradicating Poverty:

Saving the World Now





# Eradicating Poverty:

## What the UN has done



The **Bangladesh** government, with international assistance, has carried out **the largest vaccination campaign** against measles in the world which immunized **33.5 million** children between 9 and 10 years in only **20 days**.



Source: <http://www.endpoverty2015.org/mdg-success-stories/>





# Restoring the Earth

Successful Reforestation Program: China's Nature Conservancy



# Plan B CO2 Emissions Reductions and Sequestration in 2020

Energy Restructuring	Amount (millions tons carbon)
Replacing fossil fuels with renewables for electricity and heat	3,210
Restructuring the transport system	1,400
Reducing coal and oil use in industry	100

Biological Carbon Sequestration	Amount (millions tons carbon)
Ending net deforestation	1,500
Planting trees to sequester carbon	860
Managing soils to sequester carbon	600

<b>Total Carbon Dioxide Reduction in 2020</b>	<b>7,670</b>
<b>Carbon Dioxide Emissions in 2006</b>	<b>9,350</b>

**Percentage Reduction: 82%**

Source: Lester Brown, Plan B 4.0, 2010



# Plan B Budget: Additional annual expenditure needed to meet social goals

Social Goal	Funding (billion dollars)
Universal primary education	10
Eradication of adult illiteracy	4
School lunch programs for 44 poorest countries	6
Assistance to preschool children and pregnant women in 44 poorest countries	4
Reproductive health and family planning	17
Universal basic health care	33
Closing the condom gap	46
<b>Total</b>	<b>77</b>

Source: Lester Brown, Plan B 4.0, 2010



# Plan B Budget: Additional annual expenditure needed to restore the Earth

Earth Restoration Goal	Funding (billion dollars)
Planting trees to reduce flooding and conserve soil	6
Planting trees to sequester carbon	17
Protecting topsoil on cropland	24
Restoring rangelands	9
Restoring fisheries	13
Protecting biological diversity	31
Stabilizing water tables	10
<b>Total</b>	<b>110</b>

Source: Lester Brown, Plan B 4.0, 2010



# Military Budgets by Country and for the World in 2008 and Plan B Budget

Country	Budget (billion dollars)
United States	607
China	85
France	66
United Kingdom	65
Russia	59
Germany	47
Japan	46
Italy	41
Saudi Arabia	38
India	30
All other	380
<b>World Military Expenditure</b>	<b>1,464</b>

Plan B Budget:

**\$187 billion dollars**

Plan B: **13%** of World  
Military Expenditure

Iraq War: **\$642 billion**  
Plan: **30%** of the Iraq's  
war budget

Source: Lester Brown, Plan B 4.0, 2010





# A Wartime Mobilization

After Pearl Harbor was attacked, President Roosevelt issued a directive to build: **45,000** tanks, **60,000** planes, **20,000** artillery guns and **4,000** ships.

*“Let no man say it cannot be done. It must be done and we have undertaken to do it.”* — President Franklin Roosevelt

From 1942 to 1944:  
**229,600** aircrafts  
**5,000** ships

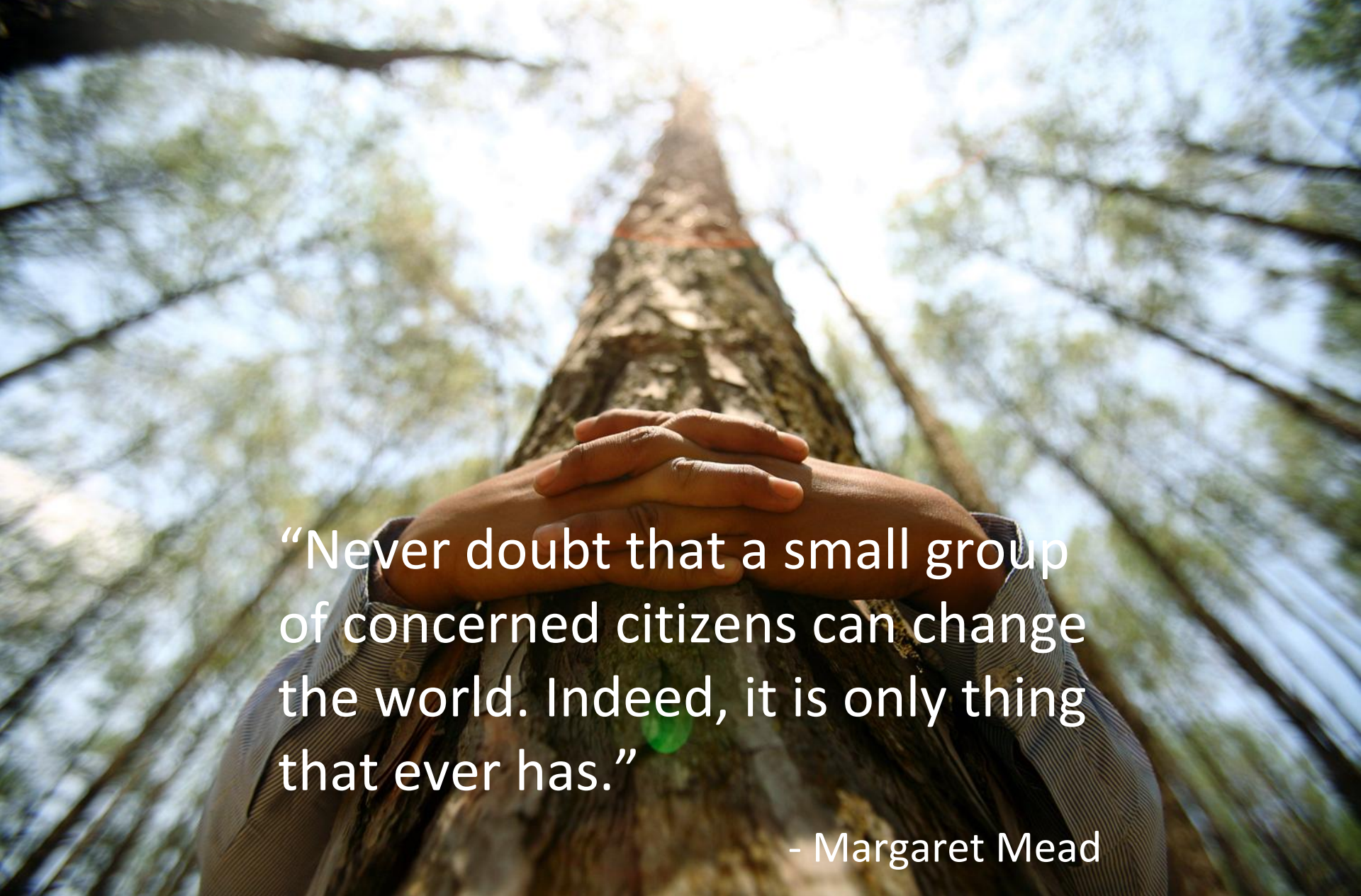


# What you and I Can Do?

## “I Will if You Will” Challenge.







“Never doubt that a small group  
of concerned citizens can change  
the world. Indeed, it is only thing  
that ever has.”

- Margaret Mead



## Schedule of presentations: 5:30 pm - 7:30 pm

Date:Thursday	Topics
June 20	Selling our Future
June 27	Population Pressure: Land & Water
July 11	Climate Change & the Energy Transition
July 18	Stabilizing Climate:An Energy Efficiency Revolution
July 25	Stabilizing Climate:Shifting to Renewable Energy
August 1	Designing Cities for People
August 8	Eradicating Poverty & Stabilizing Population
August 15	Restoring the Earth
August 22	Feeding Eight billion People Well
August 29	Can We Mobilize Fast Enough
September 5	Summary & Priorities