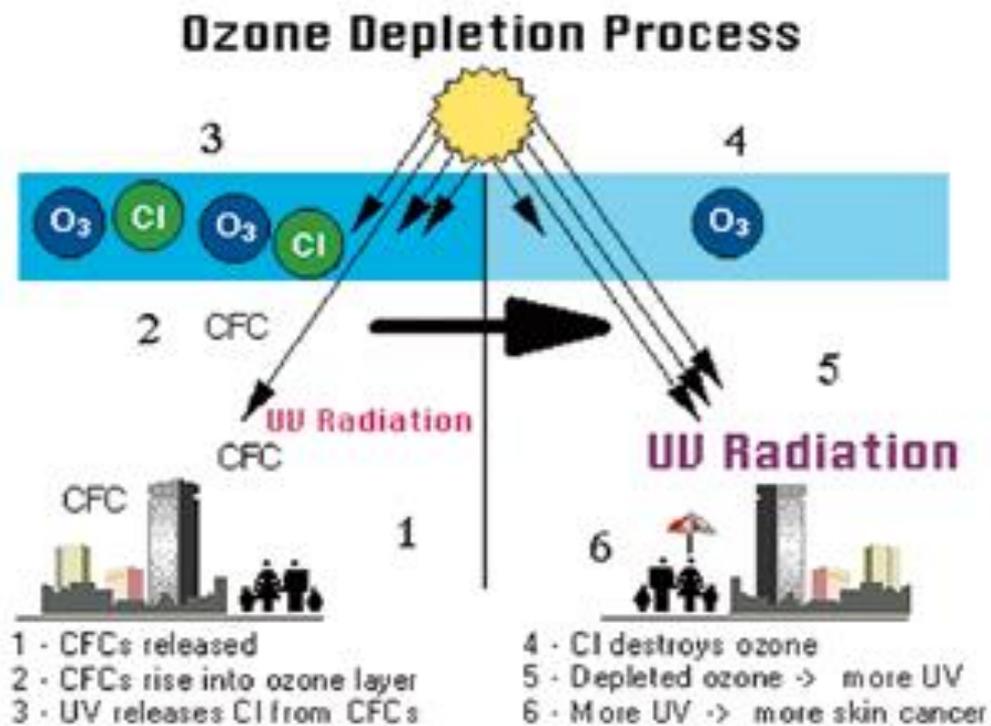
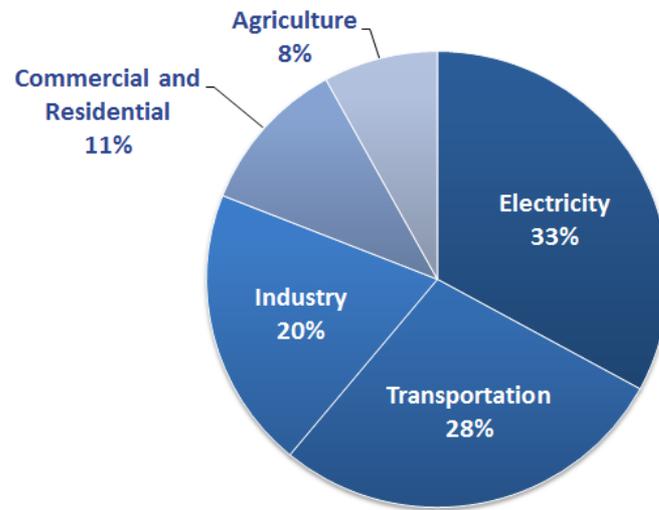
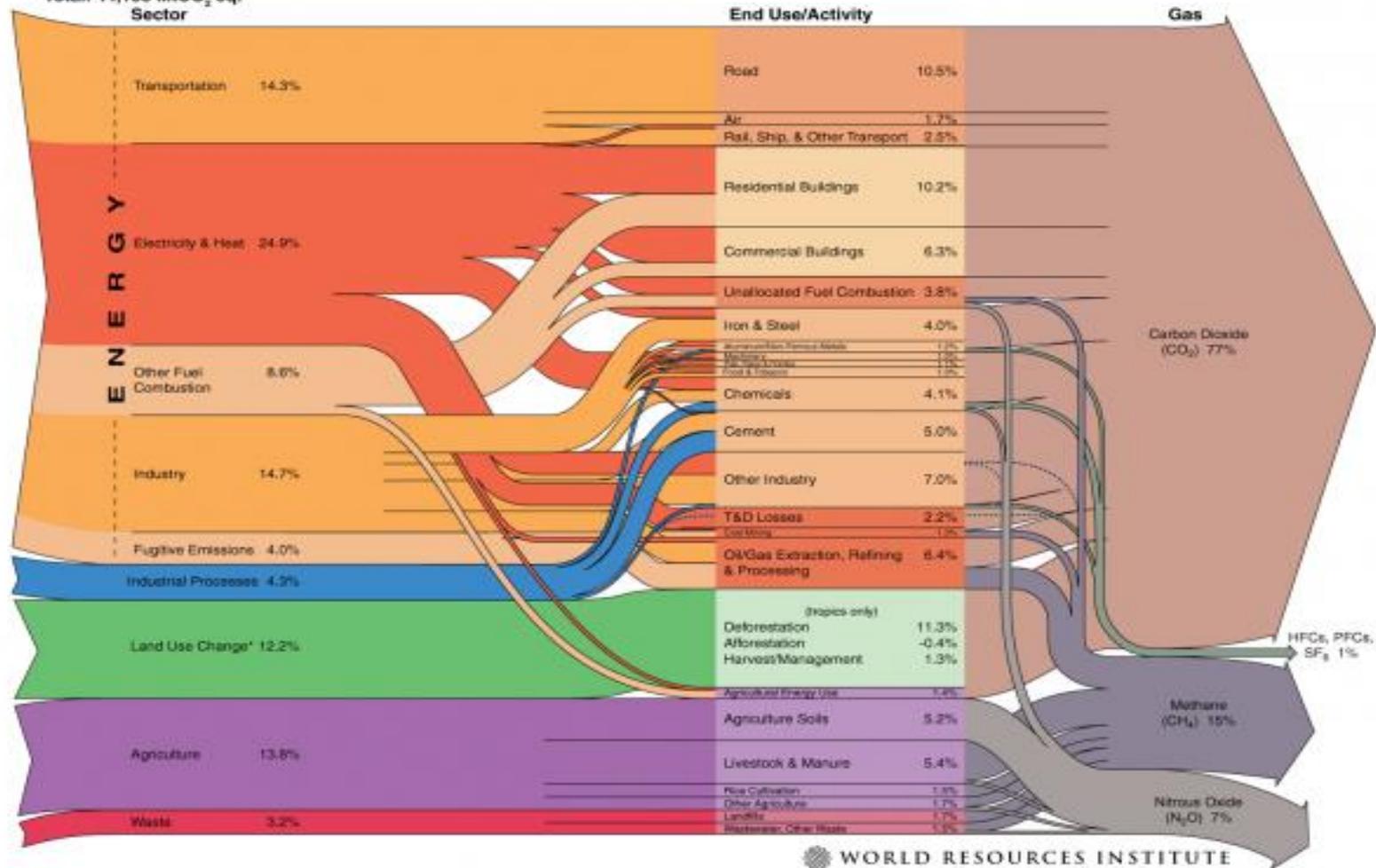


# Montreal Protocol



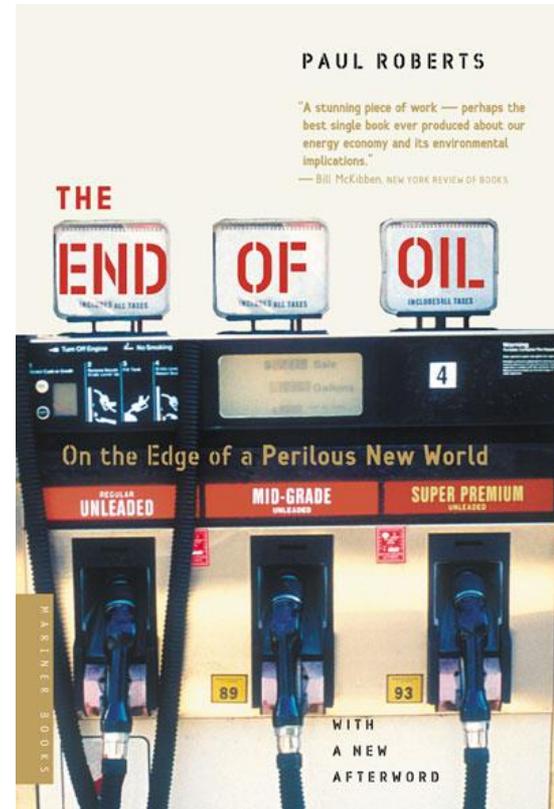
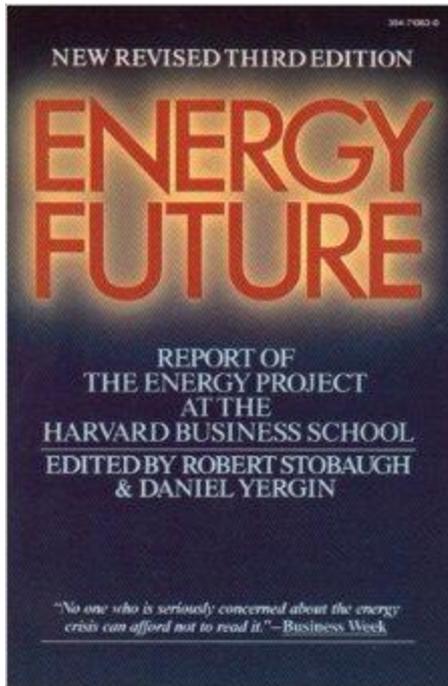


**World Greenhouse Gas Emissions in 2005**  
 Total: 44,153 MtCO<sub>2</sub> eq.



**Coal-fired power plant emissions for one year**

In 2009, a total of 457 power plants used coal to generate at least 95% of their electricity (EPA 2012). These plants emitted 1,614,625,638.1 metric tons of CO<sub>2</sub> in 2009.



Implementing President Obama's  
Climate Action Plan:  
Process, Framework, and Impacts  
for GHG New Source Performance  
Standards

# Overview of Climate Action Plan (CAP)

- Three Key Goals
  - 17% reduction in carbon emissions from 2005 to 2020
  - Prepare United States to adapt to climate change
  - Take leadership role in international climate change efforts
- Wide Range of Issues Addressed
  - Commitment to reduce carbon from new and existing utilities
  - Government purchase and installation of renewable energy
  - Incentives and guarantees for renewable energy
  - Investments in infrastructure for adaptation

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# NSPS: Five Key Distinctions with PSD

- (1) NSPS are organized by source categories
- (2) NSPS are based on “Best Demonstrated Technology” (BDT)
- (3) NSPS apply at the time of proposal
- (4) NSPS requires endangerment from “source category”
- (5) NSPS can reach existing sources through 111(d)

# NSPS Primer: Addressing Existing Sources

Section 111(d) applies to source categories that EPA first regulated if new.

- Directs EPA to establish a SIP approval procedure similar to NAAQS SIPs; states must submit a plan to EPA to establish standards of performance for any existing source for any air pollutant

- (1) for which there is no NAAQS; and

- (2) is not emitted from a source category regulated under Section 112.

- If a state does not develop a plan, EPA has the same authority as it does for SIPs to impose a plan on the state.

- Standards of performance must take into consideration “among other factors, the remaining useful life of the existing source to which such standard applies.”

- EPA has used 111(d) for municipal solid waste landfills, municipal waste combustors, sulfuric acid plants, primary aluminum reduction plants, and the phosphate fertilizer manufacturing.

## (a) Definitions

For purposes of this section:

(1) The term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term “new source” means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

(3) The term “stationary source” means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.

(4) The term “modification” means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which

(A) establishes standards of performance for any existing source for any air pollutant

(i) for which air quality criteria have not been issued or which is not included on a list published under section 7408 (a) of this title or emitted from a source category which is regulated under section 7412 of this title but

(ii) to which a standard of performance under this section would apply if such existing source were a new source, and

(B) provides for the implementation and enforcement of such standards of performance.

Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority—

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410 (c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

# A New Proposal on Carbon Limits for New Power Plants

- Presidential Memorandum directs EPA to complete carbon emissions standards for new and existing power plants
- First clear statement that EPA will issue a new proposal
  - Original proposal issued in April 2012
  - EPA received more than 2.7 million comments
  - EPA needs to improve the legal defensibility of the original proposal
  - EPA is likely to propose distinct standards for coal, natural gas, and petcoke (proposal combined together)
- EPA directed to issue new proposal by September 20, 2013
- Final rule to be issued “in a timely fashion” following public comment; we anticipate final rule no later than June 1, 2014
- **Takeaway:** Administration is committed to finalizing NSPS for new sources within the next 12 months

# A Timeline for Controlling Carbon from Existing Sources

- Commitment to regulate existing sources is most significant announcement in CAP
- Clear timeline for regulation of existing sources
  - June 1, 2014 – proposed “standards, regulations, guidelines”
  - June 1, 2015 – finalized standards
  - June 30, 2016 – deadline for submitting state implementation plans (SIPs); this is key date by which regulation of existing sources can begin
- EPA directed to consult with states, industry, and other leaders
- Standards may include “market-based instruments, performance standards, or other regulatory flexibilities”; preserves all options for 111(d) standards, including cap and trade
- EPA likely will need to engage in option selection in Fall 2013 to meet June 1 deadline
- **Takeaway:** CAP provides a clear schedule to regulation, but no substantive details on scope of standards; no margin of error for deadlines to slip before end of administration

# Key Themes from Industry Comments

- EPA must make source-specific endangerment finding for GHGs before issuing NSPS
- EPA may not use NSPS program to regulate fuel type or design type out of existence
- EPA may not create an aggregate “mega” source category to impose a standard that only one sub-category can achieve
- EPA cannot use NSPS to mandate specific control equipment (i.e. CCS)
- CCS cannot constitute the “best system of emissions reduction” for coal utilities because it is not commercially viable
- EPA provided no rational basis for failing to address modified and reconstructed sources
- EPA failed to fully address the economic and energy impacts of the rule
- EPA should not regulate existing sources under §111(d)
- EPA should not expand GHG NSPS to other sectors

# Absence of Other Sectors

- Stationary Sources - focused solely on utility sector
  - Refineries – EPA has missed consent decree deadline
  - Portland cement – past statements that EPA was considering regulation
  - Other industrial sectors
  - Lack of reference does not mean EPA will not proceed with regulations
- Mobile Sources – focused solely on heavy duty vehicles
  - Off road vehicles
  - Marine engines
  - Aircraft
- Potential for NGO actions or court to force EPA to regulate
- **Takeaway:** Other sectors are not apparent top priority, but could be addressed at any time as sector specific NSPS are revised

# The Suite of Recent Air Regulations Impacting Energy

Name	Effective	New Sources	Existing Sources
GHG PSD	1/2/2011	Yes	No - unless
CSAPR	vacated	Yes	Yes
Utility MACT	4/16/2012	Yes	Yes
GHG NSPS	9/2012	Yes, at time of proposal (except for transitional sources)	?
NAAQS	PM, and upcoming SO <sub>2</sub> , and Ozone revisions		
Oil and Gas NSPS/NESHAP	June 2012	Yes	Yes

# The Emergence of a Citizen Group Strategy Utilizing Environmental Laws

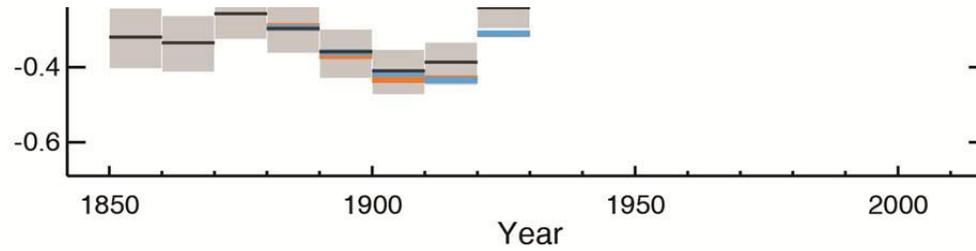


# State of Play: Today

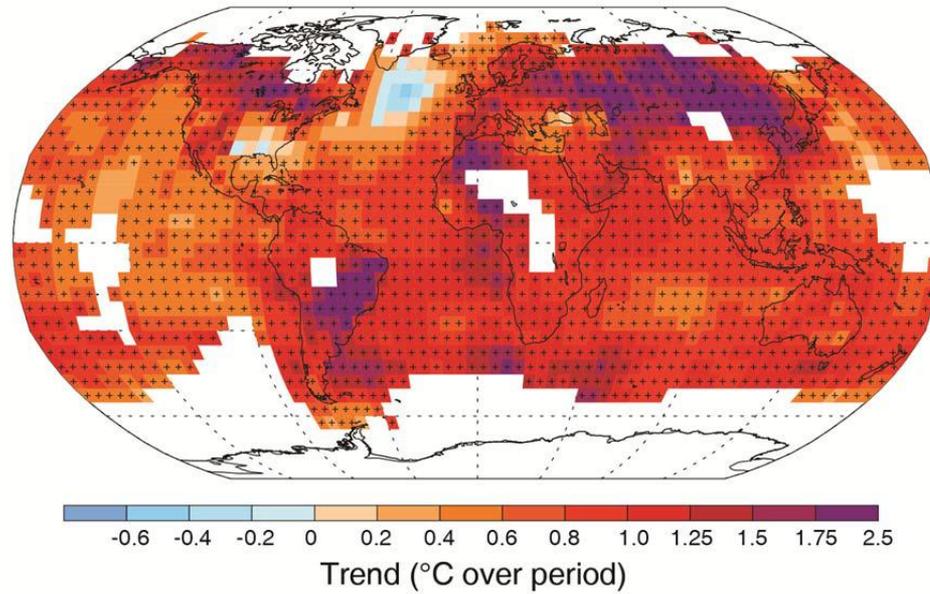


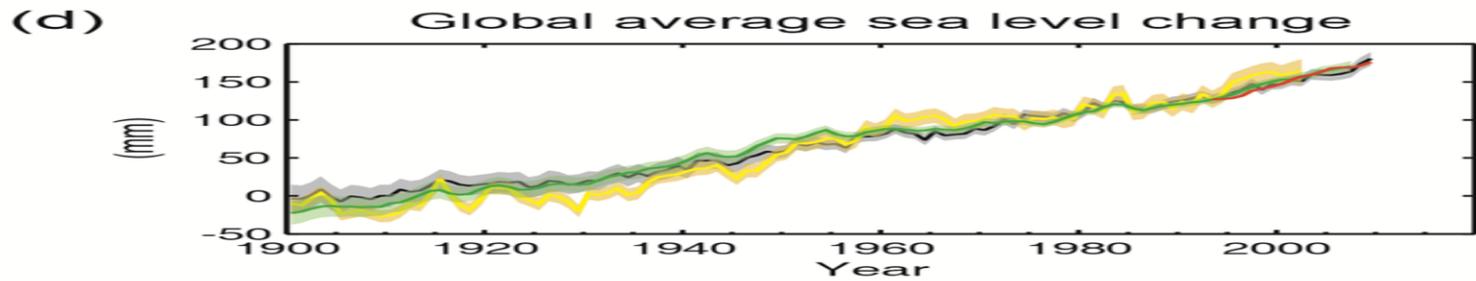
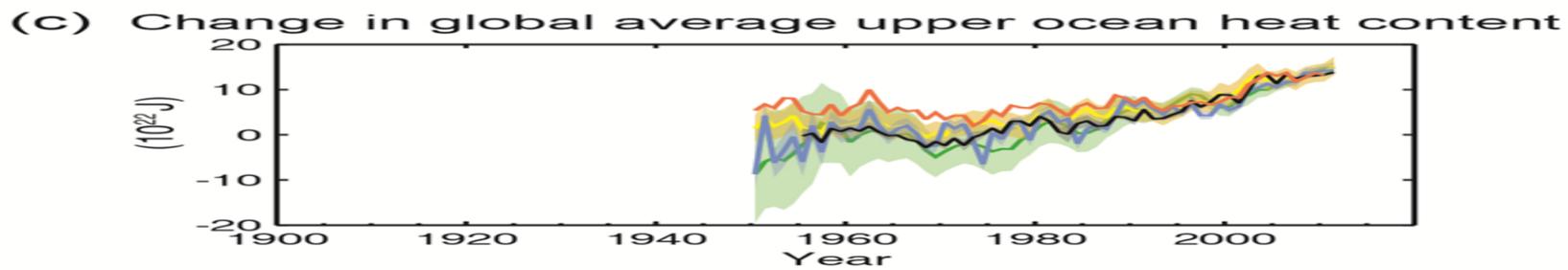
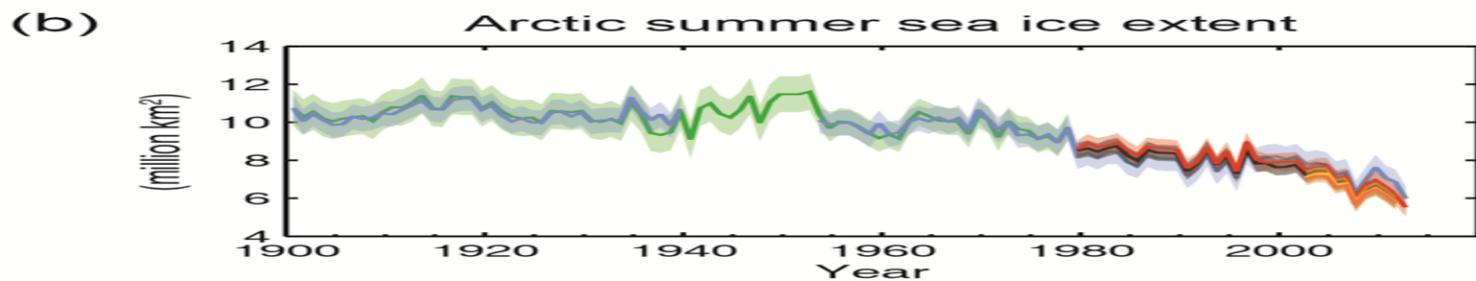
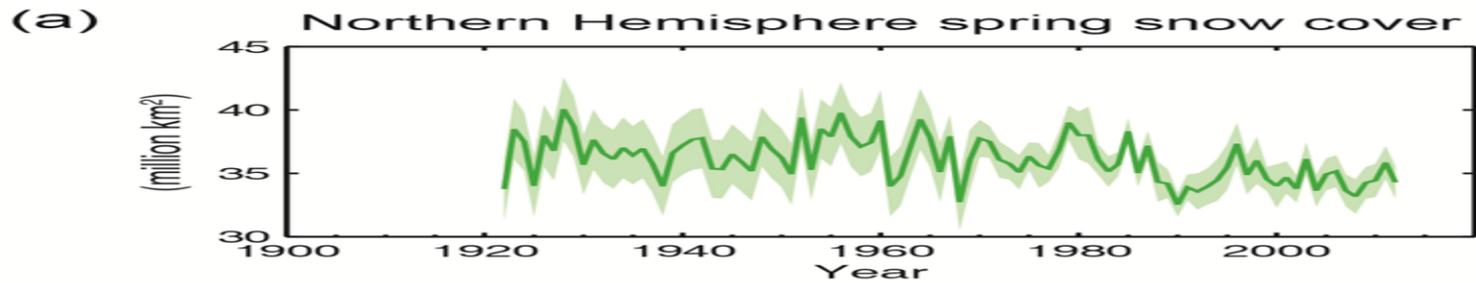
# The Obama EPA: 2013 and Beyond

- **Transportation Sector: Play Defense**
  - **MPG:** “Hands Off” new standards; strict enforcement
  - **Fuels:** Shore up defense on RFS2, E-15; petroleum the new coal?
  - **Other sectors:** Turn to aircraft, marine vessels for GHG regulation
- **Utility Sector: Existing Sources in the Target**
  - **New Coal:** Finalize NSPS for new sources – or maybe not?
  - **Existing Coal:** Ratchet GHG efficiency standards on existing facilities
  - **Permits:** Strict NSPS standards creep into PSD permits
  - **Finalize Rules:** Coal ash, 316(b)
  - **Hydraulic Fracturing:** EPA enters the field
  - **CSAPR 3.0:** Will EPA push the envelope a third time?
- **Manufacturing Sector: The new utilities?**
  - **Permits:** Utility NSPS/BACT standards creep into manufacturing sectors
  - **Greenhouse Gases:** First proposals under NSPS—who will be first?
  - **NAAQS:** Reduced standards + strict implementation = backdoor regulation
  - **Sectors:** Roll out new sector-wide rulemakings combining NSPS/NESHAPs

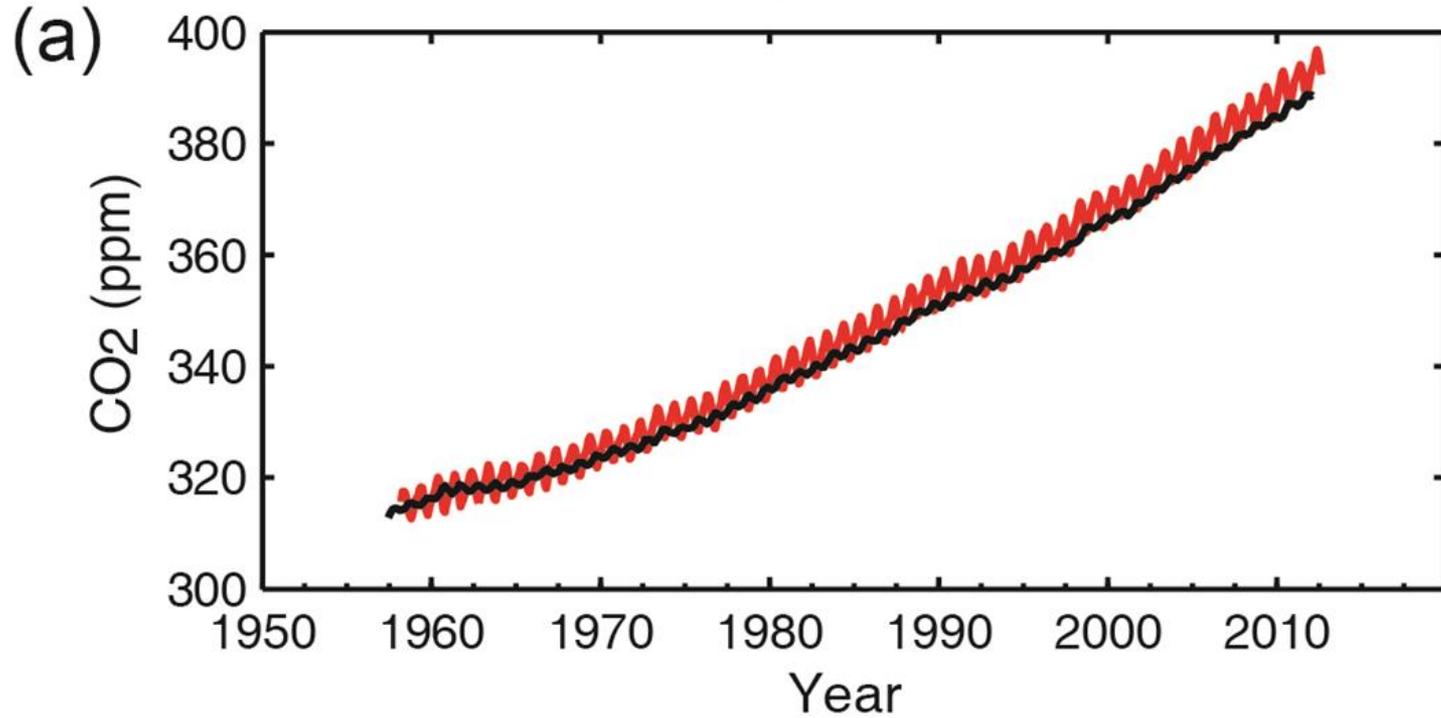


(b) Observed change in average surface temperature 1901–2012





## Atmospheric CO<sub>2</sub>



## Surface Ocean CO<sub>2</sub> and pH

