Global Warming Vs. Climate Change:
Comparing Bush & the Kyoto Protocol Discourses

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The Kyoto Protocol: international treaty on global warming, as an amendment to the United Nations Framework Convention on Climate Change (UNFCCC).

The developed countries commit themselves to reducing their collective emissions of six key greenhouse gases by at least 5%.

141 countries have ratified the agreement.

Estimated to reduce average global temp. between 0.02°C & 0.28°C by 2050.
History

1972: 1st Earth Summit in Stockholm: Current global environmental issues discussed, decided to meet every 10 yrs.

1988: International Panel on Climate Change (IPCC) was started by the UN: Brought together scientists from the world's governments to discuss whether the world was warming or cooling.

1990: IPCC releases its 1st report: It said it had reason to believe that the planet was warming, and that human activity was causing it.

1992: 2nd official Earth Summit in Rio de Janeiro, Brazil: Largest gathering of world leaders ever and created the UNFCCC, also known as the Rio Convention.

1997: COP III in Kyoto, Japan: Where the protocol began. After reviewing the original targets of the Rio Convention and finding them to be too weak, the countries came up with new targets.
1998: Conference of the Parties IV, Buenos Aires, Argentina: The Buenos Aires Plan of Action was developed to decide how the Kyoto mechanism would be implemented.

2000: COP VI in The Hague, Netherlands: Meeting failed due to an inability to agree on "carbon sinks," a key demand of both Canada and US.

2001: COP VII in Bonn, Germany: 180 countries agreed to the rules for implementing the Kyoto Protocol, not US & Australia.

2004: November: Russia Ratifies the Kyoto Protocol: 55% of 1990 global greenhouse gas emissions min. reached so Protocol can go into effect.

2005: February: the Kyoto Protocol goes into effect.
HEAVY Epoch I influence to date:
- Top down decision making and enforcement.
- “Command-and-control regulation” with predominantly remedial actions.

Epoch II elements are also present:
- Non-developed countries aren’t forced to comply
- Emissions trading permitted

Epoch III: Can we get there?
Science behind global warming

The facts:
What is the greenhouse effect?

- Sunlight enters earth’s atmosphere, much of it reflected back by earth’s surface.
- Greenhouse gases act as shield, trapping sun’s energy and preventing it from leaving the atmosphere.
- Trapped sunlight causes earth’s surface and lower atmosphere temperatures to rise, changing weather and climate.
Changes in Greenhouse Gas Levels
What is changing?

- 1990’s was the warmest decade of the millennium
- 20th century was the warmest century of the millennium, with the global temperature rising by 1.4°F.
- At no point in the last 1,000 years has the earth's temperature changed as rapidly as it has in the 20th century.

![Global Temperature Changes (1880-2000)](chart)

Source: U.S. National Climate Data Center, 2001
What’s causing the changes?

- **Burning of fossil fuels** → creates CO₂

- Tropical deforestation → eliminates crucial carbon sinks

- Refrigeration and air conditioning machinery → creates CFC’s.

- Decomposition of waste, cattle farming → creates methane
What’s going to happen?

- The IPCC predicts that there will be an increase in temperature between 1.5-5.8°F by 2100.

- CO2 could double its pre-industrial levels by 2080.

- This warming could cause sea levels to rise up to 0.09-0.88 meters by the end of the century.

- Each 1° of global warming will shift temperature zones by about 100 miles.

- By 2100, greenhouse gases would be double what they are now, and could result in either a quadrupling or a greater increase in greenhouse gases since the pre-industrial era.
The American Pro Kyoto Discourse:

US Proponents for the Kyoto Protocol
Background

- **US Rejection of the Kyoto Protocol in 2001**
- Many businesses and states have started to take their own initiative in the reduction of GHG emissions
- **US isolated for any international forum on global warming**
- **Climate Stewardship Act**
  - Attempt by Senators McCain and Lieberman to implement cap and trade on GHG emissions→ opposed by Bush
Basic Entities

- Serious problem/Immediate Action
- Scientific certainty
- International Cooperation
- Top-down controls
- Intrinsic value of nature
Assumptions About Natural Relationships

- Dependence on Nature
- Technology and industry are the problem
- Need strong regulations instituted by the government
- Delaying action will cause more problems in the future
Major Actors/Motivation

- Government Elites → NOT BUSH!
- Businesses/States
- Countries/International Forum
- US Responsibility
Metaphors/ Rhetorical Devices

- International Problem
- Team
- Doomsday
- Global Warming
- Cooperation
Similarities to Survivalist Discourse

- Limits
- Nature as its own entity
- Technology is the problem
- Top-down controls, strict
- Urgency, action now
- General Population
Similarities to Administrative Rationalism

- Power of Elites
- Based on expert science
- Top-down control
- Create legislation based on a “unified” opinion from the public
  Doesn’t take into account all stakeholders
Criticisms of Kyoto

- Unfair, allows developing countries to pollute more, i.e. China and India
- The effects of global warming are uncertain; limits are not scientifically proven
- Costly to American economy
- Other proposals are better for American economy
- Unfairly targets certain industry sectors
- Kyoto is flawed so why should the US be apart of it?
The Bush Administration Discourse
February 2002- Bush unveils plan to confront climate change
- Plans to reduce Greenhouse Gas Intensity of the US economy by 18% in 10 years.
- Creates Cabinet Committee
- Funding for climate change activities
- Tax incentives to reduce greenhouse gas emissions
- International Cooperation: multilateral and bilateral agreements
Basic Entities

- Industry
- Government Agencies
- Scientific Uncertainty
- Technology and Innovation
- (no natural entities, such as biodiversity, ecosystems, biosphere)
Assumptions about Natural Relationships

- Economic Growth $\rightarrow$ Environmental Progress
- Funding and research $\rightarrow$ Green Technologies
- Human need $\rightarrow$ Human Innovation
- Beneficial Competition
- (no dependence or interdependence on natural systems)
Major Actors and Motivations

- Industry and the Market
- Government
- Developing Countries
- (No motivations beyond economic interest)
- (No role for the government as a protector of non-economic goods)
- (Only scientific certainty can motivate action)
Key Metaphors and Rhetorical Devices

- Militaristic Use of Force
- Common sense
- Global Participation
- Climate Change
Similarities to the Promethean Discourse

- Technology
- Human innovation
- Natural resources as brute matter
- Power of the free market
- Rationalistic pursuit of self-interest
- No acknowledgement of natural limits
Similarities to Economic Rationalism

- Reliance on the market
- Small emphasis on the role of the state
- Importance of competition
Criticisms

- Scientific uncertainty
- Economic impact
- Need for Regulatory not Voluntary Action
- Alienates global community
The Greenhouse Network
Discourse: Epoch III

- **Basic entities**: all stakeholders: community, state and market

- **Assumptions about natural relationships**: recognize a mutual dependence between humans and nature, both nature and human well-being recognized as having inherent value, technology and industry viewed as both positive and negative potential.

- **Major actors, motivations**: Community, state and market. Each has different motivations (market: self-interest, state: watchdog, communities: social, cultural values). Both “under-socialized” and “over-socialized” motivations driving individuals.

- **Metaphors, Rhetoric**: Greenhouse, Stern et al.’s “tree”, interconnectedness between nature and humans,
State

- State: establishes framework and objectives for emission reduction, provides positive and negative reinforcement

Example: State mandates that all coal industries must reduce emissions by 10% in 5 years.
If a whole industry goes over this limit, individual firms are taxed per ton, if companies reduce more than required, they are given financial rewards.
State funds creation of/ gives decision-making power to Greenhouse Gas Planning Organizations (GPO’s), as well as green technology development in Universities and businesses.
Market

- Industry leaders collaborate to reach consensus on a mechanism to achieve state objectives, incentives provided by state cause willing cooperation:
  - Example: Coal industry decides to implement a ‘cap and trade’ market to comply with state’s requirements
  - Industries use marketing, public relations to advertise their progressive green efforts to appeal to customers.
  - “Survival of the Fittest” will weed out industries that fail to comply with State’s mandates (taxation, financial loss)
  - Growth in green sector gives US a comparative advantage with other countries and creates desirable job opportunities.
Community

- Community: given responsibility of enacting local goals via trial and error as well as democratic pragmatism, in particular, promoting greener techniques in housing and transportation
- Example: State gives GPOs money to implement green solutions, i.e., solar power initiative. This success will spur similar initiatives in other communities
- Zoning for green buildings, parking for smart cars, buying clubs for green products
- Real world example: Pittsburgh.
Networks

• Networks: local organizations, (GROs, NGOs) given power from community, legitimization from state, strengthen social capital within community
• Example: Same as previous example (GPOs)
• Government agency that provides network for unemployed to access new jobs in the green sector
• Promote successful local initiatives in other communities, ‘learning’ between communities.
The Greenhouse Network

State
- Determines Industry Thresholds
- Provides Research Funding
- Determines Compliance Mechanism
- Establishes GPOs
- Provides Funding for New Initiatives
- Tax Credits for Renewable Energy
- Develops and Tests New Policy Initiatives for the Transportation and Building Sector

Market
- Provides New Jobs
- Creates New Green Technologies
- Realizes Economies of Scale

Community
- GPOs Acting as Buying Groups Exert Market Influence
- Greater Demand for Green Technologies
Questions

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