I. Environment (1)

A. Land

1. loss of productive land

a. top soil: 24-26 billion tons

b. desertified

2. Practices

a. monocrop farming

b. overgrazing

c. farming marginal land

3. Social problem

a. food production

b. migrant populations

B. Salt and fresh water ecosystems

1. pollution

a. ocean

i. dead zones

ii. corral reefs: bleaching

b. fresh water (aquifers)

2. Practices

a. chemical pollution: pesticides, herbicides

b. factory farming

3. Social problems:

a. food production

b. clean water1 billion (est 2 billion)

C. Forests

1. cutting forests

a. 1/2 lost since 1960

b. TW rain forests 2020

2. Practices

a. logging

b. grazing cattle

c. debt

3. Social problems:

a. natural disasters,

b. global warming

c. species extinction

D. Species extinction

1. environment problem: 1000x background rate

2. Practices: habitat destruction

3. Social problems

II. Environment (2)

A. Chemical Pollution

1. environment

a. 80,000 / 20%

b. 500 million tons per year (2.5 billion lbs toxic and hazardous),

c. 1500 (12,000) Superfund sites

d. US Military

i. 64 million tons mustard and nerve gas

ii. 400,00 chemical bombs

2. Practice

a. chemicals in everything

b. subsidizing: pesticides, fertilizers

3. Social problems:

a. health: communities, workers, consumers

b. targets for terrorists

B. Nuclear Pollution

1. Environmental problems

a. 80,000 tons of high level nuclear waste

b. 100 million gallons of high level liquid nuclear waste

c. low level waste: train around the world

d. US military: “sacrifice zones”

2. Practices

a. nuclear power

b. nuclear weapons

5. Social problem:

a. health

b. terrorist targets

C. Solid Waste

1. E-waste

a. computers 70 million in landfills

b. 2008: 500 million obsolete monitors

2. Animal Waste

a. two feedlots in CO 100,000

i. each cow : 50lbs of urine an feces per day

ii. more waste than Denver, Boston, Atlanta, and

St. Louis together.

b. Not treated but dumped into lagoons

3. Solid Waste

a. America is #1: 232 million tons

b. trend: comparison

4. Social practices

a. technology

b. factory farming

c. hyper/throwaway consumption

5. social problems

a. human health

b. clean water

c. TW workers

III. Environment and Bush Administration

A. Policies and Regulation

1. Revised, eliminated, “clarified”, or attempted to eliminate

400 environmental regulations

a. “revise” Clean Air Act

b. “clarify” Clean Water Act

c. Withdrew arsenic in drinking water standard

d. Shifted cost of Superfund cleanup from polluters to taxpayers

e. Eliminated federal funds for environmental education in public

schools

f. “Clarify” eliminate Toxic Release Inventory

g. California Fuel Efficiency Regulations illegal

2. Regulatory Appointments

a. Department of Agriculture- meat packing and factory farming

b. Department of Interior-mining and logging industry

c. EPA-chemical, oil, power

B. No global warming

IV. Environment (4)

A. Human induced global warming

1. melting mountain glaciers, polar ice cap

2. rising air temperature

3. rising ocean temperature (corral reefs)

4. rising ocean

5. catastrophic climate events

6. more and more intense storms

7. loss of species

B. Social Problems

a. hunger

b. displacement of populations

c. cost $ storm damage

C. Social causes: greenhouse gases

1. auto industry: car and truck fuel economy lowest since 1980

(Ford Excursion: 7,600 lbs, 12.5 miles to gallon, seats 9 and 134 tons of CO2)

2. fossil fuel industry: coal, gas, oil

3. factory farming

4. US: 5% of world population 25%-33% of greenhouse gases

V. Environmental Problems (3)Toxic Sludge (aka --it): What happens to it?

A. 28 million lbs per year

B. It is mixed with: 60,000 toxic substances (97%-99% contaminated)

1. Pesticides

2. industrial chemicals

3. heavy metals

4. bacteria, viruses, worms fungi

5. radioactive contamination

C. Disposal

1. can’t burn it

2. can’t dump it in landfills

3. can’t ocean dump it

D. NYC:

1. give it to poor town Sierra Blanco

2. Texas EPA: its fine!

3. TV Nation: sued

E. EPA

1. rename it: biosolids

2. fertilizer

VI. Safety nuclear power plants

A. Claim

1. The external containment structure of a nuclear power plant would

protect against an attack by a 747.

a. walls thick

b. fissile material is underground

2. Snipers protect San Onofre from terrorist ground assault.

B. Support: claim #1

1. Report: “structures housing reactor fuel at U.S. nuclear power plants

would protect against a release of radiation even if struck by a large

commercial jet liner. (simulation was 767)

2. NRC chairman: “no significant consequence for the public if a 747

laid with fuel breached the containment of a nuclear plant--because

“America will deliver the necessary response to protect the public health.”

C. Questions: Bulletin of Atomic Scientists

1. Report

a. Nuclear Energy Institute: entire report not released because

of security considerations.’

b. funded by Electric Power Research Institute a trade group

for the nuclear industry

c. simulation

i. 767 going half the speed of the ones that struck

WTC

ii. walls four feet thicker

iii. three indirect hits, not a direct hit

d. didn’t deal with spent fuel, stored in pools on the sight

e. ignores another study done in Germany that concludes the

opposite

2. underground

a. spent fuel

b. core: below ground level

3. snipers vs attackers

a. NRC: Operational Safeguard Response Evaluation

i. mock attackers cause enough damage for meltdown

50% of time

ii. even though reactor operators given 6 months notice

iii. stopped program prior to 9-11

b. since 9-11

i. NRC: new security is secret

ii. snipers?

4. sabotage: unescorted clearance

D. Research Reactors at Universities

1. Primetime 2005

2. open doors, few security checks, unauthorized guided tours,

vehicles close to reactors

E. Important

1. nuclear industry

a. no new reactors: Chernobyl, Three Mile Island

b. Cheney Energy Report

c. terrorism

2. social control

III. Everyday life: computers, SUVs, and meat

A. E-waste: Computers

1. 70 million in landfills

2. heavy metals: lead (350 million lbs), chromium, cadmium

3. By 2007 500 obsolete monitors: phosphorous and lead

B. SUVs

2. SUVs: 30 % more CO2 and 75% more nitrogen oxides than cars

3. Proportionately more fatalities when SUV and car crash

4. Fuel economy for both cars and trucks lowest since 1980.

C. Meat

1. In US 70% of grain diverted to feed livestock.

2. groundwater pollution from factory farming: two feedlots in

CO 100,000 each cow produces 50lbs of urine and feces per day

3. Same lots produce more waste than Denver, Boston, Atlanta, and

St. Louis together. Not treated but dumped into lagoons

4. demand for meat=drives agriculture=cutting down rainforest

D. Corporate Media and Bush Administration

1. Fox News: “Global Warming: Fact or Fiction”

2. WSJ: “Global Warming a Myth”

3. 3/5 C-Span: “Global Warming and Other Eco-Myths”

4. Bush: No global warming, well maybe, need more evidence

5. Administration Policy: Kyoto Agreement would hurt economy

6. Cheney Energy Task Force: 1000 new coal

:

“The Debate”

1992 Union of Concerned Scientists 1600 scientists

1993 Earth Summit

1993 World Watch Institute

1995 Intergovernmental Panel on

Climate Change

1997 UN Report updating the

Earth Summit

1998 US Geophysical Union

35,000

1997 Kyoto Agreement

1999 National Aeronautics and

Space Administration

2000 National Academies of Science

2001IPCC

2002 Bush’s own EPA

2004 US Military: Department of Defense

2004 Report: Nations Bordering Arctic

Lastest IPCC

All industrial countries (except)

Global Climate Coalition

Information Council for the Environment

The Coalition for Vehicle Choice

The Coalition for Vehicle Choice

The Advancement of Sound Science Coalition

The Leipzig Declaration

Oregon Petition

John Coleman

F.It’s a “myth”

1. Global Climate Coalition

a. “front group” created by PR firm

b.$63 million from oil and auto

2. Information Council for the Environment

a. think tank: “experts”

b. funded by coal, oil, and power industries

c. all “experts”

i. have conflict of interest

ii. do no research

iii. do not publish in scientific journals

d. “experts” for corporate media and testify before

Congress

3. The Coalition for Vehicle Choice

a. “phony” grassroots organization

b. all funding from auto industry

c. oppose mpg limit on SUVs, Hummers, and

light trucks

4. The Advancement of Sound Science Coalition

a. trade group

b. chemical

5. Phony Petitions

a. Heidelberg Appeal: Not relevant

b. Leipzig Declaration

i. not signed by experts in the field

ii. riddled with conflicts of interest

c. Oregon Petition

i. fraudulent

ii. anyone can sign, even fictional characters

6. “The other side”:

a.fossil fuel companies, auto companies,

b. their “experts”,

c. public relations firms

d. trade groups

e. Bush White Council on Environmental Quality

Group I. In Common

A. Professional Organizations (members are scientists)

US Geophysical Union, American Meteorological Society,

American Association for Advancement of Science

B. Non-profit Public Interest

Union of Concerned Scientists, World Watch Institute

C. Government Agencies

Environmental Protection Agency, NASA, National Academy of

Scientists, D of D

D. Research/Studies

Scientific Peer Reviewed Journals: 928

Intergovernmental Panel Climate Control, Nations Bordering the

Arctic

E. International Agreements

Rio (1992), Kyoto (1197)

F. States and Countries

Group II:. In Common

A. The Global Climate Coalition, Information Council for the

Environment, The Advancement of Sound Science Coalition

B. U.S. Corporate Media

C. Natural Disaster

Conclusion:. There is no debate in the scientific community or the international community.