TOPIC #17

THE IPCC FINDINGS

Part 3:
The IPCC: Adaptations & Mitigations

So what do we do about it???

ADAPTATION & MITIGATION

POLICIES & POSSIBLE ACTIONS TO SLOW GLOBAL WARMING . . .

ADAPTATION (IPCC definition)

Initiatives and measures **to reduce the vulnerability** of natural and human systems against actual or expected *climate change effects.*

Various types of adaptation exist:

-- *anticipatory and reactive*

-- *private and public*

-- *autonomous* and *planned*

Examples are:

-- *raising river or coastal dikes,*

-- *the substitution* of more temperature-shock resistant plants for sensitive ones, etc.

Adaptation benefits
The avoided damage costs or the accrued benefits following the adoption and implementation of *adaptation measures.*

Adaptation costs
Costs of planning, preparing for, facilitating, and implementing *adaptation* measures, including transition costs.

Adaptive capacity
The whole of **capabilities, resources and institutions** of a country or *region* to implement effective *adaptation measures.*

Mitigation (IPCC definition)

Technological change and substitution that REDUCE resource inputs and emissions per unit of output.

Specifically:

Mitigation means implementing policies to:

-- reduce greenhouse gas emissions

-- enhance sinks.

Mitigative Capacity

This is a country's ability to reduce *anthropogenic greenhouse gas emissions* or to enhance natural *sinks*

--ABILITY *refers to skills, competencies,* fitness and proficiencies that a country has attained and depends on technology, institutions, wealth, equity, *infrastructure and information.*

Mitigative capacity is rooted in a country's sustainable development path.

Mitigation Potential

In the context of *climate change mitigation, the mitigation potential is the* amount of *mitigation that could be – but is not yet – realized over time.*

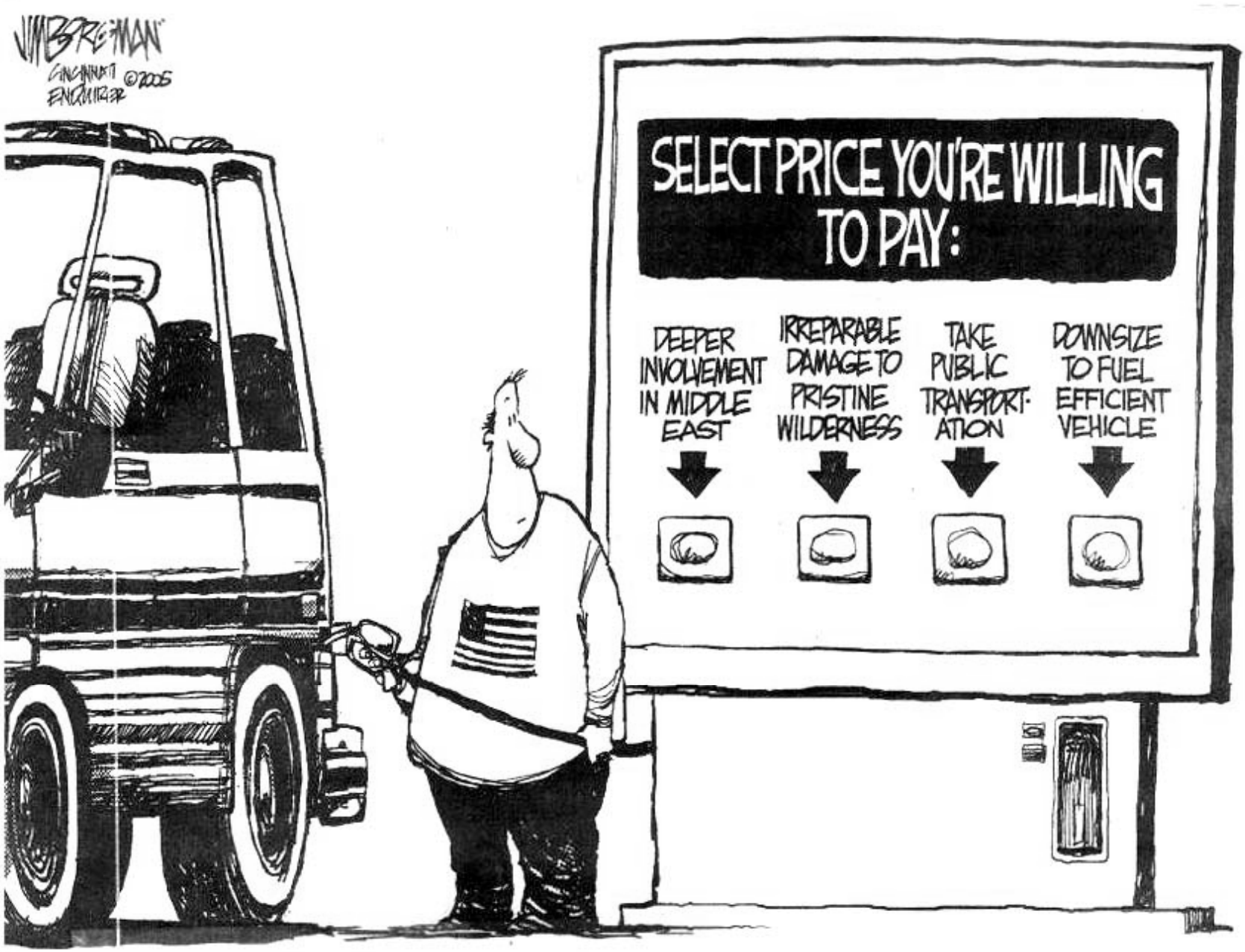
Market potential & Economic potential :

Studies of **market potential** can be used to inform policy makers about mitigation potential with existing policies and barriers, while studies of **economic potential** show what might be achieved if appropriate new and additional policies were put into place **to remove barriers and include social costs and benefits.**

-- The economic potential is therefore generally greater than the market potential.

Technical potential :

the amount by which it is possible to reduce greenhouse gas emissions or improve energy efficiency by implementing a technology or practice that has already been demonstrated


JIM BRENEMAN
CINCINNATI ENQUIRER ©2005
SELECT PRICE YOU'RE WILLING TO PAY:
DEEPER INVOLVEMENT IN MIDDLE EAST
IRREPARABLE DAMAGE TO PRISTINE WILDERNESS
TAKE PUBLIC TRANSPORT-ATION
DOWNSIZE TO FUEL EFFICIENT VEHICLE

Various Strategies for REDUCING GHG EMISSIONS:

Energy Conservation

Switch to Alternative Energy Sources

- Nuclear
- Wind & Tidal
- Geothermal
- Biomass-based fuels
- Solar

POLICY ADOPTIONS & OTHER ADAPTATION / MITIGATION SOLUTIONS:

1. CO_2 tax (gas-guzzler tax)
2. Imposition of direct governmental regulations (e.g. CAFE / Combined Automobile Fleet Emissions)
3. International agreements to impose restrictions on CO_2 emissions from fossil fuel burning (e.g. updated Kyoto Protocol – about to be addressed THIS MONTH in Copenhagen)
4. Halting tropical deforestation / encouraging reforestation
5. Drastic changes in lifestyle

Which one are you most willing to accept?
VOTE ON YOUR INDEX CARD!

1. Gas-guzzler tax
2. Direct government regulations - carbon tax
3. Direct government regulations with market mechanism, i.e. “cap and trade”
4. Kyoto-like / Copenhagen international agreement
5. Stop tropical deforestation / more reforestation
6. Drastic lifestyle changes

BUT FIRST . . .
WHAT THE HECK IS "CAP & TRADE"?

A SPECIAL PRESENTATION by the NATS 101 Honors Preceptors

Cap and Trade Presentation

By: NATS 101 Honors Preceptors

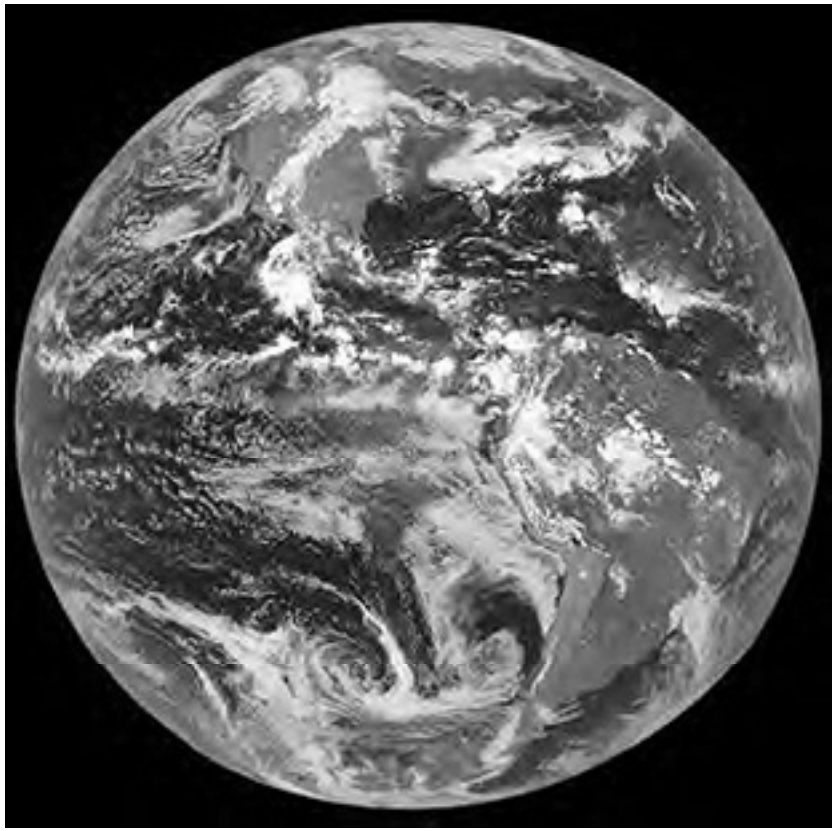
Problem

❖ The market, including companies and consumers, are not paying a price for emitting pollution while producing their products.

Problem

- Not taking into account the external environmental costs.

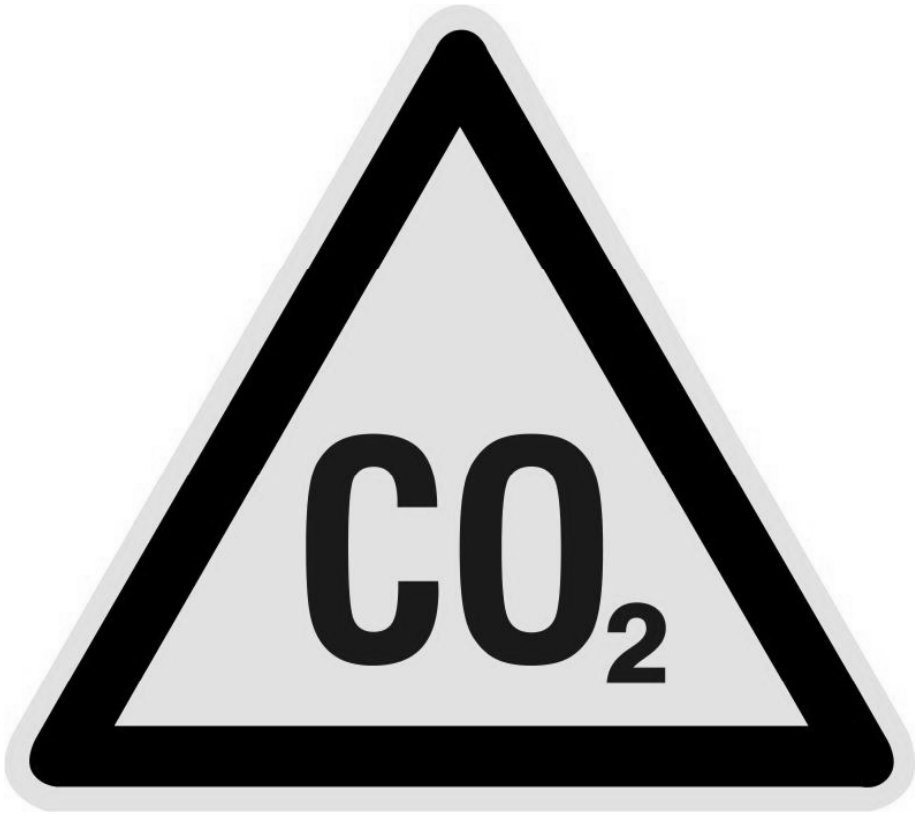
- Earth will end up paying the prices we don't pay.



Solution

- Create a market for carbon emissions through Cap & Trade

- Government decides a “cap” (limit on amount of carbon that can be emitted within a calendar year → each successive year had a lower cap)



Solution

- Companies coming in below the “cap” can “trade” (by selling) their permits to companies who are exceeding their caps- thus creating a market.

- The goal is to eliminate large polluters because over time it would either be too expensive to buy a permit instead of converting to greener technology.

CAP AND TRADE

For a follow up . . .
See Class Notes pp 137 – 138

Here's the source:

http://www.grist.org/article/cap-and-trade-through-musical-chairs/

And ANOTHER perspective from the creator of THE STORY OF STUFF:

http://storyofstuff.com/capandtrade/

WITH CRITIQUES . . . of course!
http://www.grist.org/article/cataloguing-the-errors-in-the-story-of-cap-and-trade/

http://www.grist.org/article/2009-12-01-annie-leonard-misses-the-mark-her-new-video-story-cap-and-trade/

Next Tuesday is our LAST CLASS:

THE GREAT DEBATE . . .
& CLIMATEGATE !

& HOPE
for the FUTURE!!

And now . . . .

MORE
DIRE PREDICTIONS
GROUP EXTRAVAGANZA
PRESENTATIONS!!

☼ G-6 DIRE PREDICTIONS PRESENTATIONS

Group 2 Forests- Tropical PPT

Group 3 Forests in South Asia / Indonesia

Group 10 War – Environmental Refugees

http://vimeo.com/4997847

Group 11 Pestilence & Death

http://www.youtube.com/watch?v=whhkqcaKqDE

Group 18 Waste

Group 9 Geoengineering – Solar & Aerosols

http://www.youtube.com/watch?v=lder1XlB5Lg

Group 13 Geoengineering Carbon Capture

★ G-6 DIRE PREDICTIONS PRESENTATIONS

Group 15 Agriculture & Fisheries

Group 5 Famine

http://www.youtube.com/watch?v=QoirQzZpNmI&feature=related

Group 1 War

Group 2 Waste

http://www.youtube.com/watch?v=V4q_iPyun9w

Group 16 Biofuels

Group 9 Water management Systems

Group 20 Finger in the Dike