

The Global Predicament (GP)

I am not interested
in persuading
people...we must
help people
persuade
themselves

Noam Chomsky

Facts
matter
even if we
do not like
them

Noam Chomsky

By the time I end this
presentation there
will be **6,000**
more cars on the
world's roads

...there is a better scientific
consensus on man-made
climate change than on any issue...

*“except maybe
Newton's second
law of dynamics $[F=ma]$ ”*

THE GLOBAL PREDICAMENT

GP =

**INCREASE IN GHGS &
MASSIVE REDUCTION IN BIODIVERSITY &
OVERPOPULATION &
RESOURCE DEPLETION RENEWABLES
(WATER, SOILS, FORESTS...) &
RESOURCE DEPLETION NON-RENEWABLES
(OIL, GAS, URANIUM...) &
INCREASE IN GROUND OZONE LEVELS &
DYSFUNCTIONAL GLOBAL FINANCIAL SYSTEM
THREAT OF PANDEMICS...**

Overview

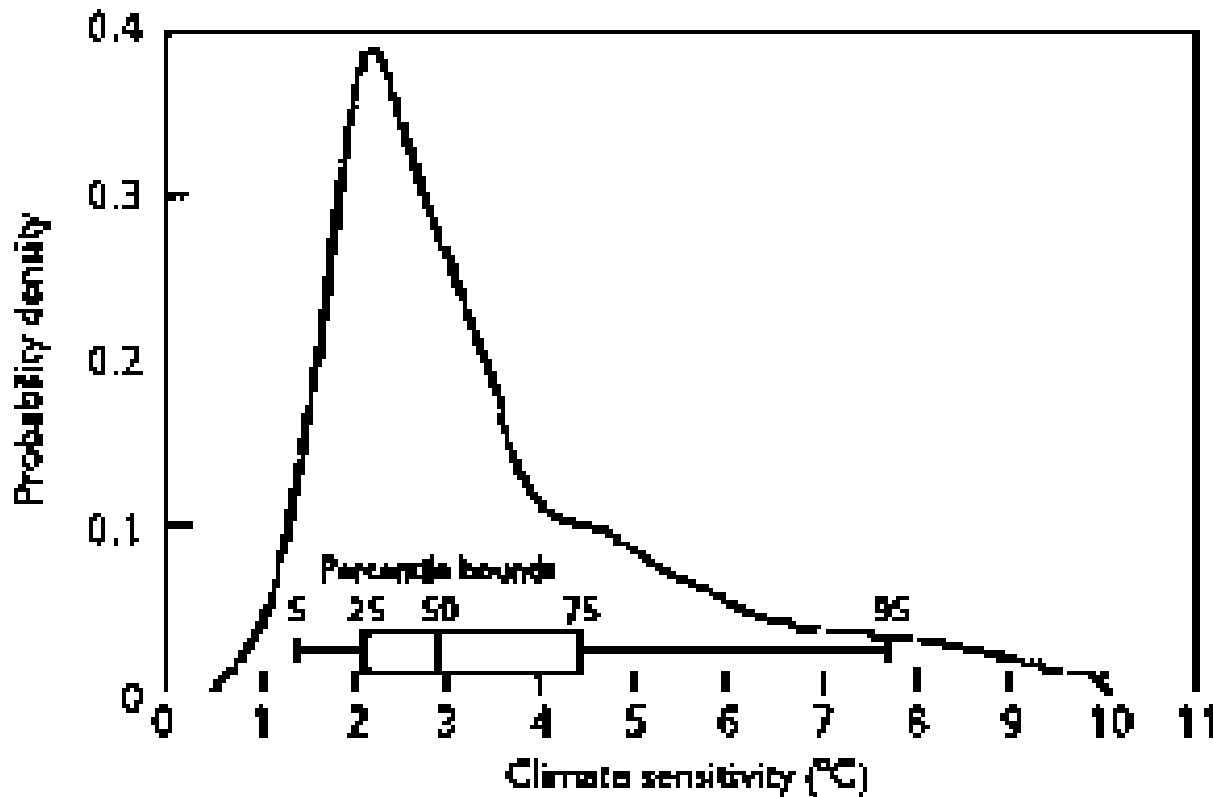
- How Much is too Much?
- Ebbing Waters
- Kyoto
- World Bank
- IPAT
- Free Trade
- Global Reconciliation Framework
- Some Conclusions & Predictions

• **Q&A?**

How Much
is too
Much?

How Much is too Much?

likelihood of change in equilibrium **global mean surface temperature** caused by doubling of atmospheric CO₂...shows a mean of 3.5 °C and a median of 2.9 °C.



IPCC (2001)...
reach **+2°C**
(**dangerous level**) if level of CO₂ rose to **450 ppmv**... (assuming “best-estimate” **climate sensitivity** of **3°C** for doubling CO₂)

How Much is too Much?

LATEST (CSIRO & NASA)...based on **paleoclimate** data (**slow** feedback

effects)... climate sensitivity is around **6°C** for doubled CO₂...

“at a long-term climate sensitivity of 6°C, we have **already passed** the widely accepted **+2°C** threshold of dangerous anthropogenic interference with the climate (around **350 ppmv CO_{2e}**) about **four decades ago**, and it therefore requires us to find the means to engineer a **rapid drawdown** of current atmospheric GHG.”

- Carbon Equity

Ebbing Waters

Ebbing Waters

- Global ice melt...Himalayan glaciers receding @ 30 miles p.a....
...in **20 years**...**80%** will have gone (500T km² -> 100T km²)
- given Indian rainfall patterns (drought in hot summer seasons)...**only** the **glaciers provide water**..

20% of humanity...in only 20-30 years...NO water...

Ebbing Waters - Land Use

- converted vast swaths of land into industrial and housing areas, parking lots and shopping malls... **clinically poisoning** waterways and soils in the process

*“a century ago the **North China Plain**—a region the size of New Mexico—was a healthy, thriving ecosystem with plentiful water accessible from shallow wells and pristine waterways meandering through a landscape spotted with swamps, natural springs and wetlands.*

*Today, it is an **arid, barren, impotent vista** consoled by beguiling duplicity of economic growth of 11 percent. And, as in many parts of modern China, farmland is disappearing fast”*

Examples: London & Tippecanoe County...2 of thousands...

Ebbing Waters - China

- 2002 - **25.93 mm ha** of **arable land...** (0.1 ha per capita)... **<1/2 world average** in 2000 (0.23 ha...from 0.38 ha in 1970)... **fall to 0.15 by 2050**
- 2002 - net reduction of arable land in China = 1.69 mm ha.
- Total area of **soil erosions = 3.56 mm km²** (37.1% total area of the country)...
 - **0.43** mm km² was **seriously** eroded;
 - **0.33** mm km² **very seriously** eroded; and
 - **0.38** mm km² **severely** eroded.

Ebbing Waters - China

1/3 of all **river water**, and vast sections of China's great lakes (Tai, Chao and Dianchi) have water rated **Grade V** (most degraded level), rendering it **unfit** for **industrial** or **agricultural** use.

...Liao & Hai River Basins > 60% water was

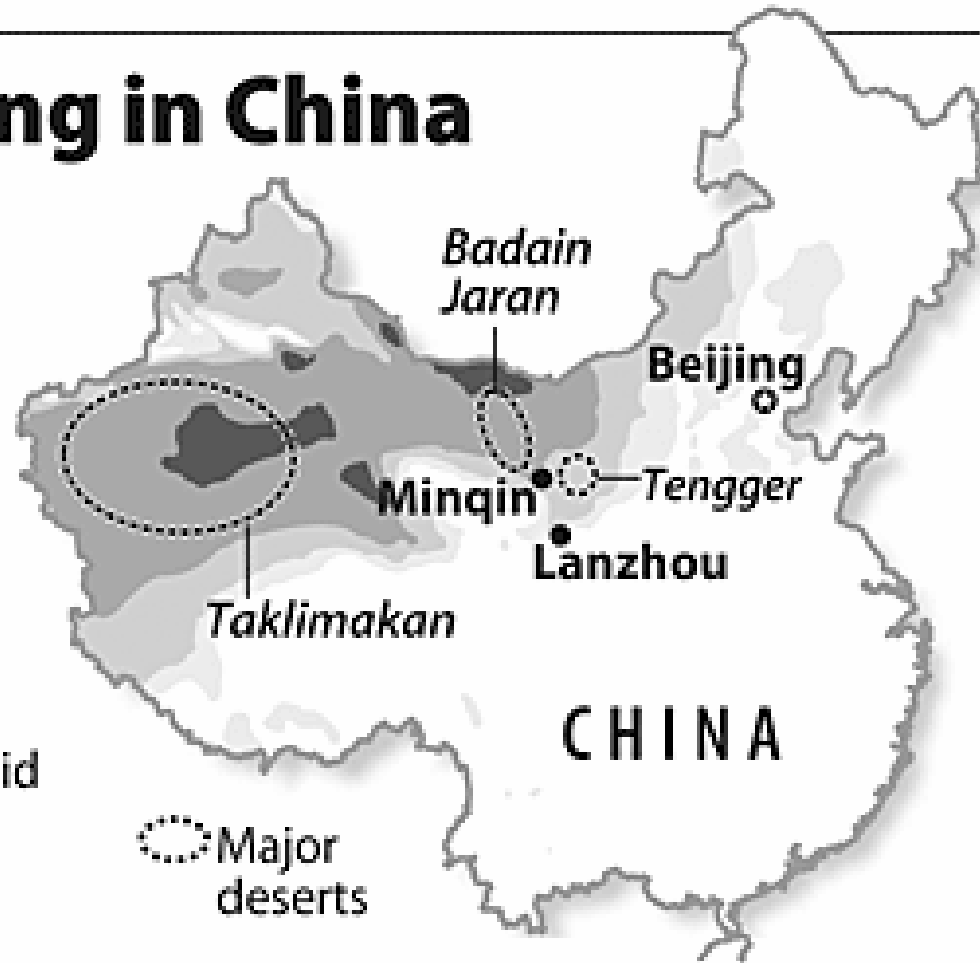
worse than Grade V.

Report On the State of the Environment In China 2002, URL:
<http://www.sepa.gov.cn/english/SOE/soechina2002/water.htm>

Ebbing Waters - China

Deserts expanding in China

The Chinese government is fighting to save once-fertile farmland from deserts that have expanded in the past decade at an annual rate of about 1,500 square miles.



Desertification-prone area

- | | |
|------------|---------------|
| Hyper arid | Dry, subhumid |
| Arid | Humid |
| Semiarid | |

Ebbing Waters - China

Close to 500 mil Chinese have access to less water than the population of Somalia

- In 2005... **51,000** pollution-triggered "**public disturbances**"—demonstrations or **riots of > 100 people** protesting the ecological carnage.

Ebbing Waters

- **redistribution of continental vapour flows**

brought about by **irrigation**...major climate impacts in regions such as the **mid-U.S., Amazon, Sahel, India, and Northern China.**

- ...**India's Monsoon Belt** (largest irrigated agricultural area in the world)...vapour fluxes are already up **7%** (**wet** season) and **55%** (**dry** season); **2/3** of change ascribed to irrigated agriculture...

- Local **land cover changes**...far reaching **impacts...altering general circulation of the atmosphere**

Ebbing Waters

When our **commodity politicians** and the financial “masters of the universe” descant resource depletion their focus is invariably on **oil** and the pending supply crisis. They

worry less about running out of potable of water;

*because water does not appear to lubricate the economy in their narrow definition—unless, of course, it can be packaged in ugly plastic bottles, shipped halfway around the world, artificially augmented from nothingness to a supreme image of vitality and stature allowing it to be sold to gullible consumers at **criminally exorbitant prices**. Water does not sustain the economy it **merely sustains***

life—an incidental, a negligible fact.

*They worry even less about running out of **fertile soil**. Why worry about feeding the world when we have **more pressing issues** to deal with; such as, building beach resorts, luxury hotels, office buildings, strip malls, interstate highways, and parking lots.*

*Of course, this breed of man has always been for sale to the highest bidder. However, it is only since the recent **coming together of Big Business and media on the backdrop of mesmerizing consumerism** that **politicians have become one more commodity** in the dream world of capitalist ideology.*

- Planet Titanic

Ebbing Waters

In **Africa** they say...

“we do not go to water ponds
merely to capture water, but
because friends and
dreams are there to
meet us”

Kyoto

KYOTO – Some Background

- **Corporate-Sponsored** Groups:
Business Roundtable, Global Climate Information Project, Coalition for Vehicle Choice, National Centre for Public Policy Research, Advancement of Sound Science Coalition, Information Council for the Environment and the US Electric Power Research Institute...
spent US\$ millions experts, conferences, books and advertisements associating **climate action with economic harm** to the US, including higher petrol prices.
- **NGO's**...Pew Centre for Climate Change & establishment think-tanks...Council on Foreign Relations...aided by the **faculties of many North American and British economics departments**... spread message media that **Kyoto targets were “unrealistic.”**

KYOTO - Alternatives...

Early **1990s...various proposals:**

1. phase out **subsidies** and **military** backing for fossil fuel extraction while **subsidizing energy conservation** and **non-carbon energy** and **supporting local movements against fossil fuel extraction, fossil-dependent industries, airport expansion** and so forth.
2. **develop/revive low- or non-carbon technologies** on a regional basis (increase **R&D**) => **DECENTRALISATION**
3. **carbon taxes** (reparations paid by past over-users to under-users) => **NET WORTH**
4. assign a restricted amount of **nontradable** property in the global carbon sinks to **each country...institute penalties for carbon sink theft**
5. **auction** space in the **global carbon dump** to private owners
6. create a **trust** to sell **rights in the dump to polluters** and **distribute revenue to communities or individuals...**

KYOTO

- Substantive **uncertainties** inherent in inventory listings
- **National emissions inventories are based primarily on economic statistics** to estimate GHGs entering and leaving the atmosphere.
- Although, they are **somewhat accurate** in estimating CO2 emissions from burning fossil fuels, they are...
...**totally inadequate**...other sources of CO2 (**deforestation** or **emissions of other GHGs**)
- Model & Parameter Uncertainties

KYOTO

- according to **EPA...**

*“the **uncertainty interval** associated with total **CO2 emissions**, which constitute about 84 percent of the total U.S. GHG emissions in 2005, ranges from **-2 to +5%** of total CO2 emissions estimated. The results indicate that the uncertainty associated with the inventory estimate of the **total N2O emissions** is the largest (**-16 to 24%**)...”*

KYOTO – “Market Fix” Solutions

Transcending the purported concern for how climate policies might affect **un**economic growth is the **desire to create new platforms of capital accumulation...**
the principal driver of climate policy, at both national & international levels

KYOTO

carbon trading provisions of the Kyoto Protocol...simply unbounded

article of faith...in the **dogma** of free market ideology and faith in the **gospel of globalisation...**

...these beliefs rest on an **ideological stance that is dangerously untested within the context of systems as complex as Earth's ecologies and carbon cycles**

KYOTO – “Technology Fix” Solutions

- Technological fixes...the “**inevitable**” result of **human ingenuity**
- Means to **circumvent and delay tedious debate** over continued fossil fuel consumption while helping to nurture **incremental** innovations in **existing technologies** (**COAL, NUCLEAR...**) that serve the ultimate purpose of **profit generation** and **capital accumulation** in dominant industries

KYOTO

...the framers undertook to **translate public concern about climate chaos** into **GHG emissions permit and credit prices** embedded in the **economic precept** that **Earth's carbon sink** is merely an **additional resource for human economic activity** and that the **right to pollute** is nothing other than one more **factor of production.**

KYOTO – Coaseian Logic

“The economic logic of dumping a load of toxic waste in the lowest wage country is impeccable, and we should face up to it...underpopulated countries in Africa are vastly underpolluted.”

World Bank (WB)

World Bank

- Halliburton...#1 energy client
- Enron, we all think they have collapsed, but they got a loan from the IDB recently
- US\$ 300 bln by 2025
- US\$ 40-50 bln p.a. for int. adaptation

World Bank – “Oil Aid”

- **80-90%** of energy-related lending from institutions such as WB, IFC, ADB...
=> **FF**...e.g. **US\$61.3 bln**...subsidize **oil/gas** industries (**2000-2006**)
 - US (**US\$12.3 bln**)...European Institutions (**US\$16.5 bln 2000-2006**)
- **EIB €23.7 bln** to global energy sector...**76% to FF** (primarily gas)
- **WB Group**...**largest** m-lateral provider “oil aid” (**US\$8 bln 2000-2006**)
 - 2006...energy sector commitments rose from US\$2.8 bln to US\$4.4 bln (**Oil/gas & power** sector **77%**)...
”**new renewables**” account for **5%...trend downward**
 - **> 80%** oil extraction projects since 1992...configured **specifically for export**...**NOT alleviation of energy poverty**
- International oil aid is in **addition** to est. **US\$150 to US\$250 bln** in **domestic** subsidies

World Bank – Funding Disaster

Example 1: India's **coal mining** region...**Orissa**...

- open pit coal mines...feed aluminum smelters (bought from US/Europe)... WB financed
- WB financed...**deregulation** of power sector in Orissa...**migration energy intensive industries** to Orissa...**DEMATERIALISATION SWINDLE**
- Fly ash (residue burning coal)... fly ash bricks replace environmentally damaging burnt clay bricks...turned into **C credits**...
...heavy metals (Cr, Mn, Pb, Zn, Cu, Ni and Co) and **radioactive** (uranium, thorium)...

World Bank – Funding Disaster

Example 2: Eucalyptus farms, Minas Gerais, **Brazil** (“Green Deserts”)

- Carbon sinks
- indigenous peoples displaced...make way for large **single-crop** plantations...
 - destroy **biodiversity**
 - suck up **ground water**
 - destroys **nutrients** in soil
 - pollute what remains with fertilizers/ pesticides
 - undermine national **food sovereignty**
- **Cellulose** factories (Aracruz)...2.4 mm tons bleached cellulose p.a... contaminating air/water...

“[The} toilet paper, diapers, newspapers, books, publication materials, and the packaging materials of the First World depend on our land, our water, our climate”

- Brother Gilvander Moreira, member of the Brazilian Catholic Church's Land Commission

World Bank

- **Development \$\$ funding FF** in Global South
- WB **not counting GHG emissions**
- Many **employees have no electricity**...get all the externalized costs but **none of the benefits**...
 - Kyoto does not regulate energy intensive industries migration to GS...even if it did, WTO could overrule it...
- C trading...wind (6%)...large hydro (12-15%)
- Most C credits to **HFC** (creating a market for their destruction...perverse incentives...like fly ash...instead of **IN**ternalising it into costs of coal...being turned into a **market**...
...informs the coal-fired power producer...**make even more money burning coal and here are your carbon credits to boot!!**

World Bank

WB's role has **conflicts of interest**...even **US treasury** has said that...
...how can the WB be **both** a carbon trader (**10% commissions**) and a **financier** of fossil fuels?

We are empowering the very institutions that have a pathetic track record on the commitments they have claimed to be making since the Rio summit in 1992...

World Bank

Equator Principle (EP)

- **90%** of private finance that looks to EP...signed onto WB guidelines that have no C accounting for FF investments...

Gleneagles **Clean Investment Energy Framework** (2005)

- **Wolfowitz**...**deletion** of **all references to climate chaos**...
- Remained **secret**...that document **began at 450 ppmv** but **ended at 1000**...
- It is BAU on steroids...agenda...nuclear, “clean” coal, large hydro...
- WB not even ONE billion dollars for **cleanER** energy...
- WB is world’s biggest carbon trader...gets up to **10% on trades**
- has a big carbon fund...getting ahead of the UN process...saying that they are **learning by doing**...

It is time for **ecological disarmament**...

- end “oil aid”
- need to count GHG emission accurately
- need to end export oriented model of development (too energy intensive...revenues reinvested in clean energy and improved land use)
- create international renewable energy agency (reject Gleneagles)

World Bank - Hypocrisy

*“gentlemen, thank you very much...for **bringing businesses, the Development Banks and governments together** over these 2 days to discuss how we can find solutions to the challenge of promoting **clean** energy. And I would like to pay **special tribute to... Paul Wolfowitz**, whose commitment made possible the establishment of this initiative at Gleneagles two years ago.”*

World Bank – Privatization of the Commons

- C trading...the **2nd privatization**...1st first was putting **pollution into the atmosphere**...

Now...**polluter is being paid!!!!!!**

- Full set of property rights to the atmosphere...
- **Enclosure of the commons** is a **deep crisis** that will lead to further degradation...
- **CDM** is all about **dirty industry**...
...the biggest recipients of credits are plants depleting the ozone layer (HFC-23)...

World Bank – The “Market” at Work

- Chemical plants used CDM profits to **ramp up production & cut price of HCFC 22...**
...**price out alternatives** that **don't deplete ozone** (CO2 and ammonia)
- Destroying **HFC 23 most lucrative source** of C credits
- Plants in China "**tuned**" to produce more **HFC 23...**
...**make 2x HFC 23** as proportion of actual end product refrigerant than those in rich countries which **can't** participate in the scheme...
...3% (HFC 23 vs. HCFC 22)...is **Kyoto Protocol maximum (coincidence???)** vs. 1.5%

World Bank

Real world **perversions of perverse subsidies**... US examples...

*“one government agency heavily subsidizes irrigation for crops that another agency has paid farmers **NOT** to grow...”*

*“The government subsidizes energy costs so that farmers can deplete aquifers to grow alfalfa to feed cows that make milk that is stored in warehouses as surplus cheese that does **not feed** the hungry.”*

- Planet Titanic

World Bank – It's True Commitment to Environment

- 1992 Earth Summit in Rio...
Global Environmental Facility (GEF)
created within WB...mandate to
compensate developing nations for
efforts to **protect** Earth's **climate/flora/
fauna...**

...financing of GEF = ?
= US\$10 mm **p.a.**

IPAT

IPAT

Key Definitions:

- **(UN) Economic Growth:**
increase in goods[bads]/services generated by economic activity
- **Environmental Degradation:**
*process which places such stresses on an ecosystem as to **reduce its capability for self-adjustment**...which, if continued can impose an **irreversible stress** on the system and cause it to collapse*

• - Barry Commoner

IPAT – Environmental Degradation (I)

- **Agencies** from **outside** the system (**cyclical** nature of the ecosystem)
- **Internal changes** in an ecosystem in **response to external stress** are **complex (non-linear)**...internal measures of internal states mostly **unknown**...fall back...measure of the impact on an ecosystem of **external degradative agents** as a measure/index of environmental quality
- Impact of a **given economic process** represented by amount agent external to the ecosystem intrudes upon it...**degrading self-regulation**...
- Humans constituent parts of ecosystems...but, only as far as we are **part** of a system...e.g. **food** acquired from **soil** which then receives **human waste**...
... urbanisation...

IPAT – Environmental Degradation (I)

KEY: environmental impacts (I) are...

NOT generated by **human biological activities**...

BUT by **human productive activities**...governed
by **3** fundamental economic processes...

1. **economic “gains”** derived from **biological productivity** of **ecosystems**...some component with "economic value" is **withdrawn** from system...crops, timber, fish...
2. **amount** of some component is **augmented** from **outside** (waste, accelerate systems **rate of turnover** [yield] i.e. fertilizer nitrogen in agriculture)
3. introduction of entirely **foreign** substance

IPAT – Environmental Degradation (I)

- Attempt to assess the **sources** of **(I)** in US...formulation... $I=PAT$
 - (P) = Population (year X)
 - (A) = Economic good **[bad]**/population
 - (T) = Pollutant/Economic good **[bad]**
- (I) increased **200-2,000%** from 1946 to '68

IPAT – 1st Findings (1968)

Consumption (Economic Good[Bad])

- **Increases...** food, fabric and clothing, household appliances, basic metals, building materials (i.e. steel, copper, brick...)
- **Reduction...** HP work animals, saponifiable fats, cotton fiber, wool fiber, lumber, milk, railroad HP, railroad freight...

Basic **pattern**:

- **no** significant **overall change** in per capita production of **basic life necessities**...however,
- natural products displaced by **synthetic ones**
- power conserving products by **power-consuming ones**
- reusable containers by **"disposable"** ones

IPAT – 1st Findings (1968)

Environmental Impact of “Growth”

- The **major driver** of (I) between 1946 and 1968...**new technology**...

Example **Agriculture**...

- **harvested** acreage (350 mm ha to 300 mm ha)...
- **inorganic** fertilizer (1 mm tons 1946 to 7 mm in 1968)...**X 7**

IPAT - Nitrogen Cycle

Displacement process:

1) Natural Cycle:

N available to plants from **organic N** (stored in **humus**)...broken down by **bacteria**...released as **inorganic** forms of **N** (eventually **nitrate**)...**nitrate** taken up by plant **roots**...reconverted to organic matter (i.e **protein**)..finally plant eaten by animals...returns **N** (not retained for growth...) to soil (waste)

2) Agriculture is a **drain** on natural cycle:

a) **N** is **removed** from system (crops or livestock)...if cycle **unbalanced** agriculture "**mines**" soil **N**...progressive depletion...

b) **Humus not only** a nutrient store...**polymeric** structure...responsible for the **porosity** of the **soil TO air**...air is **essential**, both as a source of N for **fixation** AND for **root metabolic** activity...

IPAT – 1st Findings (1968)

- Fertilizers...**at first...yields increase BUT** as **humus content decreases** plant **roots absorb less** and less **fertilizer**...huge amounts **leach** into soil...then into **surface waters** as **nitrate** (serious pollutant)...
 - overgrowth of **algae**...on their decay **destruct self-purifying aquatic cycle**...
 - **nitrite** (converted from nitrate by bacteria in the intestinal tract) combines w hemoglobin in blood converting it to methemoglobin (can not carry oxygen)
- **US Corn Belt**...massive use of inorganic N after WWII...
...between **1880 and end 1960s... 1/2** of **original soil organic N**
lost...soil **infertile**/poor yields...

Similar for:

- **pesticides**...or,
- increased use of **feedlots**...waste collected...not returned to soil...drains into surface waters...
- and **detergents, textiles, packaging, automotives**...

IPAT – Silent Spring

- **Rachel Carson, Silent Spring**—published in 1962
- **Monsanto** responded by conjuring up a **disturbing, apocalyptic spoof** titled, **Desolate Spring**...portrayed the dire vision of an America wasted not by pesticides but by insects:

“The bugs were everywhere. Unseen. Unheard. Unbelievably universal. ... On or under every square foot of land, every square yard, every acre, and county, and state and region in the entire sweep of the United States. In every home and barn and apartment house and chicken coop, and in their timbers and foundations and furnishings. Beneath the ground, beneath the waters, on and in limbs and twigs and stalks, under rocks, inside trees and animals and other insects — and yes, inside man.”

IPAT – Monsanto's Legacy

...DDT, Bovine Growth Hormone,
Agent Orange, Terminator Seeds

...Tens of millions
of dead, crippled, and ailing...

IPAT – 1st Findings (1968)

- (P) impact 12-20% of total (I)
- (A) factor 5% (40% for AUTOMOTIVE)
- **(T)** factor **40-90%** of total increases in (I)

Core Question: Is there a **functional connection** between tendency of a given “**productive**” activity to inflict an intense impact on the environment and the **role** of this activity in **economic growth?**

- **Displacement** far more “**profitable**” ...

(I) is long-**unpaid debt** to **Nature**...
our “**wealth**” is simply a **bubble** based on the **enlargement of this debt**...

IPAT – Technology

Technology is the
ONLY outlet for **Big Business** to
offer a Solution...whether it makes
sense or **not**...

I = **P** x **A** x **T**

IPAT –

Technology is the
ONLY outlet for **Big Business** to
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IPAT – Grand Emissions Intensity Trick

*“Canada’s New Government **understands that Canadians are concerned about the environment. We are taking immediate steps to reduce air pollution and the emissions of GHGs like CO2 that cause climate change. Our approach is concrete, practical, and will mean real improvements to our climate and environment.”***

Message sold to public:

...Canada to **reduce GHGs by 18% by 2010.**

IPAT – Grand Emissions Intensity Trick

- ...18% reduction—**not of carbon emissions**—but of **emissions intensity** by 2010...

...not total emissions but the emissions **per unit of GDP**

How was it sold in the media?

“The plan—entitled Turning the Corner—calls on Canada to reduce its current amount of greenhouse gas emissions by 150 million tonnes by 2020 and will require most industries in Canada to

reduce greenhouse gases by 18 percent by 2010.”

IPAT - NSSM 200

- **National Security Study Memorandum 200** (NSSM 200)..publ. Dec. 1974 (initiated by Nixon/Kissinger)...

"Implications of Worldwide Population Growth for U.S. Security and Overseas Interests."

- 1st major population conference (UN auspices, in Bucharest)...
...U.N. baseline...**1970 of 3.6 bln**...projections...**6 to 8 bln (2000)**...**12 bln (2075)**
- "special U.S. political and strategic interest"...
India, Brazil, Egypt, Nigeria, Indonesia, the Philippines, Bangladesh, Pakistan, Mexico, Thailand, Turkey, Ethiopia and **Colombia**

"the U.S. and its western allies have a vital interest in strategic materials, which have to be imported from less-developed countries"

- **NSSM 200 remains in force today!!!**

IPAT - NSSM 200

“Dr. Reimert Ravenholt, the head of USAID’s population office, made it clear that the Agency’s goal was to sterilize one quarter of all women (worldwide) **[of course, NOT in US]** and the World Bank explicitly indicated that population control was more important than reproductive freedom.”

- Susan Bucher, *What Doctors Don't Tell You About Tubal Ligation and Post Tubal Ligation Syndrome [PTLS]*, 2006

The **shortage of grain staples** along with the **first of two 1970s oil shocks** advanced a significant **turn in U.S. policy**...it was the ideal moment for a **new alliance between US-based agribusiness and the U.S. government** to lay a foundation for the **gene revolution**. **Kissinger** realized the **emerging, pivotal importance of US agricultural policy** and determined to seize control of it and devise a **means to use America's power as the major supplier of grain** to affect a **profound change in world food markets and food trade**. The **beneficiaries** would be **U.S. corporations** such as Cargill, Archer Daniels Midland (ADM)—the self-proclaimed 'Supermarket to the World"—and Continental Grain. Lifted by Kissinger's perverted notions of **food diplomacy** they would, for the very first time, establish a **global food market, that the U.S.—as the world's granary—could control** to further its **broader strategic interests**. Food would be the latest, most potent and most insidious **weapon of political expediency**; it would allow the U.S. to **"reward friends and punish enemies."** To achieve this, the **global food market** would be **restructured to favor corporate interests**. At the expense of small farmers, whose holdings would be transformed into factory farms, **agriculture** was to become an **agribusiness** dominated by a few corporate giants with incestuous ties to Washington.

- Planet Titanic

Free Trade

Free Trade...

- International agreements... **Basel Convention (1980)**
- **U.S...** 1 of 3 countries originally signed but failed to ratify BC... other two? **Afghanistan and Haiti!**
- The **reason?** Concerns about restraints on **trade**
- This form of **cost externalization** is hallmark of a “free trade” regime that singularly **benefits overdeveloped world**
- By allowing **toxic waste** to be disposed of wherever it **costs less** (today's prices and technologies)... **singularly promotes static**, rather than, dynamic efficiencies

Free Trade – A Different Type of Comparative Advantage

- **NAFTA, GATT/WTO**...simply **modern codifications** of **Ricardo's** *Principles of Political Economy and Taxation*
- **Except...** Ricardo argued **only** for "**free trade**"...
...signatories of present trade agreements...submit to **internal restrictions** (perverse subsidies, copyrights/patents etc...)
- **Instead** of enabling the **domination of ALL nations by ONE** (Britain for Ricardo)...
...facilitate the **domination** of the **vast majority of the world's population** by the **TNCs** of the **wealthiest nations...**
... TNCs real **architects** of the international agreements

Free Trade – Efficient Market Allocation (EMA) & Accountability Void

- **EMA**...condition...**FULL costs of production carried by producer** and **included** in **prices**...
- to **reduce** costs, corporations can (1) increase **efficiency** or (2) lower **standards**...
...most **choose to do the latter** and **claim the former**
- **“Free trade”**...=> **standards-lowering competition**...=> production to locations with **lowest standards of cost internalization...**

...costs “reduced” by **moving** costs **from corporate** ledger
to public ledger...=> far **less efficient** allocation of **finite global resources**
and to the **rapid destruction of natural capital**

- **Take Away: Profit**maximizing entities in a competitive environment are
always incentivised to **eX**ternalize costs...

WTO – Hallmark Behavior

The WTO works, **not** to “free” trade...but, to **selectively adjust barriers to trade** so that they **protect and enhance the interests of MNCs** (e.g. monopoly patents & trademarks for the pharmaceutical, biotechnology, entertainment, and agricultural industries), while **decreasing other barriers...**

Free Trade – Comparative Advantage, Specialization, & Dependency

- Nations produce **only** that in which are **relatively** most **efficient** (Portugal/Britain...wine/cloth)
- At most favorable...nations **increasingly specialize** in particular economic sectors (**ceteris paribus**)...nations producing **lower-value added products** (Portugal/wine) **never able to produce anything else...**
- ...vulnerable to exploitation/colonisation/domination...
- Economies producing **higher value-added** products and services... **continue** to “**modernize**”...benefit from the “**dynamic**” qualities of industrialization/ education/technology...basically produce all other industrial commodities over time...
- **Take Away**: **virtually impossible to lose paramount industrial and technological status...**increase **power/ wealth (\$\$\$\$)**
- Also, citizenry of specialized nations **robbed of the opportunity to choose from a diverse range of employment...**the chance to **develop their naturally diverse human talents** (free trade for all its rhetoric still does **not mean the free movement of people**)... **WHY NOT?**

WB - FOREST CARBON PARTNERSHIP FACILITY (FCPF)...

- **BioCarbon Fund** (2003), **FCPF** (2007, **US\$ 300 mm**)...large-scale **system of incentives** to reduce deforestation/ degradation
- Forest **not** part of **carbon offset** market (CDM)... (valuation/regulatory issues...)
- **Bali (COP-13)**...financial gains in deforestation activities analyzed (Southeast Asia, Central Africa and the Amazon Basin)...

<US\$5 p. mt CO₂ (mostly < US\$1)...

- “**Novel**” approach to **value** natural carbon sequestration services of tropical forest - > **opportunity costs** expansion of soybean, cattle ranching, logging...
- WHRC...> **90%** forest **maintenance opportunity costs** at **< US\$3**

Free Trade – WB & FCPF (1)

- **Calc of marginal opportunity costs (MOC) of red. C emissions for Brazilian Amazon...**
- WHRC...
 - 1)... Σ **MOC = US\$257 bln¹** (over 10 years)...
...save **47 bln mt C** @ cost **US\$5.47/mt C**
 - 2)...**US\$115 bln** compensation for **94%** of **“cheapest” forests** (mainly **cattle ranching**)...
(save **44 bln mt C** @ per mt cost of C of **US\$2.61**)

Free Trade – WB & FCPF (2)

“...overdeveloped world intends to compensate developing countries, only based upon the **currently exploitative prices** they are paid for their **increasingly valuable resources**.

There is **no intent** to provide compensation **on the basis of the benefits** the **protection** of these **resources** will convey.”

Free Trade – WB & FCPF (3)

- even @ **US\$50**/mt C (US\$13.64 per tonne of CO₂), **annual** cost of **100% reduction** in C emissions from **deforestation & degradation** (globally est. **1.6 Gton C** at present) =
only **US\$80 bln...**

...WB does not expect 100% reduction...

...predict **effective annual** costs =

US\$2-US\$25 bln...

- WB **values** curtailing **ALL** global C emissions (**8 GtC**)... **US\$400 bln...** < **1%** of **global GDP n 2006** (US\$ 48.3 trillion)...

Free Trade – WB & FCPF (4)

Proposal... **US\$1,000/mt CO₂** (not C)

...annual payment

US\$5.867 trillion dollars...

That would be **my** ask price...

for now!

Free Trade

- Persistent argument..

free trade = peace/“end of war”

- **...conquest theory of state...**

“Today’s peace is not a function of free trade...is a function of the acceptance of the ruling order of domination”

- Planet Titanic

Free Trade – What Does “Sustainable” Mean?

- Media/political and business discussions...**definition** of “**sustainable**” incorporates the element of **economic growth**
- But...“**sustainable**” & “**growth**”...as a compound term...represent an **inherent contradiction**...same...“**sustainable**” & “**development**”
- “**syntax of abridgment**”...like
“**Luxury Fall Out Shelters**” ...or... “**Clean Coal**” ...

to believe that the current economic circumstances and the existing societal arrangements might be sustained is, of itself, an unsustainable thought for most of the world’s people

Walter Benjamin

- The essence of this terminology is *not rooted in ecology, or justice*, but in **growth economics** and **power politics**...
- Example: “Vietnamese Businesses—Global Integration and Sustainable Development”

“We can't tell the environment to wait while we attend to the economy. The monolithic indifference of the environment to our little dilemmas is total. No, it is **We** who must **change our economy** until it is in harmony with Natural laws. And that means we must do everything we do **sustainably**, never losing sight of the fact that **our economy is**, as is often pointed out, **a wholly owned subsidiary of Nature**, and that **Nature can and will shut down our economy whenever it likes.**”

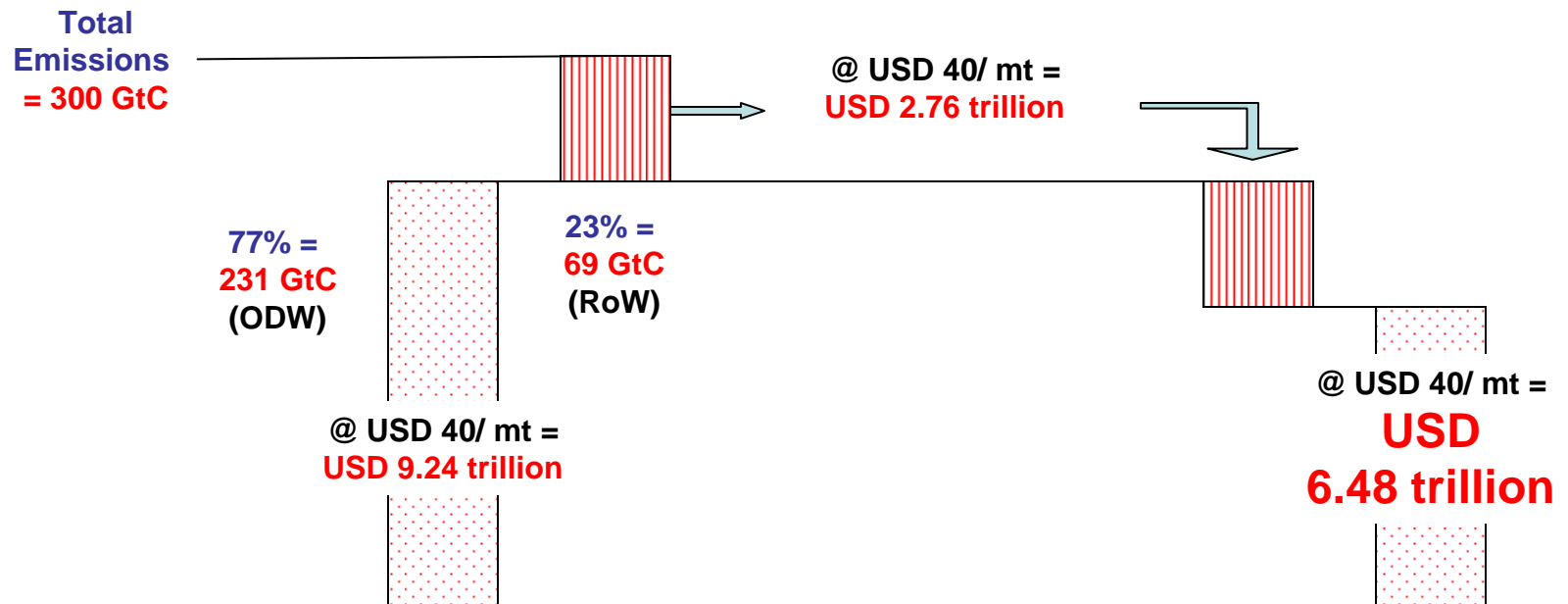
Global Reconciliation Framework (GRF)

GRF

- Bjorn Lomborg: **US\$37.632 trillion**
- Switch to renewables will fund itself:
+ US\$ X
- EC Commission (2005)...by 2100...
 - @550 ppmv (**US\$ 1 to 8 trillion**);
 - @450 ppmv (**US\$ 2.5 to 18 trillion**)
- George Monbiot (Heat): Global Growth @ **2-3%** -> payable!

GRF – Total Historic Emissions Since Industrialization & the Debt Burden of the **Overdeveloped World (ODW)**

1) VERY **Conservative** Model

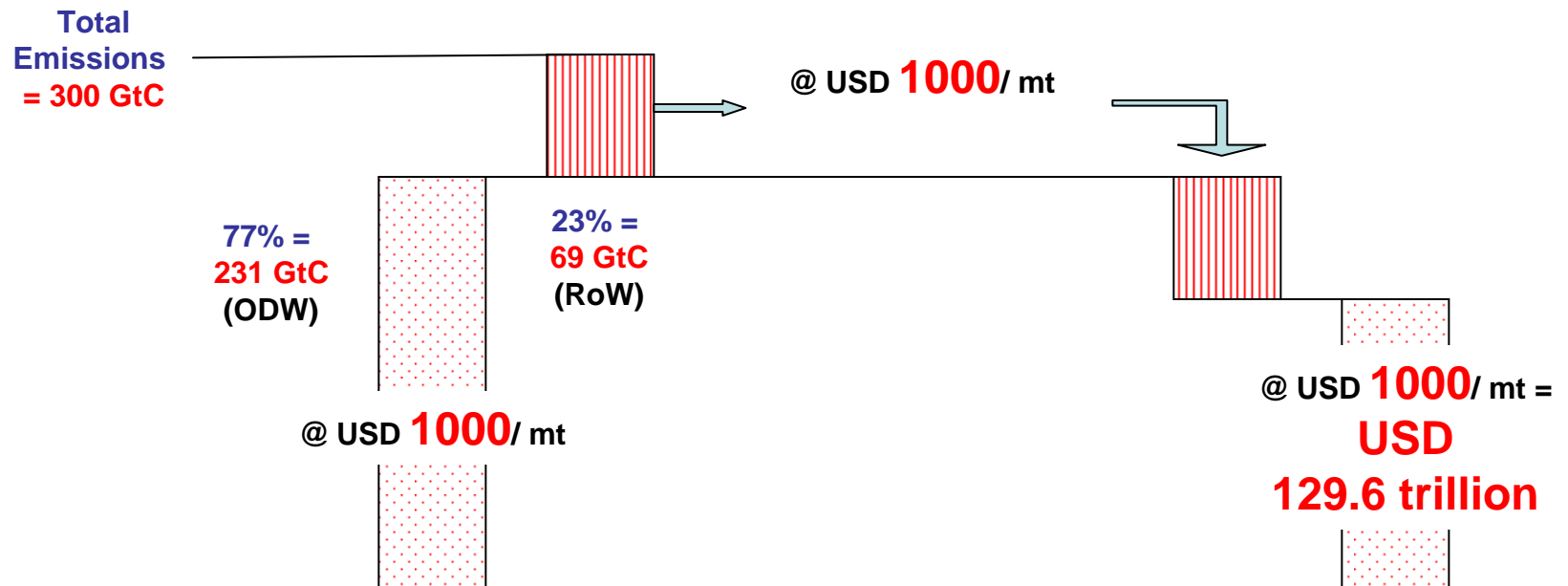


@ USD 50 per mt C => petrol price in US increases 15 cents p. g. => NO impact on driving patterns/habits

GRF – Total Historic Emissions Since Industrialization & the Debt Burden of the **Overdeveloped World (ODW)**

2) BETTER: MINIMUM per mt C of **USD 1,000** (although I prefer **NET WORTH TAX & RATIONING**)

@ USD 1,000 per mt C => USD 6.48 trillion => **USD 129.6 trillion**



GRF

*The preceding does **NOT** take into consideration...*

- **Other GHGs** (i.e. Methane, Nitrous Oxide)
- **Environmental Degradation**
 - **Loss of Biodiversity**
 - **Pollution...**

GRF – Even More History... US\$6.48 Trillion and Counting

*The preceding does **NOT** take into consideration...*

*Rape/murder of millions, **slavery** of millions, the **pillaging and***

*plundering of the **vast** natural resources of the majority of
Asia, Africa and Latin America by the...*

*Portuguese, **Spanish**, Dutch, Germans, French...*

***British, United (and not so
united) States...***

Since 1492

Conclusions and Predictions (given the Status Quo)

*There is NO Viable
Solution to GP Within
the Existing Global
Institutional &
Economic Structure*

Corporate **Hypocrisy**: One example of **millions...FedEx**

FedEX: "**committed** to the use of innovations and technologies to **minimize GHGs**."

Media-blitz –

- switch from **diesel** to **hybrid medium-duty** trucks...3,000 p.a... **30,000 trucks over 10 years**
- reduce its annual GHG emissions by around 250 thousand tons

A year later...FedEx awarded **Clean Air Excellence** prize (from EPA)

The FedEx **Reality?**

...**4 years on...<100 hybrid trucks**

(out of ***fleet of 70,000*** ground vehicles)

The **reason?** **COSTS!!!!!!**

...hybrid trucks around 75% more expensive to purchase

YET!!!!!!

...fuel savings from the hybrid vehicles would **pay for the cost difference over the 10-year write-off**

Note 1:...that FY FedEx declared record profits of US\$2 billion

Note 2: FedEx operates nearly 700 planes

Business
Can Not
Lead the
Way!

...when the environmental pressures become such that the very survival of people is jeopardized, do you see any change in the actions?

Not unless people react.

If power is left in the hands of transnational investors, the people will just die.

*It is too late
for any
reasonable
mitigation*

*Oil Prices will remain
volatile...*

*BUT will average
over US\$250 pb within 2012*

*Countries like Colombia will
not be able to acquire oil on
the international markets
within 2015*

On-Going Resource Wars for Sources of Energy and Water

*(Within 10-15 Years...
on a Major Scale)*

Did Americans really despise power politics as a corrupt game of princes?

By 1851, Secretary of State Daniel Webster crowed that America would eventually...

“command the oceans, both oceans, all the oceans.”

- George C. Herring, *From Colony to Superpower*

“The purpose of the US army is to make the world safe for American business and our cultural assault. Toward that end there will be a fair amount of killing.”

- Pentagon military analyst Ralph Peters

- > **70** military interventions since WWII
(**12-16 million killed**)
- > **240** since Thomas Jefferson

The privatization of **all** business in the Iraqi state with the possibility of **100% acquisition by foreigners** & **100% repatriation** of any profits...

- Directive 39 as presented by L.P. Bremer III

*The era of
globalisation will end
within 2015...
All economies will
begin to go local*

*The US
economy will
entirely
disintegrate
between 2015
and 2020*

Prediction:
Massive Social
Upheaval Driven by
Ecological Chaos

*(my alternative to Marx's notion
of the rising up of the masses)*

*Within this Century we will
see the Global
Population fall from now
6.7 bln to
Under 2 bln
(if we are lucky)*

*Our goals need to be to forge a real integration to **live well**. We say, live well, because we do **not aspire to live better than others**. We do not believe in the line of progress and **unlimited development at the cost of others and nature**. Live well is to think not only in terms of income per capita, but **cultural identity, community, harmony** between **ourselves and with Mother Earth**.*

Juan **Evo Morales** Ayma, President of Bolivia

"The survival value of intelligence is that it allows us to extinct a bad idea, before the idea extincts us"

Karl Popper

*We Have
a Choice!*