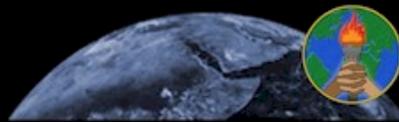


THREAT: Environmental Degradation

The Environment became a mainstream political issue only ten years after “environmentalist” was a pejorative term for fringe trouble-makers. Political environmentalism can be traced more than ten years, to Rachel Carson’s *Silent Spring* (1962) which after a long and bitter battle led to the restriction of DDT. Then the 1970s saw new terms such as “agent orange” in every newspaper and pictures on every television of wildlife habitats obliterated by oil spills. Public opinion shifted slightly. With the environment as a new factor – as lip-service or hard policy – environment debates were now not just academic. Profitability or oblivion suddenly depended on a percentage point in government emission/pollution standards. But even though the environment, like crime, is an issue there are no obvious *a priori* rules. At bottom there is always a Faustian test – a few billion in personal wealth today in exchange for the *chance* your grand-children will be homeless or be born limbless. Nothing is black or white. To further confuse things -- DDT remains one of the best weapons against the world’s greater killer – malaria.

Near-Term	Mid-Term	Long-Term
<p style="text-align: center;">Clarify the Now</p> <p>Most developed nations now factor environmental impacts into decision-making. Big-stakes cases hinge on contradictory evidence of each party’s expert witnesses and judgements often depend on an intellectual coin-toss, manipulation of public opinion, or corrupted officials. Only the creation of disinterested expert jurisdictions removes important environmental issues from the dread grasp of short-term political vision. Also, only public education (or opinion-leaders at least) can give a better grasp of <i>cost</i>. Discussion of cost in environmental debates is often deceitful, often on both sides.</p>	<p style="text-align: center;">Clarify the Future</p> <p>Rachel Carson was called a liar and alarmist by opponents but history proved she was a prophet. The same problem remains today – early warnings are always so early that well-financed inertial mass of vested interests are able to discount and ridicule them. If early warnings on <i>tobacco</i> or <i>asbestos</i> had been investigated, no-one smoking today would have started smoking, no-one dying of asbestos would be dying. Because government does not see beyond five years or the next election, only statutory agencies that outlive governments can be trusted to observe the public environmental interest into the conceivable future..</p>	<p style="text-align: center;">Globalise the Public Interest</p> <p>Initial excitement about globalization lost its innocence when nations realized that everyone really meant “my globalization: not yours”. But the underlying premise of globalization – interconnectedness of all nations is inescapably true. Nations will realize that environmental problems in one sovereign state are also eventually a problem for all. The rapid destruction of the Amazon is not Brazil’s problem but a factor of global climate. My Chernobyl is your Chernobyl. Governments and their electorates will soon realize all nations are in the same boat.</p>

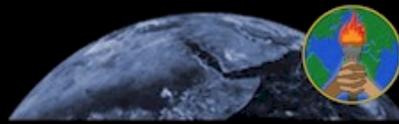
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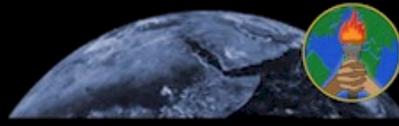
Hazard Level

Change Codes
↓ Deteriorated
• Steady
↑ Improved
↗ Alert

week-ended	See daily list of news items
2007 Jul 01	<ul style="list-style-type: none"> A quick look at land degradation -- loss of food-growing resources -- across the world, from Chad to China -- Around The Globe, Farmers Losing Ground. Just Climate Policy - a well-documented discussion by <i>Foreign Policy in Focus</i> with a emphasis on several "misconceptions". Canada, Mexico and the United States have introduced an interactive Google Earth mapping tool, which will expand public access to information on air pollutants. The European CO2 Test Centre in Mongstad Norway will inaugurate a pilot plant to test technologies for separation and storage of CO₂ from power plants on a commercial scale. Rising sea levels could rapidly disintegrate the Antarctic ice sheet -- " 13,000 to 7000 years ago, when sea levels rose by 100 metres, the ice sheet thinned by 200 to 350 metres rising waters lifted the buoyant ice sheet's edges off its rocky base".
2007 Jun 24	<ul style="list-style-type: none"> The [US] EPA has proposed a tighter permitted level on ground-level ozone, the main component of smog. A hazard multiplier -- the "harmful reciprocal relationship" between warming and environmental toxins -- Global Climate Change and Toxic Chemicals: A Potentially Lethal Combination. Expect more health problems from global warming -- "... we would expect a higher incidence of mortality and morbidity from vector borne diseases, infant and maternal mortality, cardio-respiratory related diseases in the next 50 years". "Dramatic changes to the environment in the Darfur region of Sudan helped lay the ground for today's conflict ... " -- just a tiny presage of countless environmental conflicts to come -- Climate change and the fight for resources 'will set world aflame'. Carbon-offset schemes 'inherently flawed' -- "The only long-term solution to climate change is to reduce carbon emissions" -- for instance, rushed "carbon-offset" tree plantings can cause severe problems for local water security. Another Google Earth project brings the previously impossible into the realm of the do-able; indigenous Brazilians will be able monitor road-making and illegal logging -- Indians, Google Earth to fight illegal logging in Brazil. [Comment: Google Earth is far from <i>real-time</i>, but is "good enough" for processes spanning months or years.]
2007 Jun 17	<ul style="list-style-type: none"> ↓ Researchers from the University of Victoria, BC say "We were really surprised at how quickly the ocean responded to temperature change" -- Global Warming Spurring Ocean Waves' Speed. 98% of orangutan habitat gone in next 15 years -- "illegal loggers operate in 37 of Indonesia's 41 national parks and that up to 88 percent of all Indonesian timber is illegally harvested." "Earth Mother is fighting back -- not only from the four winds but also from underneath" -- Native American tribes speak out about climate change. Al Gore says G8 has nothing to be proud of; G8 agreement on climate change a "disgrace" - Al Gore -- "a disgrace disguised as an achievement".



	<p>As smarter observers have said for some time, <i>Darfur's</i> genocide is about water and other resources and similar conflicts may become common -- Climate change behind Darfur killing: UN's Ban.</p> <p>"South Asia, and within it the region of Ganga, is among the regions facing greatest security risk resulting from climate change ... " -- 'Climate change will result in security threat'.</p>
<p>2007 Jun 10</p>	<p>↓ "The timber business is worth billions of dollars annually, and experts say few industries that size are as murky as the black market in wood"; Indonesia and Brazil are major sources, China is a major user -- Chinese demand drives global deforestation crisis.</p> <p>Most recent studies indicate the rise in CO₂ levels "<i>is much faster than even the most fossil-fuel intensive scenario developed by the IPCC during the 1990s</i>" -- Global Emission of CO₂ Rising Three Fold Than Anticipated. With US blanket rejection of Prime Minister Blair's proposal at G8 on CO₂ emissions, President Bush has denied Prime Minister Blair the only chance of a "<i>legacy</i>" that remained.</p> <p>Brazil says the West must put its money where its mouth is to stop the poor clearing forests for subsistence; "<i>only a tiny fraction of Europe's original forests remain, while Brazil has preserved more than 60%</i>" -- Brazil: Pay Poor to Preserve Forests.</p> <p>But a healthy pedantry enters the new science of carbon credits/deficits; Brazil has the world's fourth-largest CO₂ deficit, due to the destruction of the rain forest, and the production of methane in the immense marshy regions of the Amazon -- Brazil must improve G8 climate proposal - activists and Brazil/US Study Shows the Amazon Emits 1/4 of Planet's Methane. [Methane is 20 times more harmful than CO₂ as a greenhouse gas.]</p> <p>U.S. Cuts Back Climate Checks From Space -- "<i>Unfortunately, the recent loss of climate sensors ... places the overall climate program in serious jeopardy</i>" NOAA and NASA scientists told the White House.</p> <p>Worse than Chernobyl -- "<i>a decaying Russian nuclear dump inside the Arctic Circle is threatening to catch fire or explode, turning it into a "dirty bomb" that could impact the whole of northern Europe ...</i>" Also: Arctic Nuclear Dump Called Unstable -- "<i>We discover now that we are sitting on a powder keg, with a fuse that is burning, but we don't know how long that fuse is</i>". [Salt water has corroded enormous storage tanks.]</p>
<p>2007 Jun 03</p>	<ul style="list-style-type: none"> • Japan continues its age-old traditions of <i>cruelty, treachery and isolationism</i> and threatens to quit the Whaling Forum. <p>Another Brazilian Indian leader has been murdered in disputes over stolen indigenous land -- "<i>Aurino dos Santos was an active participant in the struggle of the Pataxó Hã-Hã-Hãe people for recovering their territory.</i>"</p> <p>Hoping to catch the ear of the upcoming G8, Oxfam says the West must be prepared to carry most of the estimated cost of \$50B/year to address greenhouse gases.</p>
<p>2007 May 27</p>	<p>↓ In strenuously opposing what the UK, Germany and others see as modest and do-able on carbon emissions control, the US now stands alone among the G8 -- US 'opposes' G8 climate proposals</p>
<p>2007 May 20</p>	<ul style="list-style-type: none"> • Megatons of African dust are falling on the Caribbean and Central America. [This natural process is exacerbated by past acts such as Firestone's clear-felling Liberia in the 1920s for rubber.] Separately: Asian dust plume might sway US climate-scientists -- "<i>this is why dust and soot getting into the higher layers is so important. This is what makes a local (problem) into a global problem.</i>" [The news item includes a link to imagery of the dust plume.] Large dams behind India's methane emissions; they are responsible for about <u>a fifth</u> of the country's total global warming -- remember METHANE is a greenhouse gas too. DoE has commenced a



carbon sequestration field test -- "the test is designed to evaluate the potential for geologic sequestration in mature **Illinois oil reservoirs** ..." [Comment: A profit motive in **CO₂** sequestration is **increased yield** from oil reserves by pumping the gas into diminishing reservoirs.]

The **Pan African Parliament** says many of *Africa's environmental problems* are a result, directly or indirectly, of **colonial exploitation** -- "This problem is generated by countries in the West.... We are asking the Western nations to help us tackle the impact of this problem." [The **Pan African Parliament** was established in 2004 as one of the nine organs of the **African Union**.]

Deadly fish virus reaches Wisconsin lake -- "I'm worried because, inevitably, it'll wipe out fish". "Tennessee is serving as a funnel to bring in **nuclear weapons and power waste** from around the country to disperse into the **landfills** and recycling without public knowledge" -- *U.S. Allows Radioactive Materials in Ordinary Landfills*. The **premature birth rate** in the **US** is rising and growing evidence suggests **pesticides** and other **environmental contaminants** are to blame.

The office of **DNI** has been forced to declare that a **NIE** on **climate change** will not divert **resources** from subjects such as **bin Laden** or **North Korea**. [Comment: There is still a sense from the *Right* that **climate change** is girly stuff; but, conversely, rapt attention to **bin Laden** and **North Korea** seems to have yielded little actionable intelligence.] A panel of **US senior retired military officers** consider that **climate change** is a "**threat multiplier**" and forecast a time when the number of **failed states** will increase rapidly -- *Military Panel Calls Warming a Major Threat*. The mayors of the world's **biggest cities** have met; "the fight to tackle climate change will be won or lost in cities" says Lord Mayor of **London**, Ken ("Red Ken") **Livingstone** -- *Big City Mayors Strategize to Beat Global Warming*.

2007 May 13

- **DNI** concurs with the **House** that a **National Intelligence Estimate** on **global climate change** is "appropriate", but insists on input by National Academy of Sciences and others.

Dirtiest 30 Power Plants Spew 10 Percent of Europe's Carbon -- some power stations are so bad that the room for **improvement** (by replacement) is a cause for hope. "It is **India's first land use and land use change and forestry project to sell emission reductions earned through carbon sequestration** ..." -- *World Bank to buy carbon credits from Indian farmers*. The **UN** articulates the misgivings of many -- rash action may bring a cure that is worse than the disease -- *U.N. raises possible negative impact of biofuels on environment, food security*. "It's time to move forward on **regulating greenhouse gases** and here's a **regulatory plan** that makes sense" -- *Global-Warming Myths*.

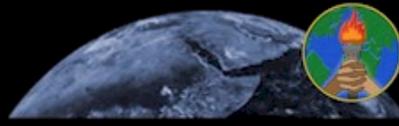
LEDs Emerge to Fight Fluorescents -- a good introduction to why no-one should bet everything on the low-energy but nasty **compact fluorescent bulb** -- the **LEDs** are coming.

Whatever is killing **bees** in the **US** is still a mystery and it's getting worse; "no honeybees equals no **fruit and vegetables**" -- possible reasons range from **global warming** to **cell-phone towers**

How surge in plankton may be the saviour of mankind -- "Tons of **powdered iron** will be poured into the **Pacific** to induce the growth of [**plankton**] blooms big enough to be seen from space" - the first **planet-scale** attack on **carbon emissions**.

2007 May 06

- 400 experts met at the **IPCC** third session in **Bangkok** to prepare a report on **climate change counter-measures**. **China, India, Brazil** insist "If the countries with high per capita emissions do not reduce their emissions significantly, it will be difficult to make substantial global progress ...". The theme of the **IPCC** third session report was *Beating global warming need not cost the earth* -- "keeping the rise in



temperatures to within 2 degrees Celsius would cost only 0.12 percent of annual gross domestic product". *The Arctic's ice cover is retreating more rapidly than estimated by any of the 18 computer models used by the IPCC in preparing its 2007 assessments.*

Prince Charles says that tackling *climate change* should be mounted like war against *Nazis* -- "*The crisis of climate change is far too urgent and discussion simply isn't enough.*" [More important even than a 'war on terror' perhaps.]

The **House Intelligence Committee** wants the House to request a *National Intelligence Estimate* on *climate change*. It's bad news for **US environmental satellites** -- "*budget cuts will mean that some existing satellites won't be replaced ... and some other planned satellite launches have been canceled.*" [Reign of Bush Fish and Wildlife Official Ends in Disgrace](#) -- [On 30 Oct 2006, **Public Daily Brief** said "*Julie MacDonald is an idiot.*" Say no more.]

Bacteria have been identified that can provide relatively quick *bioremediation in situ* to areas contaminated with highly toxic **PCBs**. [This is important, but equally important is the general approach -- bacteria working at a *molecular* level -- for other difficult problems such as the fixing of greenhouse gases.]

2007 Apr 29

↓ A rocket fuel chemical has been found in the **US food and water supply**; "*at sites in more than 25 states, perchlorate had leaked into the drinking water and soil. About 65% ... was attributed to the DoD and to NASA.*"

Texaco / Chevron still refuses to pay for the cleanup of billions of gallons of *toxic sludge* it intentionally dumped in **Ecuador** in pristine *rainforest* to cut costs.

The **Democrats** have owned the Environment for decades and all presidential contenders espoused broad agreement on a range of issues during the week, but lack of debate means none of the candidates have needed to display genuine *insight*. [Mercury globes it ain't.]

A new report "*Restoring America's Wildlife Legacy 2007*" details the nationwide impact of *funding shortfalls* and illustrates the deteriorating conditions at *national wildlife refuges*.

A group of **UK** scientists say of "*The Great Global Warming Swindle*" -- an anti-**Gore** film -- "*free speech does not extend to misleading the public by making factually inaccurate statements*".

Director of the **Trudeau Center for Peace and Conflict Studies** notes the **UN Security Council** now recognizes *Climate Change* as a *global security issue* -- [Terror in the Weather Forecast](#).

Biodiesel may worsen *global warming* relative to *petroleum diesel* -- "about two-thirds of greenhouse gas emissions from rapeseed biodiesel occur during the *farming*". [Again ... the *total* environmental impacts from cradle to grave must be used in considering and comparing processes.]

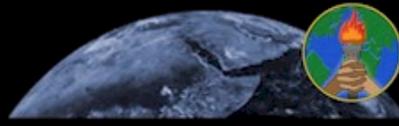
2007 Apr 22

↓ A new **Stanford** study says *ethanol*-based fuels could be damaging to human health - - "*there would likely be an increase in the number of respiratory-related deaths and hospitalizations.*"

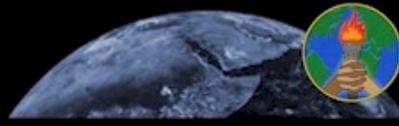
More details on the **Norwegian "Doomsday Vault"** that will store Earth's *seed diversity*; "*Many countries today are sitting there watching these seed collections die.*"-- [Global Effort to Save Endangered Crops Gets \\$37.5 Million Infusion](#).

An international *cities* conference in **Africa** concludes that *large* can be *smart* -- "*Large cities are the source of their problems and they are the source of the solutions to their problems.*"

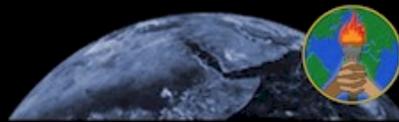
The 'gold rush' for *fine timbers* around the world, particularly *wood flooring*, is destroying endangered habitat at the hands of *illegal (or destructive) logging* -- "*shoppers are unwittingly playing a part in the destruction of one of the world's last*



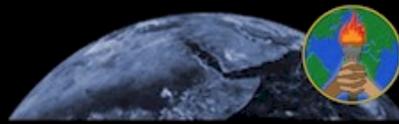
	<p><i>great wildlife habitats".</i></p> <p>The number of dead <i>seals</i> on Kazakhstan's Caspian coast has reached 435 - these deaths are not the only indication that the Caspian has been destroyed by human activity.</p>
<p>2007 Apr 15</p>	<p>↓ The EPA has relaxed air pollution rules for US ethanol producers -- the EPA is now an agent of a political <i>oil-substitution</i> policy, not <i>emission reduction</i>. [What is wrong with this picture?] The first US Renewable Fuel Standard has been promulgated -- "<i>the RFS program requires American refiners, blenders, and importers to use a minimum volume of renewable fuel each year between 2007 and 2012.</i>"</p> <p>Drug levels seeping into Lake Michigan are increasing -- "<i>the fish are constantly exposed to hormones.</i>" A study shows retired <i>cell phones</i> are growing into a mountain of a <i>hazardous waste; lead, nickel, antimony, zinc, copper ...</i> and more.</p> <p>A number of retired US generals have urged appreciation of <i>climate change</i> at a strategic level -- "<i>there will be conflicts over water resources, as well as increased instability resulting from rising sea levels and global warming-related refugees.</i>"</p> <p>Symbolically important, and perhaps of practical value, the UN Security Council is about to hold its first discussion of <i>Climate Change</i> as a <i>global security issue</i>.</p> <p>In the outlying jungles of Malaysia, <i>timber-men</i> are <i>poisoning farmers' crops</i> to get them to leave the area -- the big money in tropical forestry attracts <i>criminals</i>.</p> <p>Friends of the Earth International calls on the World Bank to halt funding for projects contributing to <i>climate change</i> -- World Bank Still Fuelling Climate Change.</p>
<p>2007 Apr 08</p>	<p>↓ The IPCC regional impact predictions are dire but the US excised "severe economic damage" from the <i>North America</i> forecast -- Bleakest warning issued on climate. On climate change initiatives, California Governor Schwarzenegger says the US response is "embarrassing" and "<i>we don't need Washington</i>". There has been no reversal of the rapid decline in <i>bee</i> populations in the US; the start of a significant <i>food crisis</i> -- "<i>40% of my 2,000 colonies are dead ... the greatest winter colony mortality in 30 years</i>". [Bees pollinate most food crops.] Lake Superior is <i>warming</i> quite quickly -- "<i>The lake's 'summer season' is now beginning about two weeks earlier than it did 27 years ago.</i>" Scientist from NASA, NOAA and elsewhere say the US south-west may return to "<i>dust bowl</i>" conditions.</p> <p>The Australian Treasury, unused to any public comment, says "<i>policy on water and climate change would have been far superior had the department's views been more influential.</i>" [Bureaucrat-speak for "We told you so".]</p> <p>All the attention to <i>carbon-dioxide</i> should not divert attention from <i>sulphur-dioxide</i>, the cause of <i>acid rain</i>, which is killing everything from the pyramids of Giza to the oceans -- Acidic oceans threatening sea life, UN panel says.</p> <p>Former next US president Al Gore has challenged <i>systems designers</i> who deal with the <i>presuppositions</i> coded into devices to get with the program -- "<i>Gore challenged designers to develop system architectures that have at aim for efficiency and conservation from the start.</i>"</p> <p>Further nails in the coffin of <i>palm oil</i> as a "biofuel" -- "<i>As rain forests are burned out to clear large tracts of land to plant palm trees, the burning releases enormous CO₂ emissions ...</i>"</p> <p>Poorer nations will bear the brunt of ill effects of <i>global warming</i> -- climate change is now a locomotive, <i>slowable</i> but not <i>stoppable</i> in the short term-- even more urgent efforts must now be made towards ADAPTATION.</p>
<p>2007 Apr 01</p>	<p>↓ Australia has offered to help curb <i>illegal logging</i> in Indonesia -- "<i>satellite imagery would be offered to help partner countries curb illegal logging.</i>"</p> <p>A good brief factual tutorial on <i>greenhouse gas levels</i> -- Carbon Dioxide and the</p>



	<p>Greenhouse Effect. An example of the rabid attacks on the Gore climate position -- "Everything that is wrong with this world is embodied in his porcine hulk."; Malthus = Hitler = Gore -- The New Environmentalist Eugenics: Al Gore's Green Genocide.</p>
<p>2007 Mar 26</p>	<p>↓ Antarctic melting may be speeding up -- "I feel that we're getting uncomfortably close to threshold" says an Australian Marine and Atmospheric Research scientist. Separately, it is feared melting in the Arctic Sea may trigger a climate change cascade. [It's not just <i>inexorable change</i> that is the threat; it's the possibility of suddenly triggering a rapid and <u>catastrophic avalanche of changes</u>.] A former World Bank chief economist says affluent countries could [should] pay poorer nations to keep forests -- "In the short term, up to \$15 billion extra a year should be set aside by richer nations to preserve forests ..." Indicating that the same message is now reaching every corner of the world, a Clean Energy exhibition was held in the Uzbek capital. With impeccable timing, the EPA is now being starved to death by budget cuts. Congress sees more evidence that the White House "tampered" with climate data -- the administration "made about 300 edits to the reports, <u>downplaying scientific certainty about the effects of climate change and minimizing the role of industry</u>". Former CIA director, John Deutch, in a report to the Trilateral Commission says the U.S. adopt a carbon emission control policy.</p>
<p>2007 Mar 19</p>	<ul style="list-style-type: none"> • Senior UK scientists advise accuracy and moderation in climate warning discussion; else the climate skeptics may ultimately win public opinion. The Kyoto concession that excluded "developing economies" such as China and India from emission reductions now seems short-sighted. Thailand is considering declaring an emergency over its smoke haze problem -- air quality in three provinces double the hazardous level is caused by farmers clearing land. Research in China shows that air pollution inhibits rainfall -- "on the haziest days, rainfall can be reduced by half." According to one review, the Prius outdoes the Hummer in environmental damage, when all inputs (such as nickel batteries) are taken into account -- when upstream and downstream impacts are included -- <i>all</i> INPUTS and <i>all</i> OUTPUTS -- "green" ain't always green. The Canadian government contributes \$100,000 to a microalgae CO₂ conversion demonstration project. Energy is never free -- "An all-out development of biofuel crops in ecologically sensitive southwestern China will almost certainly wreak havoc on the environment. The UK proposes "bold" climate-change legislation -- "the draft climate change bill would be the first legislation in an industrialized country to set such long-range goals". Experts warn that global warming brings increased risk of megafires -- "we're looking at least 100% increase in bushfire risk, and regionally substantially more than that." [In Australia, and elsewhere.]
<p>2007 Mar 12</p>	<ul style="list-style-type: none"> • Scientists in China say air pollution is inhibiting rainfall -- "on the haziest days, rainfall can be reduced by <u>half</u>." Elsewhere, scientists say that aerosols (nanoparticulates) produced by coal-fired processes around the Pacific [China] are, like CO₂, bad for the atmosphere and may be contributing to increasing intensity in Pacific storms. If more examples were necessary ... the effects of global warming have been observed on the ice-cap of Mount Everest. The EU says it has challenged the world to match its climate change mitigation plan which includes a 20% emission reduction target -- "we can say to the rest of the world, Europe is taking the lead. You should join us fighting climate change." Three UN agencies and 16 corporations such as HP, Philips have now teamed to



2007 Mar 05	<p><i>"harmonize approaches to electronic waste around the world".</i></p> <p>↓ Another major glacier -- Gangotri Glacier in India -- is shown to be shrinking rapidly (in glacial terms) threatening downstream populations with future lack of melt water.</p> <p>Some steps are being taken but most dead electronic equipment still ends up as eWaste in landfills or is shipped offshore to pollute the environment in poor countries. <i>Technology Review</i> from MIT discusses uses of methane which is second only to CO2 as a problematic greenhouse gas and at present is often allowed to escape-- A Practical Use for Waste Methane. The new field of "<i>computational chemistry</i>" has designed a molecule to crack fluorocarbons and prevent the "ozone hole" effect.</p> <p>The UN Secretary-General says climate change is as dangerous as war -- "<i>the danger posed by war to all of humanity ... is at least matched by the climate crisis and global warming.</i>" Expert scientists tell the UN that tens of billions are needed to combat global warming -- the challenge "to which civilization must rise" involves mitigation and adaptation and is the largest challenge in human history. "<i>Two starkly different futures diverge from this time forward.</i>" says a UN-sponsored expert group.</p> <p>Brazilian police arrested 18 people, including environmental protection agents, accused of allowing illegal logging in the Amazon rain forest. Kenyan Nobelist urges environmental conservation be not forgotten for the long-term common good.</p> <p>Former Next US President Al Gore will speak at the Sustainable Operations Summit -- the invitation-only event will bring together leaders from the nation's largest corporations, cities and states, universities, school districts and healthcare organizations. Although there are many life-and-death spending priorities in Africa, a The Inuit of northern Canada tell the 34-nation Inter-American Commission on Human Rights that US carbon emissions have violated their basic human rights.</p> <p>The governors of Arizona, California, New Mexico, Oregon and Washington state say they will develop regional targets related to climate change.</p>
2007 Feb 26	<p>↓ New Zealand's Prime Minister "implored" Japan to move a damaged whaling vessel from pristine Antarctic water before it causes damage -- Japan, the country they gave Pearl Harbor, unforgivable war-crimes, criminal lies about "scientific" motives in whaling, now shows it is callous environmental vandal.</p> <p>In 30 years Thailand has turned Bangkok from an icon of smog into a model for Asia's pollution-choked capitals, Beijing, Jakarta, New Delhi, Shanghai.</p> <p>Nine US states are suing the EPA over mercury emissions -- "<i>the states contend a rule issued by the EPA in December does not comply with the federal Clean Air Act.</i>" Australia plans to phase out incandescent light bulbs over the next three years to save energy. [<u>But with no regard to up/down-stream impacts.</u>] Converting to low-power light globes will save electricity but will disperse vast quantities of neurotoxic mercury when they are disposed of. [<i>Ecology is a science of <u>inputs</u> and <u>outputs</u>.</i>]</p> <p>EU officials agreed to cut carbon dioxide emissions 20% by 2020 -- "<i>But the EU's 27 nations are still to agree what each should do to meet a 20% target for the entire bloc ...</i>"</p> <p>Some observers think the US is nearing the tipping point on global warming -- "<i>The White House has recently been on the defensive ...</i>"</p>
2007 Feb 19	<p>↓ Climate scientists say that only a better understanding of clouds will give better models of climate change -- "<i>... it is becoming increasingly important to include the effects of aerosols on clouds ...</i>" [Aerosols are small, often nano-sized, particulates suspended in the atmosphere.] One of the other major unknowns is the over-turning of vast ocean water masses. China says that rising sea levels induced by global warming present "unimaginable challenges"-- "<i>The speed is astonishing,</i>" said Lu</p>



Xuedu, the deputy director of the environmental division of the *Ministry of Science and Technology*. The *glacier meltdown* is accelerating -- "the disappearance of glaciers will not only contribute to *rising sea levels*, but will also dramatically affect the millions of people who depend on them for *water*." Concentrations of *carbon dioxide*, the main greenhouse gas, has risen to 390 ppm from 388 a year ago.

Proving *wind energy* has come of age ... a cut-throat business battle between a **French** energy giant and **India's** largest wind power firm for a **German** wind energy company. A very green, perhaps prophetic, view of the future with considerations such as "Our small towns are waiting to be reinhabited" -- [Ten Ways to Prepare for the Post-Oil Society](#)

UNEP says the world needs tougher *toxic* trade rules -- the *Basel Convention* needs broadening and to get some teeth.

A second US court finds the **US Department of Agriculture** acted improperly in advancing certain **Monsanto genetically altered crops**. A *mystery disease* has been reported among *bees*, killing entire hives and putting a range of *crops* at risk. [Perhaps bees are the "canary in the coalmine".]

It's time to begin *adapting to climate change* -- *Christian Science Monitor* says "We spend all this effort trying to understand climate dynamics, but the major variables are the interactions within society and between society and climate."

Will the *Mega-Cities* collapse? -- **Worldwatch Institute** report: 50% of the world's population will be living in urban areas this year - cities like **Lagos, Nairobi, Dhaka** increasingly approach collapse.

2007 Feb 12

- A Texas **Baptist** Group is fighting the fast-tracking 18 new *coal-fired power stations* -- "This is cutting edge stuff for Baptists - even moderate Baptists." [Will the big issues assume more of a *moral values* component?]

The **US** will help **Vietnam** clean up some **Agent Orange** hotspots -- "millions more will be needed to pay for the damage caused by *dioxin* in Vietnam."

Sir Richard **Branson** and former Next President **Al Gore** announced a *prize* for the most innovative way of reducing *greenhouse gases* in the atmosphere -- "the Earth cannot wait 60 years."

The **Kyoto Protocol** is important but is seen as merely an *interim* measure, merely buying the planet 20 years -- "**South Africa, China and India** are sitting on *coal reserves* that could send all the West's efforts to combat climate change up in smoke."

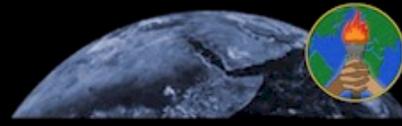
The UN Environment Programme (**UNEP**) will work with **Google-Earth** and others to produce demonstrative before-and-after images of *climate change*.

UK Prime Minister **Blair's** main idea for action on *climate change* is cooperative development of *carbon sequestration*, perhaps the only emergency action that is possible. French petro-giant **Total** and partners are starting a major *carbon sequestration* project may be a do-or-die for the technology.

The effects of " *censorship*" on *climate science* by the **Bush** administration are said to linger but some agencies are trying to redress the past -- "This revised policy should resolve most or all of the recent complaints by some **NOAA** scientists." The **US Senate Environment and Public Works Committee** attacks the **EPA** on a range of issues, saying it has gone "too long without meaningful oversight".

Higher than usual *rainfall* has caused an outbreak of *dengue* fever affecting more than 15,000 people in **Brazil** and neighboring areas. [The new weather patterns of climate change will bring new disease patterns.]

China's legacy to the world: cheap white-goods and biblical *pollution* -- [China's Filthiest Export](#) . China so far declines to accept *mandatory emissions* caps but says *developed countries* can do more.



2007 Feb 05

The EU is promulgating a range of offences for "**green crimes**" -- "*The heaviest sentence - at least 5 to 10 years of jail - will apply to "green crimes" committed intentionally that kill or seriously injure people.*" The **vehicle** industry in **Europe** is required to produce an 18% cut in **CO₂ emissions** -- "*Transport is the only sector in Europe that has shown dramatic increases in CO₂ emissions over the last 15 years.*" French President Jacques **Chirac** says the Earth needs a **UN environment organization**.

- The **UN IPCC** climate panel issued a much-awaited report saying **global warming** is man-made -- the consensus is that **human activity**, rather than **normal climatic rhythms**, is causing **global warming**. This fourth in a series of international reports reflects better science and more-precise models; it finds "many, many smoking guns". The **UK Environment Minister** says "*The debate over the science of climate change is well and truly over...*"; also all secondary schools in the UK will now see **Al Gore's** film *An Inconvenient Truth*. Former Next President **Al Gore**, a prophet in other lands if not his own, has been nominated for the **Nobel Peace Prize**.

The consensus is that "climate change could be far worse than previously thought". Plausible climate scenarios include famine in China and India. **Indonesia** may lose 2,000 (mostly uninhabited) islands to **climate change** -- "*We are still in a better position. Island countries like **Saint Lucia, Fiji** and the **Bahamas** would likely disappear.*" Climate talk dominated the **Canadian** Parliament -- "*Canada's federal politicians signaled a political climate shift yesterday...*". The 10 main candidates in **France's** upcoming presidential election (except far-right leader Jean-Marie Le Pen) have signed a "**Green Charter**". Certainly **climate change** will be bad -- the only chance of a Future beyond is to strive now not towards "reduction" but towards **CLIMATE NEUTRAL** activity -- processes that in aggregate have zero greenhouse effect.

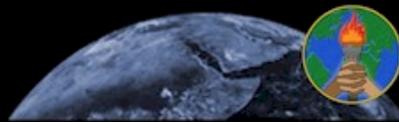
The **American Enterprise Institute** is using some of the \$1.6M it has received from **ExxonMobil** to blunt the certainty of the IPCC report. But some industrialists in the **US** are waking up to **global warming** -- "*If you're not at the table when these negotiations are going on, you're going to be on the menu*". A **US** Congressional committee says it is discovering the **Bush** administration engaged in systematic disinformation on **climate change**. A survey shows 13% of **Americans** have never heard of **global warming** -- people in **Latin America** were most worried while **US** citizens were least concerned with just 42% rating global warming "very serious".

For some the IPCC report is conservative. It is at odds with recent and unexpected **ice-sheet collapses** -- imminent sea level rise may be feet not inches. Also, the cycle of global warming now triggered could last "more than a millennium". And **clouds are still a puzzle** -- "global warming" may lead to a rapid cloud build-up and -- paradoxically -- a global "**nuclear winter**".

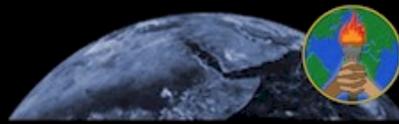
The green credentials of **palm oil** disappear when the **slash-and-burn** of **rain forests** to produce it is considered. [Ecology is a whole-process analysis.] High **DDT** levels have been found off the **California** coast -- the areas "*still contain high levels of banned DDT decades after a manufacturer dumped tons of the pesticide into sewers ...*"

2007 Jan 29

- A Chinese report, prepared by academics and government experts, ranked the country 100th out of 118 countries surveyed for responses to climate change. **Reuters** listed the [World's 10 most polluted places](#). The **Australian** Prime Minister has merged several functions into a new Cabinet level ministry of **Environment and Water Resources**. The fourth report of the **UN Intergovernmental Panel on Climate Change (IPCC)**, due for release in days, is tipped to forecast "wrenching change" -- the consensus of



2007 Jan 22	<p>2,500 scientists will say greenhouse gases are at highest levels for 650,000 years,</p> <ul style="list-style-type: none"> • <i>The Telegraph</i> [UK] published a tutorial on carbon credits systems. The recriminations for the colonial period strike another uncomfortable truth with Nigerian President Obasanjo attributing many of Africa's environmental problems to activities of other nations, past and present -- "<i>Many African nations ... suffered debilitating implications due to the activities of other nations.</i>" <p>China's century of development in 30 years has cost a century or more of environmental damage.</p> <p>An object lesson in the delicate complexity of the biosphere -- 50 million tons of mineral dust blown each year from Bodélé Depression near Lake Chad in Africa keeps the mineral-starved Amazon alive.</p> <p>The EU has made climate change central to its foreign policy -- "<i>We need to act because we see that more and more natural catastrophes are coming.</i>"</p> <p>"Will Al Gore Melt?" asks the <i>National Center for Policy Analysis</i> - debate is now joined between the side of Action spear-headed by the former Next President Al Gore and the side of Reaction led by business interests. New Speaker Pelosi seeks to form a global warming committee -- "<i>I promise to do everything in my power to achieve energy independence ... and to stop global warming.</i>"</p> <p>The "Doomsday Clock" maintained by decades by the <i>Bulletin of the Atomic Scientists</i> has advanced the clock two minutes to 23:55 -- it's later than some think.</p>
2007 Jan 15	<ul style="list-style-type: none"> • 2006 was warmest on record for the US -- "<i>That's 2.2 degrees warmer than average and 0.07 degree warmer than 1998, the previous warmest year on record.</i>" <p>"... the world's population discards 20 to 50 million tons of electrical and electronic waste each year ...</p>
2007 Jan 08	<p>↓ "Hot Spots" of mercury pollution have been identified in US and Canada -- "places where the neurotoxin has accumulated in fish and wildlife to such an extent that it could harm human health and local ecosystems." In China, Fujian villagers have protested industrial pollution of their lands by blocking roads.</p> <p>Joining many similar reports from around the world, the melting of Tibetan glaciers is accelerating -- this will eventually (perhaps soon) cause disastrous water shortages in India and Pakistan whose great rivers are fed by these glaciers. Thus hath the Mighty fallen ... by climate: the twilight of the Tang dynasty [618-907ad] began in 751, when the emperor's army was defeated by Arabs but climate change is thought to have finished the demise. "Energy giant ExxonMobil borrowed tactics from the tobacco industry to raise doubt about climate change..."</p>
2007 Jan 01	<p>↓ A huge ice shelf breaks has broken free in Canada's far north -- "Ice shelves in Canada's far north have decreased in size by as much as 90% since 1906."</p> <p>Reflecting rapid (19th century style) industrialization, Asian cities are the now most polluted worldwide -- "The metropolitan centres of this continent have pollution levels that are five times higher than those of Paris, London and New York."</p> <p>The US Army's expanded biodefense laboratory which hosts the world's deadliest organisms is itself not without risk and has alarmed environmentalists.</p>
2006 Dec 25	<p>↓ Bears in Europe have been discovered not sleeping through the Winter ... probably due to global warming. The 'Happy Feet' Rockhopper penguins have little to sing about ... "Their number in the Falkland Islands has tumbled 30 percent in just five years." Thirteen US states are suing the EPA over its neglect of soot emissions -- "... one more example of the federal government ignoring sound science in establishing environmental policy and watering down safeguards...." Separately, a US Appeals Court says the EPA must include a general responsibility for clean air in its functions. The US government has commenced a study of contaminated sites seeking effective methods -- subsurface contamination exists at 7,000 US sites</p>



2006 Dec 18

involving 1.7 Trillion gallons of contaminated *water*, 1.4B ft³ of contaminated *soil*.

- *Climatologists* have concluded that extreme *drought* on several continents and other *extreme weather* events can only one unsettling description -- "*radical variability*". A commentator reminds a new generation that the ultimate "*climate change*" would be a regional *nuclear* exchange that would bring years of "*nuclear winter*". The 20 million year old *river dolphin*, one of the world's oldest species, has been declared *extinct* in **China**. The most complex and far-reaching regulations anywhere, governing the handling of 30,000 *chemicals*, has been promulgated in the **EU**. The *Dead Sea* will disappear in 50 years if current trends persist -- cooperation between enemies will be necessary to save it.

2006 Dec 11

↓ Researchers have shown **India's** *rice* harvest has been curtailed as much as 11% by *air pollution*; but India says it is even more worried about *water*. **Peru** is signing so many contracts with multinational oil companies that half the rainforest of the Peruvian *Amazon* is now covered with oil leases. **Uruguay** says will not negotiate a *paper mill* dispute with **Argentina** until the border is unblocked -- "Uruguay failed to abide by a treaty calling for prior consultation and mutual agreement between the two countries on any action that could affect the border river."

2006 Dec 04

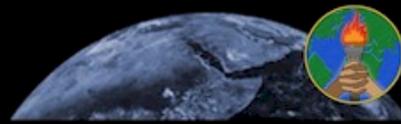
↓ **China** is now quite candid: "China is dangerously near a crisis. The country's enormous *environmental debt* will have to be paid one way or another." A Chinese *airline* has calculated that it takes a liter of fuel to flush the toilet at 30,000 feet and is urging passengers to go to the bathroom before they board. *Air pollution* is now a foreign affairs issue in southeast Asia; the *First Governmental Meeting on Urban Air Quality Management in Asia* will be held on 13 to 15 December 2006. Many cities in the *Great Lakes* region have antiquated systems for collecting and treating sewage and regularly release *untreated sewage* into local waterways." *Livestock* – heavy producers of *methane*-- are one of the most significant contributors to today's most serious environmental problems – "Urgent action is required to remedy the situation." Australian research finds *carbon dioxide* emissions have doubled since the 1990s -- "To have four years in a row of above-average carbon dioxide growth is unprecedented." The proponent of "*Gaia*" says only 80% of us are doomed -- "A hot Earth couldn't support much over 500 million."

2006 Nov 27

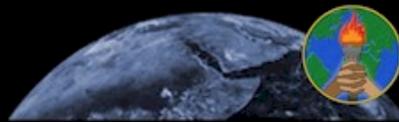
↓ Vast quantities of *discarded computer equipment* is ending up in *Africa* and developing nations elsewhere creating a dangerous mountain of *toxic "e-waste"* -- "the reporting we have at the moment is really just the tip of an iceberg." In a qualitative shift, the **EPA** will now regulate *nanotech* substances that enter the environment, such as silver-based household germicidal materials. A *chemical plant explosion* in *Massachusetts* is a reminder that cause (accident or terrorist) can be irrelevant to the hazard -- "It looks like a war zone ... It's devastating." For yet unclear reasons, the **EPA** has closed libraries, and *trashed unique research documents without notice to either the public or affected scientists*. [Opinion: If true, nothing short of criminal prosecution seems indicated.] Reducing *Methane*, is one of several greenhouse gases but reducing methane will see a quicker response – it has an atmospheric lifetime of about eight years, whereas *carbon dioxide* can last 100 years. "The Earth is shrinking" -- "although *population* growth has been curbed in many regions, the area of *habitable land* is decreasing at an increasing rate."

2006 Nov 20

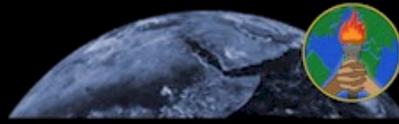
- Given *education* construction is the largest building sector in the **US** (and elsewhere), a few greener rules there could make a big bottom-line difference on *energy* use. Scientists call for a ban on a destructive practice -- "Scientific evidence has been



	<p>mounting that <i>deep-sea bottom trawling</i> ... can do long-lasting damage to the ecosystems."</p> <p>The American National Academy of Sciences finds <i>deforestation</i> stabilized or reversed in Vietnam, Spain, India; <i>worsening</i> in Brazil, Indonesia, Nigeria, Philippines.</p> <p>Nature fights back -- elephants in north-east India facing increasing <i>human encroachment</i> have gained a taste for rice beer and are going berserk on drunken rampages, killing villagers.</p>
2006 Nov 13	<p>↓ The West wants spending from the global [Climate Change] Adaptation Fund to be administered by GEF (Global Environment Facility); affected developing nations want more control.</p> <p>"Tilting at windfarms": a critic of the recent Stern Report says "wrong problem, wrong solution" and offers intelligent counter-arguments.</p> <p>Some experts want an urgent comprehensive review of the many real and present dangers from <i>chemicals</i> in the environment that are not yet widely known to be short-term and long-term hazards. A report says all children born in industrialized nations from 1960-80 are likely to have IQ impaired by environmental <i>chemicals</i>. Geochronology suggests the present drought over most of the driest continent, Australia, is a "1,000 year" <i>drought</i> -- whether this is an instance of global warming or not, it's very serious. Models also show that Australia, is set to get drier with <i>rainfall</i> possibly dropping 40% by 2070.</p> <p>China will surpass the US in 2009, nearly a decade ahead of previous predictions, as the biggest emitter <i>CO2</i>.</p>
2006 Nov 06	<p>↓ A NZ Air Force Orion crew has reported <i>ice-bergs</i> further north than usual -- "We were surprised by the number of them and by how far north they were."</p> <p>The atmospheric concentration of <i>carbon dioxide</i> rose by another 0.5% in 2005. "we will need more drastic measures than are in the <i>Kyoto Protocol</i> today." UK Prime Minister Blair fully supports the report on <i>Climate Change</i> by Sir Nicholas Stern - We must pay now to avoid climate disaster; "Put it another way, for every £1 spent now, we save £5 in the future." Former V-P, Al Gore, will advise the UK government on Climate Change issues. But a Cato Institute senior fellow says the <i>Stern Report</i> "flies in the face of most studies on the subject."</p> <p>The UK Foreign Secretary visiting India says India must embrace a low-carbon economy: "The very process which is making people's lives better across the world today is, at the same time, destroying their future." The WWF says India ranks third, next only to the US and China, in the rate it is turning its natural <i>resources</i> into <i>wastes</i>.</p> <p>A new study published in <i>Science</i> says common <i>ocean species</i> will be drastically depleted by 2048 at current catch (and waste) rates -- "Our children will see <i>a world without seafood</i> if we don't change things."</p>
2006 Oct 30	<p>↓ The World Wild-life Fund says humans are stripping nature at an unprecedented rate and will need two planets' worth of natural resources every year by 2050 on current trends.</p> <p>In Malaysia, <i>floods</i> wrought by <i>climate change</i> have hurt <i>rice</i> production in the country's rice bowl. Indonesia is getting Russian help to curb annual <i>smoke haze</i> that causes widespread health problems and costing economies as much as \$9B -- it is caused by <i>jungle fires</i> started by <i>illegal loggers</i> and small farmers. This year's <i>Antarctic ozone hole</i> is the largest on record, and several key <i>CFC</i> substitutes are contributing to <i>greenhouse global warming</i>.</p> <p>Some rare good news -- the Brazilian government's efforts are slowing <i>deforestation</i> of the <i>Amazon</i> forests.</p>



2006 Oct 23	<p>↓ UK Prime Minister Blair warned about climate change -- "<i>We have a window of only 10-15 years to take the steps we need to avoid crossing catastrophic tipping points.</i>" The UN warned that "millions of people in densely populated, low-lying, developing countries" such as Bangladesh and parts of China, Indonesia and Vietnam might be forced to move by rising sea levels as ice caps melt. Scientists have been able to show the link between human-induced <i>global warming</i> and the break-up of the <i>Larsen Ice Shelf</i>.</p> <p>The UN reports that the increasing number of "<i>dead zones</i>" in the world's oceans – large areas devoid of any living thing – is due to <i>algae</i> fed by human <i>pollution</i>; now the fasting growing economies and populations of East Asia are putting the region's marine ecosystem under increasing stress and increase the risk of new <i>dead zones</i>.</p>
2006 Oct 16	<p>↓ Four people each day in Hong Kong are dying of <i>smog</i> caused by industrial pollution from nearby China but the massive action necessary to improve conditions will take "a few more years".</p> <p>Member states of the International Maritime Organisation are flouting their own law in enforcing the ban on <i>tributyltin</i> marine paint that is deadly to marine life. "The Punjab is in the middle of a multidimensional ecological-disaster" – irresponsible use of <i>agro-chemicals</i> in the intensively-cropped Punjab is causing an epidemic of <i>birth defects</i> and other diseases.</p>
2006 Oct 09	<p>↓ A dangerous fire at a <i>hazardous waste</i> plant has sent a cloud of <i>chlorine</i> towards Raleigh NC, causing evacuation of 17,000 [A foretaste perhaps of how easily terrorist acts could cause the same disruption]. The world's top 20 polluter nations meeting in Mexico ended in an unusual level of agreement, but nothing else -- "While it will not cost the Earth to solve <i>climate change</i>, it will cost the Earth - literally and financially - if we don't". New research shows <i>extreme drought</i> could affect 30% of the world's land surface, up from the current 3%. A hint of things certainly to come – using RF chips, the UK starts to weigh and record garbage collected. Parasites from <i>fish farms</i> are killing as many as 95% of young wild salmon that migrate past them.</p>
2006 Oct 02	<ul style="list-style-type: none"> • The tsunami did some damage to the coral reefs off Aceh but not as much as done by <i>sediment</i> runoff caused by <i>deforestation</i> for settlement and illegal <i>logging</i>.
2006 Sep 25	<p>↑ The EPA has cut the existing standard of 65 micrograms per m3 of maximum <i>soot</i> in the air to 35 micrograms per m3. Virgin's <i>Richard Branson</i> has matched the Bush administration's \$3B investment in <i>global warming</i> mitigation. A "revolutionary" project to reverse Aral Sea damage is said to be making progress.</p>
2006 Sep 18	<p>↓ The increased melting of Arctic ice due to <i>global warming</i> between 2004 and 2005 is "enormous".</p>
2006 Sep 11	<p>↓ <i>Methane</i>, a greenhouse gas, released as the <i>permafrost</i> melt may trigger an ever faster chain-reaction of <i>global warming</i>.</p>
2006 Sep 04	<ul style="list-style-type: none"> • California has passed the first US bill to cap man-made greenhouse gas emissions— a leading Australian scientist says that top researchers in climate change (and stem-cells) are leaving because the government is hearing only what it wants to hear.
2006 Aug 28	<ul style="list-style-type: none"> • The halt in deterioration of the southern <i>ozone hole</i> indicates that concerted global efforts can have results — some sources claim breaks in <i>oil pipelines</i> due to corrosion is much more wide-spread than just a problem for BP's Alaska operation.
2006 Aug 21	<ul style="list-style-type: none"> • An international conference identified <i>Mercury</i> as a pollutant of "global magnitude" — there were massive <i>oil spills</i> in the Indian Ocean and off the Philippines — Chinese demand was blamed for most illegal logging in old-growth <i>rainforests</i> in Asia — as the <i>Kyoto protocol</i> excludes India and China a more sensible scheme would be based on absolute emission-reduction — one-third of US National Parks



	are threatened by pollution.
2006 Aug 14	<ul style="list-style-type: none"> The <i>sea floor</i> was suggested as another place to sequester <i>CO2</i> — the EPA reached an arrangement on the safe disposal of 200 tons of <i>mercury</i> from old motor vehicles..
2006 Aug 07	<p>↓ Just one byproduct of China’s shining progress is a half-million tons of <i>sulphur dioxide</i> sent into the atmosphere each <i>week</i> — studies showed newly-perceived dangers of <i>nano-particle</i> pollutants, so small they pass through most filters — states are asking the EPA to disclose those toxic ingredients in <i>pesticides</i> which due to a legal nonsense are not presently listed on products — the <i>oceans</i> have been found to be teeming with orders of magnitude more unknown types of <i>bacteria</i> than once thought — FEMA’s post-Katrina trailer-homes seem to be an instance of "<i>sick building syndrome</i>" associated with out-gassing from modern building materials..</p>
2006 Jul 31	<p>↓ Some will disagree but a consensus says the only <i>global warming</i> skeptics now are financially motivated to take that position; the pesticide and nutrient rich Mississippi is again killing a wide area of the Gulf of Mexico; on some days, China’s pollution is now reaching California.</p>
2006 Jul 24	<p>↓ The catastrophic ceaseless clearing of the Amazon has been identified as a direct factor in global <i>Climate Change</i>. Worryingly, NASA took planet Earth off its mission statement.</p>
2006 Jul 17	<p>↓ The objective evidence for <i>climate warming</i> – irrespective of the possible cause -- is in: the first half of 2006 was 3°F to 4°F above the 20th century average.</p>
2006 Jul 10	<ul style="list-style-type: none"> As oceans acidify and other effects of climate warming such as wild-fires are identified, the Supreme Court is considering whether the CO2 molecule is within the responsibility of the EPA.
2006 Jul 03	<p>↓ The scientific consensus grows further that (a) climate change through global warming is real, and (b) to a lesser consensus, that CO2 and other greenhouse gases are directly responsible. Irrespective of the causation arguments, climate change mitigation and adaptation strategies and notched-up disaster preparedness (fires, storms, floods, droughts) are new burdens for all governments.</p>

Commencement of Service

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