# A SELECTION OF SLIDES FROM PROFESSOR STEPHEN SCHNEIDER'S LECTURE

# Climate Change and the Kyoto Protocol:

The Planetary Gamble We Can't Afford to Lose

# STRADA



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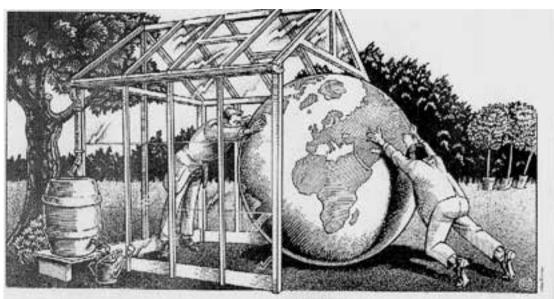
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ENVIRONMENT

# The greenhouse war

# Science Has Spoken: Global Warming Is a Myth

By AMERICA H. BEARDOON

And accurate or transfer to position of the property of the pr

The mpth of "global warming" starts with an accurate observation: The amount of ourton dioxide in the atmosphere is rising. It is now about 300 parts per million. on. 200 at the beginning of the 20th contury. Reasonable entireates trylicate that it may economisty rise as high as \$10 parts per mailion. This rise probably evenits buse human burning of coal, oil and natoral year, a though this is not certain. farth's occurs and land best some 16 Cross as much carbon dioxide as is in the simulations, and propertient between these reservoirs of curbon disolds is poorly unherstood. The observed rise in atmosshorte metan divendo does correspond with the time of the name release and equals shout half of the . would released.

Carbon districts, w. ...... and a few other infortuness are "green, one green." For reasons predictable from their physics and deminitry, they tend to admit more sour energy into the atmosphery than they silow to excess. Actually, things are not so simple as this, since these redutances inserior among themselves and with other aspects of the atmosphere in complex wast that are not well understood. Still, it was reasonable to hypothesise that riving atmospheric carbas disable sevels might cause admospheric temperatures to rior. home people predicted "great warming." which has come to mean common greensome warming of the atmosphere leading to estastrophic environmental conse-

### Careful Tests

The global-warring hypothesis, howers, is no longer insubit. Scientists have been saids to test it carefully, and it does not hold up. During the past to years, as atmospheric curson shoulds involve have does, extending have rade precise measurements of atmospheric temperature. These measurements have definitively shown that major atmospheric groundousle warrings of the atmospheric groundousle warrings of the atmospheric in you occur-

ring and is unitseen over to occur.

The temperature of the Atmosphere formation ever a wide trage, the result of main receively and where techniques the result of main receively and where techniques to have been better watered perfects when it was destinately warmed periods. Once of the two coldent periods. Once on the Lorde to Age, occurred 200 years ago. Atmosphere temperatures have been suiting from that few for the page 300 years, but remain below the LORDest groups.

Why are temperatures rising? The first

can equidicantly, toxice extantopolically. If attractorist carbon disable room, Manifel from Minister lands has constructed authorists that has been a constructed from the plant and between the foreign that past 12 years. Yet there has been on appointment for international from the plant and properties to descript the 2 years with the highest darbon the 2 years with the highest darbon declared levels, temperatures have decreased.

In science, the ultimate best is the process of experiment. If a hypothesis fails

# During the 20 years with the highest carbon dioxide levels, temperatures have decreased.

chart marrly shows temperatures during the past 20 years, relative is the mean temperature for 2011-78. The same chartshows the length of the solar magnetic receduring the same period. Close correlation between these two parameters—the shorter the selar cytic (and below the more active the stail, the higher the temperature—demonstrated, as do other stailies, that the gradual wavening since the Luttle its Age and the large fluximations during that tearning stare been caused by changes in solar activity. the experimental lest, it must be discarded. Therefore, the scientific method requires that the gislad warming hypothesis he resected.

Why, then, is there confinsing actertife interest in "global variating." There is a field of toping in which concentre are using computers to key to predict the weather—even global weather over very leng periods. But global weather is no complicated that current data and computer methods are invalidated to make such predictions. Although it is reasonbegind current capabilities.

to no headed warry about human and a liquid subsequently as warring the first. We should environmental misurities, some if the starrest, natural marming sund continuous After all the Karth has been such warrant during the past 1,500 years without it effects.

that we situall warry about the offices of the hydrocerbon relicating being proposed at Kycos. Hydrocerbon use has made environmental benefits. A great dead of a neurch has stower that increases in a paragpharic carbon dientile accessors the growth ratio of plants and the permit plants to prove in debr regions. Amenaille, which depends upon plants, also increates.

Banding Bather in the United States has already increased by 30% since Bits. There are now if tons of timber for every American. Tree-ring stadies further confers this speciations lucroses in tree growth rades. It has also been found that matter Assumedias rain formes are interesting in blossess at about two been per ages per year. A composite of 279 research tradies predicts that worth plans providrates will ultimately double as carbon denote becomes.

### Lash Environment

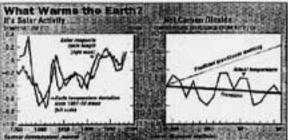
What manded is defing its moving hyfree-closes from below ground and terming them into firing Congs. We are ining them into firing Congs, we are ining plants and automate as a result of the carbon climide increase. Our children will enjoy no Barth with twice as much plant and automat life as that with which we now acce blessed. This is a wonderin and unempeted gift from the industrial

Hydrocartoon are received to least and this from preverty was mandern of people arrows the father. This can eventually allow all homes beings to tire long, prospectual healthy, productive lives. No other ningle bedreshinghod factor is more important in the increase in the quality, length and questing of human life than the continued are of the farthy hydrocarthoon, of which we have proved and carrationed use of the farthy hydrocarthoon, of which we have proven reserves to last more than 1.500 years. Global venturing in a crysti. The reservey is that global powerty and death would be the result of Kynto's retitioning of

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predicting local weather even for a few

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The highest importaines during this period occurred in about 13th Dering the part 30 years, atmospheric temperatures have unually tended to go down, as those have unually tended to go down, as those his the second chart, based on very reliable satellite data, which have been confirmed to executivents from weather latitions.

Consider what this means for the global-warming hypothesis. This hypothesis prodicts that global temperatures will

Jether Robinson and Zachary Robinson are chamists at the Oropon Institute of Science and Histoise.

# POSSIBLE WEATHER FORECAST FOR SUMMER DAY BUT THOSE MONORCOCKNED IT THEY CA

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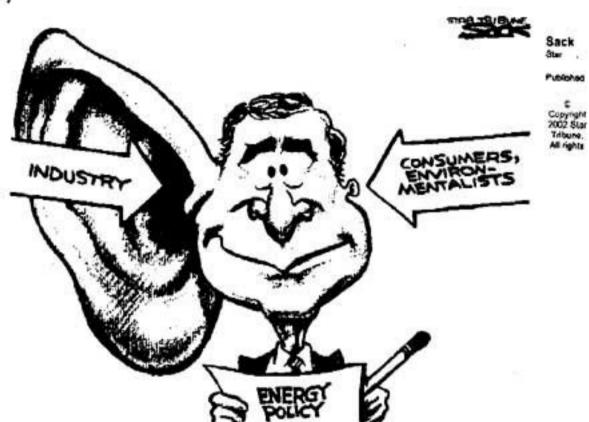
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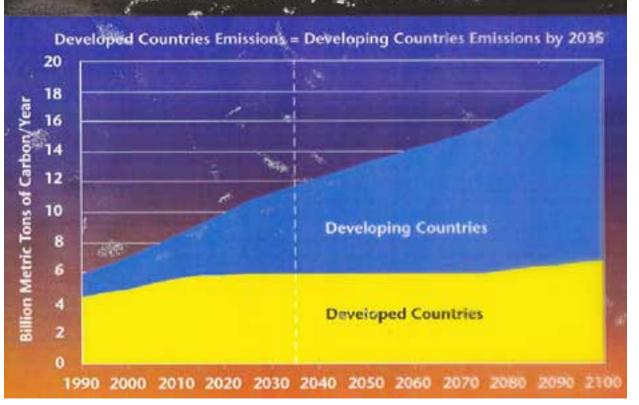
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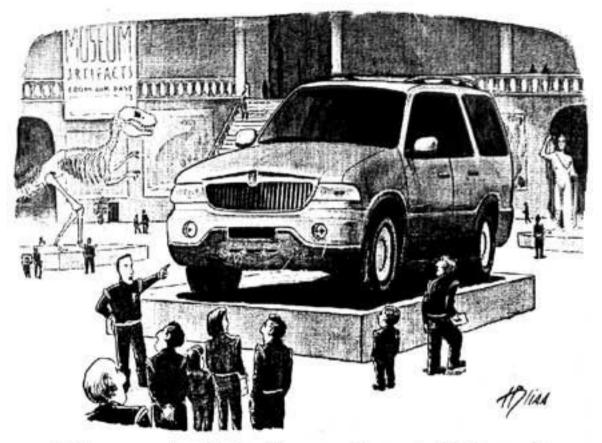
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# Developed and Developing World CO<sub>2</sub> Emissions, 1990-2100





"We're not certain why they disappeared, but archeologists speculate that it may have had something to do with their size."

# Large Vehicles Are the Solution, Not the Problem

By SAM KARNAN

If you licens to providing, you'd think approaching residence were reconstructured to the proposal properties of the properties of the properties of the properties of the providing the providing the properties and excounting visits of riving, West of oil, because of likely from the properties of the

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Mr. Commo is present contact of the Competitive Enterprise Authors in Man-Ingent. In graph 17-19-19

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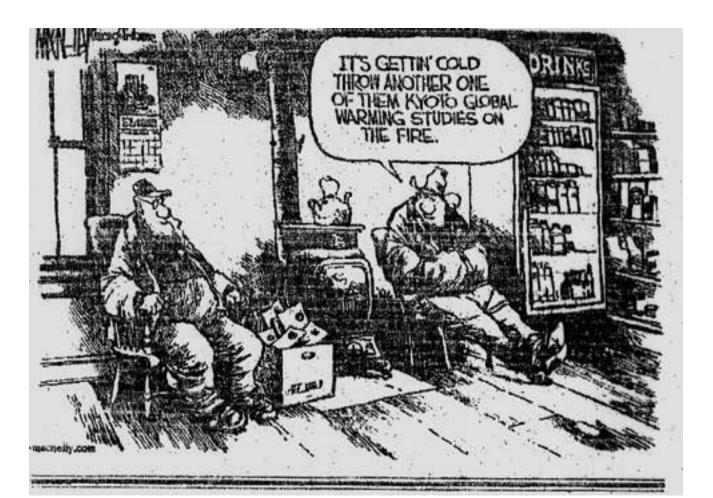
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RHYMES WITH ORANGE • Hilary B. Price

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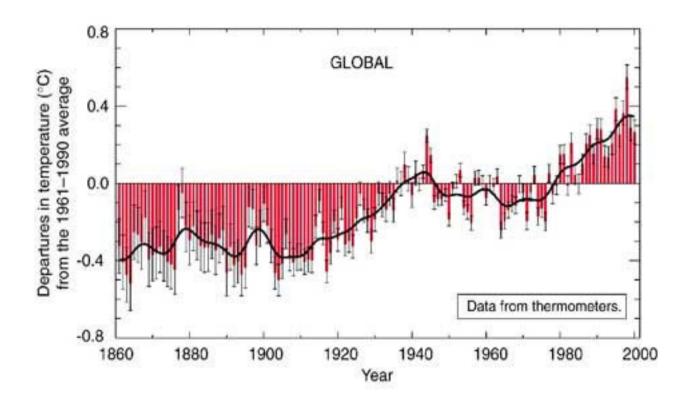
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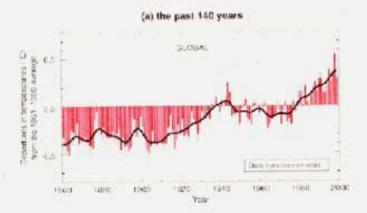
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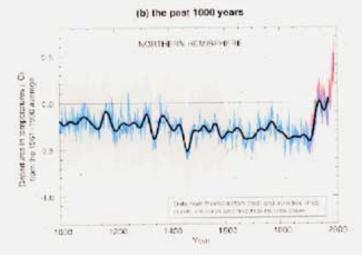
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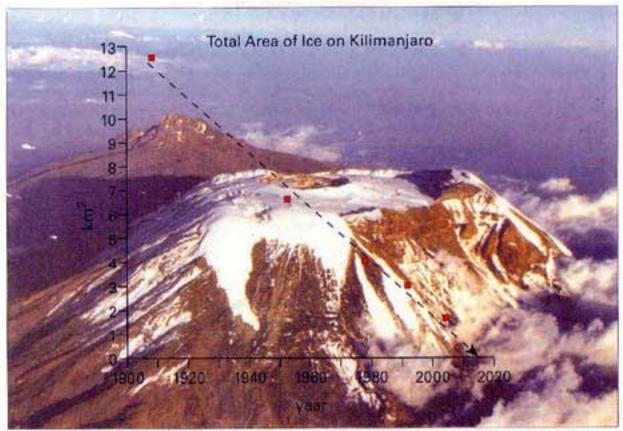


**Figures** 

# Variations of the Earth's surface temperature for:







The extent of ice cover on Mt. Kilimaniaro decreased by 81% between 1912 and 2000. Disappearing paleoclimate archives such as this are a priority target of the Global Paleoclimate Observing System currently being proposed by PAGES scientists. For more information see the editorial in this issue of PAGES News. Photo: Captain G. Mazula, Data: Lonnie Thompson.

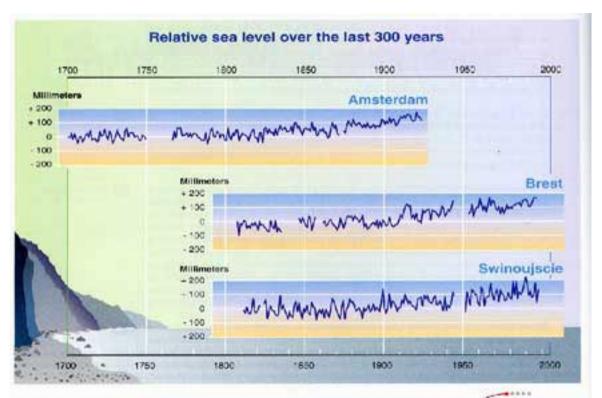


Figure 2-3: A limited number of sites in Europe have nearly continuous records of sea level spanning 300 years and show the greatest rise in sea level over the 20th century. Hopords shown from Amsterdam, The Netherlands, Brest, France, and Swinoujscie, Poland, as well as other sites, confirm the accelerated rise in sea level over the 20th century as compared to the 10th.

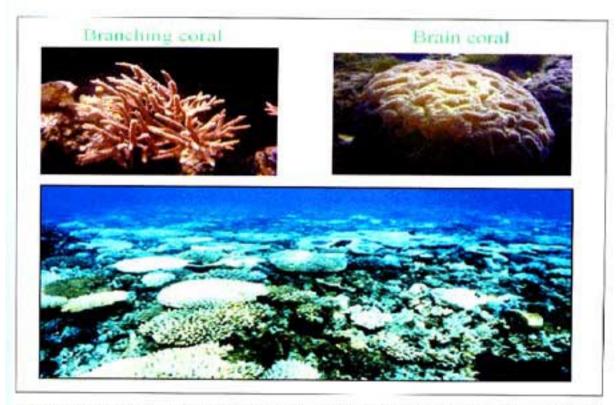


Figure 4-3: The diversity of corals could be affected with the branching corals (e.g., staghorn coral) decreasing or becoming locally extinct as they fund to be more severely affected by increases in sea surface temporatures, and the massive corals (e.g., brain corals) increasing.

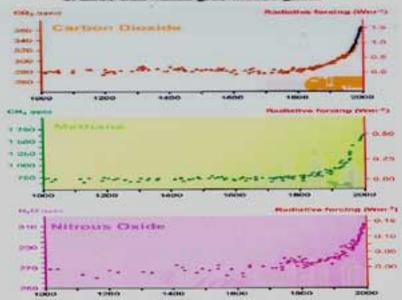


Baltimore Oriole (Icterus galbula)



### Indicators of the human influence on the atmosphere during the industrial era

# Global atmospheric consentrations of three well-mixed preenhouse gases



## Sulfate aerosots deposited in Greenland ice



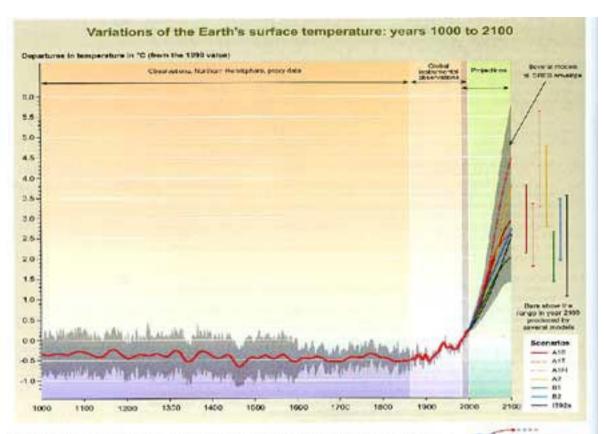


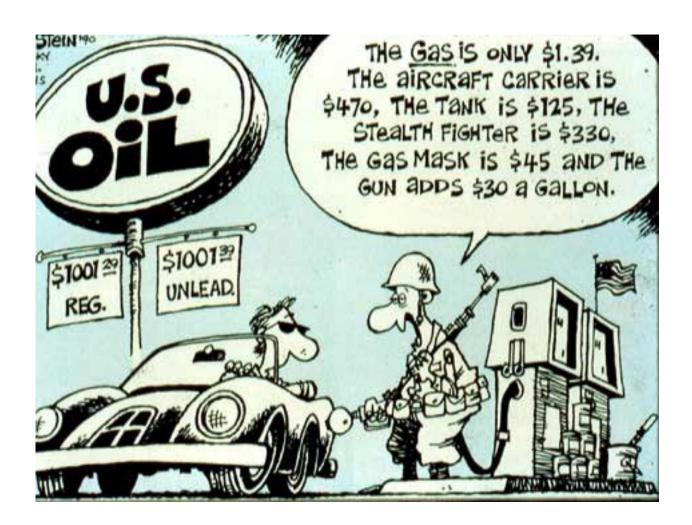
Figure 3: the Variations of the Earth's surface temperature: years 1000 to 2100. Over the period 1000 to 1000 to 1000, observations are shown interesting a surface barporature of the Northeast are majored (or reaconding data from the Southern Hornestern Hornestern no: weaking a resimulated from proxy office trees range, coasis, for cores, and belonded recorded. The line shows the 50-year swinger, and the pray region the 95% convidence limit in the annual data. From the years 1000 to 2000, observations are shown of variations of global and annual averaged surface temperature from the instrumental record. The line shows the 600000 observations and 15000 as a substantial by a model with average climate we natively. The gray region "nevertal models at 84846 envisions" shows the range of results from the full range of 35 60000 according to the size of results from the full range of 35 60000 according to the size of results from the full range of 35 60000 according to the size of results from the full range of 35 60000 according to the size of results from the full range of 35 60000 according to the size of results from the full range of the State of the size of the size of results from the full range of the State of the size of

Keystone policies

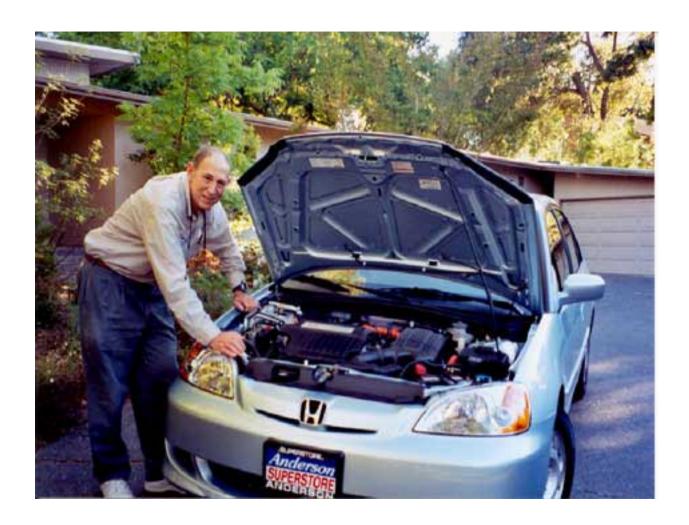
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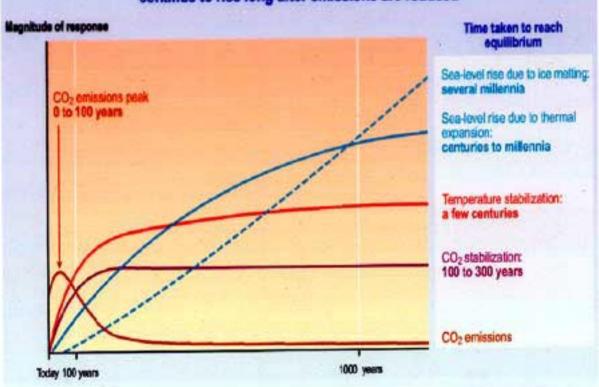








# CO<sub>2</sub> concentration, temperature and sea level continue to rise long after emissions are reduced





Dan Wasserman Boston Globe Les Angeles Times Syndicate

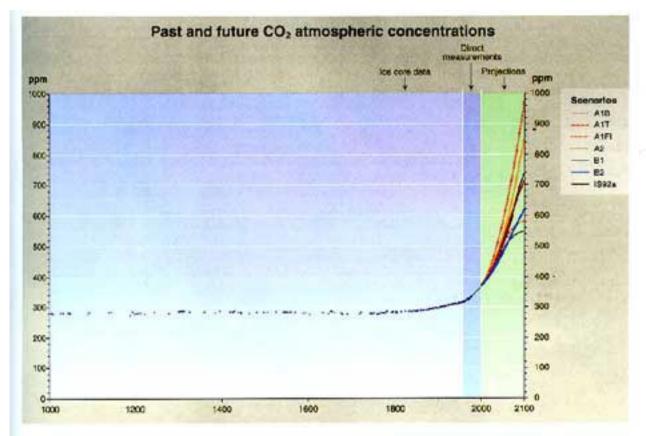


Figure SPM-10a: Almospheric CO<sub>2</sub> concentration from year 1000 to year 2000 from ice core data and from cleed atmospheric measurements over the past two decades. Projections of CO<sub>2</sub> concentrations for the posted 2000 to 2100 are based on the six illustrative SPES acentarion and ISSEs (for comparison with the SAR).

Qfirgundits