

A Climate Chronology

JAN 09, 2025 · PAID

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It's hard to disagree with 'saving Planet Earth', because what's the alternative? And - as the case was with 'The Patriot Act' or 'killing grannies' during the *alleged* pandemic - the media will have a field trip with any politician daring to disagree.



It would have been convenient with a **comprehensive** chronology, but in practise, there are quite simply too many feeder events to list. And I've sat on this article for, realistically, no less than 6 months, never quite managing to complete it as one event or the other always came up requiring inclusion. It has even spawned a few separate articles (*Climategate being one*), as sections became far too long. But as I seek to wrap up, what you see is what you get. Consequently, some significant events may have been left out through intent - or lack of awareness.

But first, here's an outline since Rio, 1992¹. I post this for two reasons. One - because my emphasis here is on the time leading up to the Earth Summit (*after which coverage granularity declines*), and two - with the financial markets dominating headlines in late 2009, and with a complicit media busy lying through their teeth about the '*failure in Copenhagen*', COP15² was the event where our elected leaders through the Global Environment Facility (*aka World Conservation Bank*) first decided to **give our taxes to the Major Foundations through blended finance charity**.



The Global Environment Facility

ESC • JANUARY 8, 2024

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The World Conservation Bank

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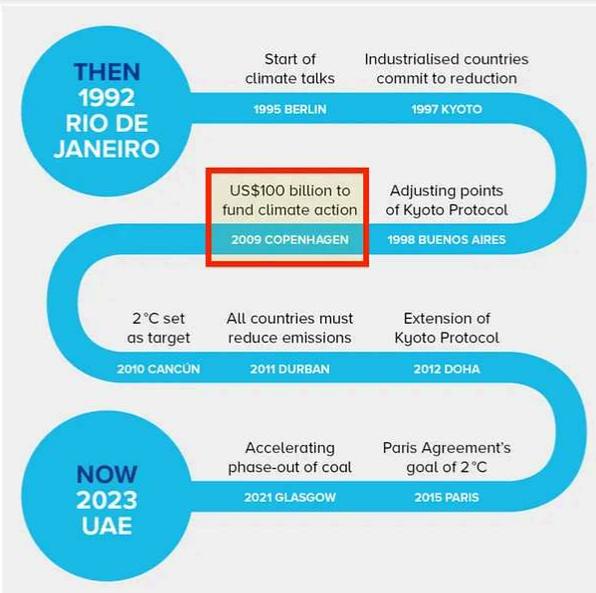
Blended Finance

ESC • DECEMBER 22, 2023

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In 1995, the first Conference of the Parties took place in Berlin, followed by COP2 in Geneva, Switzerland. Both formed the basis for subsequent international climate talks. In 1997, the focus was the implementation of the UNFCCC. After long negotiations, the Parties agreed on the Kyoto Protocol, the most far-reaching climate agreement to date. For the first time, an absolute and legally binding limit on greenhouse gas (GHG) emissions for industrialised countries was anchored in an international treaty.

The Kyoto Protocol was ratified by 191 nations several years later on 16 February 2005. Notably, the US was not among this group, in spite of becoming a signatory during COP4.

With the Kyoto Protocol, 37 industrialised countries committed themselves to reduce GHG emissions to 5.2% below 1990 levels between 2008 and 2012. No restrictions were imposed on developing countries, even high polluters. International emissions trading was also introduced.

COP 15: Copenhagen climate change conference 2009

This article is more than 15 years old

Low targets, goals dropped: Copenhagen ends in failure

Deal thrashed out at talks condemned as climate change scepticism in action

John Vidal, Allegra Stratton and Suzanne Goldenberg in Copenhagen
Sat 19 Dec 2009 00:47 GMT

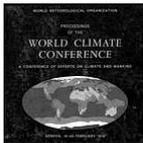


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Incidentally, Bert Bolin wrote just such a chronology³. But given this very same Bolin in 1976 in front of US Congress stated that they very knew little (*apart from co2 being plant food*), only for him to turn around, adding to the absurd 1979 World Climate Conference 'Appeal to Nations' rules him out as a trustworhy, impartial actor.



The World Climate Conference

DECEMBER 13, 2024

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An Appeal to Nations

Climate and the future

Climate will continue to vary and to change due to natural causes. The slow cooling trend in parts of the northern hemisphere during the last few decades is similar to others of natural origin in the past, and thus whether it will continue or not is unknown.

Research is revealing many basic features of climatic changes of the past and is providing the basis for projections of future climate. The causes of climate variations are becoming better understood, but uncertainty exists about many of them and their relative importance.

Nevertheless, we can say with some confidence that the burning of fossil fuels, deforestation, and changes of land use have increased the amount of carbon dioxide in the atmosphere by about 15 per cent during the last century and it is at present increasing by about 0.4 per cent per year. It is likely that an increase will continue in the future. Carbon dioxide plays a fundamental role in determining the temperature of the earth's atmosphere, and it appears plausible that an increased amount of carbon dioxide in the atmosphere can contribute to a gradual warming of the lower atmosphere, especially at high latitudes. Patterns of change would be likely to affect the distribution of temperature, rainfall and other meteorological parameters, but the details of the changes are still poorly understood.

(iii) The means by which human societies can protect against adverse consequences of, and take advantage of the opportunities presented by, climate variations and changes.

The overall purposes of the Programme are thus to provide the means to foresee possible future changes of climate and to aid nations in the application of climatic data and knowledge to the planning and management of all aspects of man's activities. This will require an inter-disciplinary effort of unprecedented scope at the national and international levels.

The long-term survival of mankind depends on achieving a harmony between society and nature. The climate is but one characteristic of our natural environment that needs to be wisely utilized. All elements of the environment interact, both locally and remotely. Degradation of the environment in any national or geographical area must be a major concern of society because it may influence climate elsewhere. The nations of the world must work together to preserve the fertility of the soils; to avoid misuse of the world's water resources, forests and rangelands; to arrest desertification; and to lessen pollution of the atmosphere and the oceans. These actions by nations will require great determination and adequate material resources, and they will be meaningful only in a world at peace.

- 1892 The Sierra Club launches in the United States⁴.
'Recent goals include promoting sustainable energy and mitigating global warming, as well as opposing the use of coal, hydropower, and nuclear power.'
- 1895 The National Trust is founded in the United Kingdom⁵.
'One of the largest landowners in the United Kingdom, the Trust owns almost 250,000 hectares (620,000 acres; 2,500 km²; 970 sq mi) of land and 780 miles (1,260 km) of coast'

- 1912 Society for the Promotion of Nature Reserves ⁶.
Launched by Charles Rothschild.
- 1919 Julian Huxley celebrates honeymoon on Rothschild Estate ⁷.
Walter Rothschild, to be specific ^{8,9}.

Ties That Bind

Understanding courtship and pair bonds

Robert Montgomerie

On his honeymoon, Julian Huxley [1887-1975] spent his mornings watching the breeding habits of the Great Crested Grebe. Soon after their marriage in the spring of 1919, Julian and his new wife, Juliette, repaired to a cottage about 50 km southwest of London, England, not far from Fresham Pond where Julian set up a hide to watch his birds. Juliette was not impressed: "Julian erected a very small bird-watcher's canvas hide, just big enough for one. He settled in every morning, equipped with telescope and notebook, to watch the Great Crested Grebes at their ritual courtship and display. I joined him later, marking time in the bitter April wind. The birds did not display, defeated by the cold wind, and I was bored and frozen." (Huxley 1986). She lamented that Julian seemed more interested in the nuptials of grebes than in his own nascent love life.



Huxley had begun his grebe research in the spring of 1912 on a pond at Tring, on the estate of Walter Rothschild. For two weeks there, aided by his brother Trevenen, Huxley watched a pair of grebes courting, copulating, and incubating. The result was a landmark paper describing in intimate detail the behaviour of this mated pair, and interpreting what he saw in light of Darwin's theories. Here is Juliette again:

Walter Rothschild, 2nd Baron Rothschild

From Wikipedia, the free encyclopedia

Lionel Walter Rothschild, 2nd Baron Rothschild, Baron de Rothschild (11 FRS (FRS) (8 February 1868 – 27 August 1937) was a British banker, politician, zoologist and soldier, who was a member of the Rothschild family. As a Zionist leader, he was presented with the **Balfour Declaration**, which pledged British support for a Jewish national home in Palestine. Rothschild was the president of the Board of Deputies of British Jews from 1925 to 1926.

Early life

Walter Rothschild was born in London as the eldest son and heir of Emma Louise von Rothschild and Nathan Rothschild, 1st Baron Rothschild, an immensely wealthy financier of the international Rothschild financial dynasty and the first Jewish peer in England.^[6]

The eldest of three children, Walter was deemed to have delicate health and was educated at home. As a young man, he travelled in Europe, attending the University of Bonn for a year before entering Magdalene College, Cambridge, in 1889, leaving Cambridge after two years, he was required to go into the family banking business to study finance.

At the age of seven, he declared that he would run a zoological museum and, as a child, he collected insects, butterflies and other animals. Among his pets at the family home in Tring Park were kangaroos and exotic birds. As a boy, Rothschild was once dragged off his horse and assaulted by workmen while on a hunting ride near Tring, an experience he attributed to antisemitism.^[5]

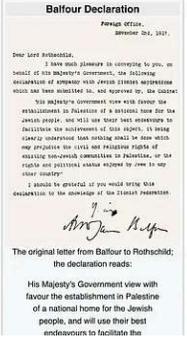
Balfour Declaration

From Wikipedia, the free encyclopedia

For the document on the Dominions of the British Empire, see Balfour Declaration of 1926.

The **Balfour Declaration** was a public statement issued by the British Government in 1917 during the First World War announcing its support for the establishment of a "national home for the Jewish people" in Palestine, then an Ottoman region with a small minority Jewish population. The declaration was contained in a letter dated 2 November 1917 from the United Kingdom's Foreign Secretary Arthur Balfour to Lord Rothschild, a leader of the British Jewish community, for transmission to the Zionist Federation of Great Britain and Ireland. The text of the declaration was published in the press on 9 November 1917.

Immediately following Britain's declaration of war on the Ottoman Empire in November 1914, it began to consider the future of Palestine. Within two months a memorandum was circulated to the War Cabinet by a Zionist member, Herbert Samuel, proposing the support of Zionist ambitions in order to enlist the support of Jews in the wider war. A committee was established in April 1915 by British Prime Minister H. H. Asquith to determine their policy toward the Ottoman Empire including Palestine. Asquith, who had followed post-war reform of the Ottoman Empire, resigned in December 1916; his replacement David Lloyd George favoured partition of the Empire. The first negotiations between the British and the Zionists took place at a conference on 7 February 1917 that included Sir Mark Sykes and the Zionist leadership. Subsequent discussions led to Balfour's request, on 19 June, that Rothschild and Chaim Weizmann submit a draft of a public declaration. Further drafts were discussed by the British Cabinet during September and October, with input from Zionist and anti-Zionist Jews but with no representation from the local population in Palestine.



- 1936 Technocracy, Inc ¹⁰ / The Energy Certificate ¹¹.

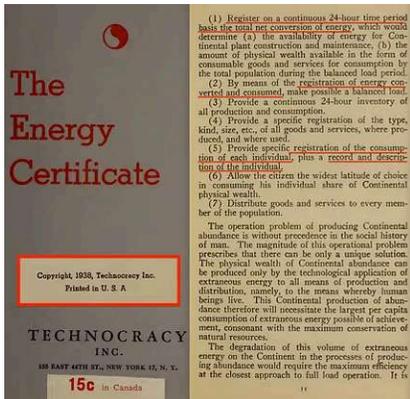
Key to understanding many events is the concept of the 'energy certificate', outlined by Technocracy, Inc in 1936. These, in essence, describe carbon-backed CBDCs. Sure, these were early, and with plenty of outstanding detail - but they grasped the fundamental idea. Their 'Study Course' - penned by MK Hubbert, who 'coincidentally' also came up with the concept of 'Peak Oil' - further outlined the bidirectional chemical reaction later fused into the UNFCCC and the CBD - and the two carbon currencies they roll out at present.



The Carbon Currency

ESC • MAY 3, 2024

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obvious that the production of the physical wealth of Continental abundance will be attained only with human toil as a minimum, and it therefore follows that the unique solution of this operational problem must be the accurate measurement of all extraneous energy converted on the Continental area, and the continuous recording of its allocated degradation in providing the citizens of this Continent with the physical wealth of abundance for individual consumption.

Science and technology have no values; only measurement. The only method known to science in the measurement of the cost of all physical operations is that of the amount of energy consumed per unit mass, per unit time, per unit distance. Technocracy presents the only methodical control of the conversion and consumption of extraneous energy on this Continental area.

PART II

The Energy Certificate

The total amount of certificates which will be issued will represent the total amount of net energy converted in the making of goods and the provision of services. All operating, replacement, maintenance, and expansion costs (in energy) of the Continental complex, all costs of communal services and provisions (such as local transportation, public health, and minimum housing space for each individual) are deducted before the net energy is arrived at.

The conversion of human energy does not enter into this calculation since it amounts to below 2 percent of the total consumed energy. The individual's

share is not based upon his contribution of work or effort to the total operations of the area. There is no theory of labor "value"—or of any other "value."

Individual Consuming Privileges

Every adult above 25 years of age will receive as his share of purchasing power an equal part of the total net consumed energy, and from birth to the twenty-fifth year every individual will receive a maintenance allowance.

The certificate will be issued directly to the individual. It is non-transferable and non-seizable, and therefore it cannot be stolen, lost, loaned, borrowed, or given away. It is non-cumulative, therefore cannot be saved, and it does not bear interest. If not used it is spent, but loses its validity after a designated time period.

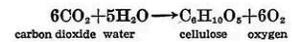
The female will receive the same amount of certificates as the male, and receives them entirely independent of him.

The energy certificate represents equal, though not identical, purchasing power for every adult living on this Continent. In itself it represents nothing of value. It is much in the nature of a blank check—a scrap of paper.

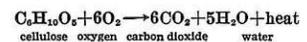
The certificate is valid only for the purchase of items individually consumable. Means of production and distribution are not obtainable by the individual. The individual does not receive beyond his immediate personal requirements and apparel. For example, he does not own an automobile but merely pays for the use of transportation facilities on a time-distance basis.

Technocracy's mechanics of social control will permit no curtailment or differentiated increase of individual purchasing power.

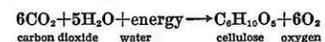
The available use forms and services will most probably be beyond the consuming power of the individual.



Cellulose plus lignin, a similar material, compose the woody material of plants. We have already seen that the chemical combination of wood with oxygen releases heat, as follows:



It will be noticed that the production of plant substance is chemically exactly the opposite from the burning of wood. Since energy is released when wood is burned, then an exact equal amount of energy must have been required when the wood was formed in the first place. Accordingly, the formation of wood may be represented:



- **1948 The Conservation Foundation.**

Ultimately merged with the WWF in 1990, this organisation experienced their heyday during especially the 60s and 70s, where the (*heavily Rockefeller Foundation funded*) foundation produced many studies on topics which would later prove useful. Incidentally, its founder (*Henry Fairfield Osborn*) was an ECOSOC associated eugenicist.



The Conservation Foundation

ESC • JANUARY 31, 2024

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- **1950-1990 The Discovery of Global Warming ¹².**

Extensive collection of mispredictions and examples of climate alarmism.

The Discovery of Global Warming

April 2023

Impacts of Climate Change

At first global warming sounded like a good idea, especially to people in Northern climes. But starting in the 1960s, scientists recognized long-range problems, concentrating at first on sea-level rise and a threat to food supplies. New items were gradually added to the list, ranging from the degradation of ecosystems to threats to human health to risks of international conflict. Experts in fields from forestry to economics, even national security experts, pitched in to assess the range of possible consequences. It was difficult to make solid predictions given the complexity of the global system, the differences from one region to another, and the ways human society itself might try to adapt to the changes. But by the start of the 21st century, it was clear that climate change would bring serious harm to most regions. Indeed many kinds of damage were beginning to appear. At first the changes were apparent only in global statistics, but in the 2010s scientists began to show how global warming made particular heat waves, storms, and other disasters more likely or worse. (For detailed discussion of flooding from sea-level rise and intense storms see the separate essay on [Ice Sheets, Rising Seas, Floods](#). Current scientific understanding of impacts is summarized [at the bottom](#) of this essay).

"As scientists, it's a little humbling that we've kind of been saying this for 20 years now, and it's not until people notice daffodils coming out in December that they start to say, 'Maybe they're right.'" — Myles R. Allen.⁽¹⁾

Through the first half of the 20th century, when global warming from the greenhouse effect was only a speculation, the handful of scientists who thought about it supposed any warming would be for the good. Svante Arrhenius, who published the first calculations in 1896, claimed that the world "may hope to enjoy ages with more equable and better climates."^(1a) Most people assumed that a "balance of nature" made catastrophic consequences impossible, and if any change did result from the "progress" of human industry, it would be all to the good. In any case nobody worried about the impacts of a climate change that scientists expected would only affect their remote descendants, several centuries in the future, if it happened at all.

- LINKS -

[for more on this see Public opinion](#)

A few scientists took a closer look in the late 1950s when they realized that the level of carbon dioxide gas (CO₂) in the atmosphere might be rising, suggesting that the average global temperature might climb a few degrees Celsius before the end of the 21st century. Roger Revelle, the most senior of these researchers, publicly speculated that in the 21st century the greenhouse effect might exert "a violent effect on the earth's climate" (as *Time* magazine put it). He thought the temperature rise might eventually melt the Greenland and Antarctic icecaps, raising sea level enough to flood coastlines. Noting that climate had changed abruptly in the past, perhaps bringing the downfall of entire civilizations in the ancient world, in 1957 Revelle told a Congressional committee that the greenhouse effect might someday turn Southern California and Texas into "real deserts." He also remarked that the Arctic Ocean might become ice-free, to Russia's advantage. A more famous scientist, Edward Teller, told a meeting of chemists in 1957 that a 10% rise of the CO₂ level, which he expected by the end of the century, would melt so much ice that "Such places as New York and Holland would be inundated."

Everyone understood this was colorful speculation, more science fiction than scientific prediction. A more cautious senior scientist told his colleagues that they should take seriously the possibility of "warming, and possible changes in rainfall and cloudiness" by the early 21st century. Meanwhile a pair of graduate students reported that the greenhouse effect "could raise such problems as coastal flooding due to rise in sea level and increased aridity in certain areas."⁽²⁾

More scientists began to look at the matter after 1960, when observations showed the level of CO₂ in the atmosphere was indeed rising rapidly. In 1963 a path-breaking meeting on "Implications of Rising Carbon Dioxide Content of the Atmosphere" was convened by the private Conservation Foundation. "Conservation" was the traditional term for a movement that was developing into "environmentalism," centered on the growing realization that human activities had expanded to the point where they could damage vital ecosystems on a global scale. A majority of the meeting's funding came from oil companies, already sensing a threat to their business. Participants in the meeting began to frame greenhouse warming as an environmental problem — something "potentially dangerous" to biological systems as well as to humans.

The meeting set the pattern for many later exercises. It brought together experts in carbon dioxide and climate (in fact the *only* experts at that time: Gih Pliss and Dave Keeling) with a handful of experts in fisheries, agriculture and so forth. And it resulted in a "consensus" report, which warned that if fossil fuel burning continued, "the earth will be changed, more than likely for the worse." But the group, like many later ones, admitted ignorance, and called for more research. They could scarcely say what dangers might await. They suspected forest productivity would improve, which did not sound bad, and that the distribution of species including commercial fisheries would change, which could be bad or good. The only thing they felt confident about was that rising temperatures would increase melting of the world's glaciers, raising the sea level and bringing "immense flooding" of low-lying areas. Peering dimly into a future that seemed centuries ahead, they thought a warming of just a few degrees could melt the polar ice caps and inundate cities like New York and London, while "many life forms would be annihilated both on land and in the sea." There were no numbers or probabilities attached to any of this. If it was science, that was only in the sense that scientists were making their best guesses, and admitting that it was sheer guesswork.^(2a)

Global warming caught the attention of the U.S. President's Science Advisory Committee. In 1965 they reported that "By the year 2000 the increase in atmospheric CO₂ ... may be sufficient to produce measurable and perhaps marked changes in climate..." Without attempting to say anything specific, they remarked dryly that the resulting changes "could be deleterious from the point of view of human beings."⁽³⁾ The following year, a panel of the U.S. National Academy of Sciences took a different tack, warning against "dire predictions of drastic climatic changes." Dire

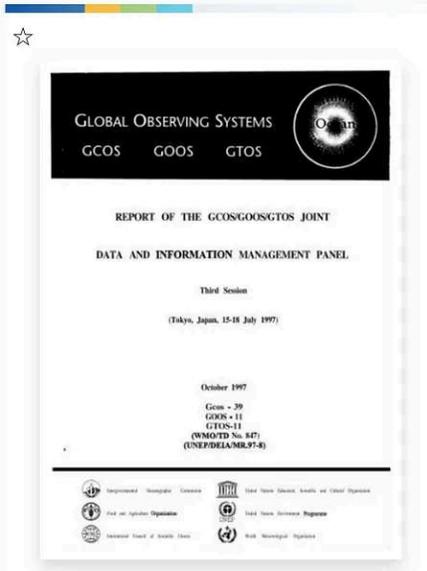
predictions of one or another imminent climate catastrophe had in fact been a staple of the popular press for decades, as magazines, books and other media peddled colorful speculations of every variety. The Academy panel expected no extraordinary climate change in their lifetimes. As for the long run, they remarked that the geological record showed swings of temperature comparable to what the greenhouse effect might cause, and "although some of the natural climatic changes have had locally catastrophic effects, they did not stop the steady evolution of civilization."⁽⁴⁾

That was not entirely reassuring. Concern grew among the few scientists who paid attention to climate theories. Meanwhile the rise of environmentalism was raising public doubts about the benefits of human activity for the planet; smoke in city air and pesticides on farms were no longer tokens of "progress" but instigators of regional or even global harm. A landmark study on "Man's Impact on the Global Environment," conducted at the Massachusetts Institute of Technology in 1970, suggested that greenhouse warming might bring "widespread droughts, changes of the ocean level, and so forth," but could not get beyond such vague worries.⁽⁵⁾ A meeting in Stockholm the following year came to similar conclusions, and added that we might pass a point of no return if the Arctic Ocean's ice cover disappeared. That would change the world's weather in ways that the scientists could not guess at, but that they thought might be serious. Their main point in bringing up the Arctic ice, however, was simply to illustrate "the sensitivity of a complex and perhaps unstable system that man might significantly alter."⁽⁶⁾

Up to this point, scientists expected that greenhouse warming, if it happened at all, would bring no serious impacts until well into the 21st century. And the 21st century seemed so far away! But was climate change really so distant? In the early 1970s the world saw vivid illustrations of climate fluctuations as savage droughts afflicted the American Midwest, devastated the Russian wheat crop and brought starvation upon millions in Africa. Studies of climate were still in their infancy, and scientists were debating whether the greenhouse effect from CO₂ emissions might be overwhelmed by the cooling caused by other forms of pollution. A few scientists speculated that industrial emissions of aerosols might cause severe cooling, while others suspected that natural cycles might bring a new ice age within the next few centuries. Nobody knew whether warming or cooling was more likely.

- **1950 The World Meteorological Organisation ¹³.**

From early on called for satellite surveillance; worked on proposals leading to (*Global Observation*) GCOS/GOOS/GTOS ¹⁴.



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GCOS -39

Report of the GCOS/GOOS/GTOS Joint Data and Information Management Panel: third session

WMO/TD-No. 847

Collection(s) Technical > Technical Documents (discontinued); Technical > Specialized programme publications

Author(s) World Meteorological Organization (WMO); United Nations Environment Programme (UNEP); International Council for Science (ICSU); Food and Agriculture Organization (FAO); Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (IOC-UNESCO)

GCOS/GOOS/GTOS Joint Data and Information Management Panel, 3rd session (15-18 July 1997)

Published by WMO

Published in Geneva

Year published 1997

- 1955 Plass's Carbon Dioxide Theory of Climatic Change [15](#).

Although first speaking of his theory in 1953, his pivotal paper was released in 1955. This marked the conceptual launch of contemporary climate zealotry.

The Carbon Dioxide Theory of Climatic Change

By GILBERT N. PLASS

The Johns Hopkins University, Baltimore, Md.¹

(Manuscript received August 9 1955)

Abstract

The most recent calculations of the infra-red flux in the region of the 15 micron CO_2 band show that the average surface temperature of the earth increases 3.6°C if the CO_2 concentration in the atmosphere is doubled and decreases 3.8°C if the CO_2 amount is halved, provided that no other factors change which influence the radiation balance. Variations in CO_2 amount of this magnitude must have occurred during geological history; the resulting temperature changes were sufficiently large to influence the climate. The CO_2 balance is discussed. The CO_2 equilibrium between atmosphere and oceans is calculated with and without CaCO_3 equilibrium, assuming that the average temperature changes with the CO_2 concentration by the amount predicted by the CO_2 theory. When the total CO_2 is reduced below a critical value, it is found that the climate continuously oscillates between a glacial and an inter-glacial stage with a period of tens of thousands of years; there is no possible stable state for the climate. Simple explanations are provided by the CO_2 theory for the increased precipitation at the onset of a glacial period, the time lag of millions of years between periods of mountain building and the ensuing glaciation, and the severe glaciation at the end of the Carboniferous. The extra CO_2 released into the atmosphere by industrial processes and other human activities may have caused the temperature rise during the present century. In contrast with other theories of climate, the CO_2 theory predicts that this warming trend will continue, at least for several centuries.

- **1956 MK Hubbert's Peak Oil** [16](#).

In what can best be described as yet another astonishing 'coincidence', the co-author of the 1936 Technocracy Study Course (*above*) suddenly realises that we are rapidly running out of oil, and to that extent strongly called for better resource management and tracking (*inventories and surveillance*).

And this of course has **nothing** to do with the utility of the above, bi-directional chemical reaction, suggesting you can approximate energy consumption through the measuring of levels of atmospheric carbon dioxide, and thus curtail global energy consumption through 'Net Zero' stabilisation.

RESEARCH ARTICLE | JUNE 01, 2023

M. King Hubbert and the rise and fall of peak oil theory

David Deming

+ Author and Article Information

- **1957 The Keeling Curve** [17](#).

Keeling's measurements marked the practical launch of the climate operation. But what was less well-known is that it was launched through Roger Revelle [18](#), who was up to his eyeballs with Rockefeller Foundation funding.

NATIONAL ACADEMIES PRESS
Biographical Memoirs: Volume 75 (1998)
Chapter: Roger Randall Dougan Revelle

Revelle was aware of the rather uninspiring and conventional research in marine biology and tried to start a revolution in the discipline in 1954 with a million-dollar grant from the Rockefeller Foundation. Five young faculty members came to the SIO to apply modern concepts and technologies from biochemistry and microbiology to ocean science. As chairman of the Oceanography and Fisheries Panel of the National Academy of Sciences' Committee on the Biological Effects of Atomic Radiation, he contributed substantially to that committee's 1956 report. He went on to the chairmanship of the U.S. National Committee for the International Biological Program in 1961.

Revelle played a key role in the creation in 1970 of the Scientific Committee on Problems of the Environment of the International Council of Scientific Unions (ICSU). It was he who suggested the objective for the ICSU's International Cooperative Biosphere Program initiated in 1986: "to describe and understand the interaction of the great global physical, chemical, and biological systems regulating planet Earth's favorable environment for life, and the influence of human activity on that environment."

Global integration of national scientific advances was high on Revelle's list of priorities. He recognized complementary needs to his goals: the non-governmental organizations affiliated with ICSU and the intergovernmental organizations under the auspices of the United Nations. The letter brought the political sectors into the scientific arena. Revelle was deeply involved in a wide variety of UN and ICSU activities for nearly four decades.

He was a prime mover in the establishment of the International Oceanographic Commission (IOC) in UNESCO in 1959, the creation by ICSU in 1958 of the Scientific Committee on Ocean Research (SCOR), and in 1960 of the Scientific Committee on Problems of the Environment. As the first president of SCOR, he participated in planning the International Indian Ocean Expedition. As president of the first International Oceanographic Congress at the United Nations in the mid-1960s, the congress brought together a thousand registrants from fifty-four countries.



ROGER RANDALL DOUGAN REVELLE
March 7, 1909–July 15, 1991
BY THOMAS F. MALONE, EDWARD D. GOLDBERG, AND WALTER H. MUNK

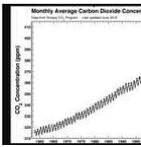
ROGER REVELLE WAS ONE of the twentieth century's most eminent scientists. His life's work personified Ernest Boyer's four categories of scholarship: discovery, integration, dissemination, and application of knowledge. He brought his talents in these categories to bear on the study of the planet we inhabit and our interaction with that planet. His interests and intellectual reach spanned the physical, biological, and social sciences, engineering, and the humanities. He enhanced the status of oceanography in world science, pioneered in the study of global warming, and brought a fresh approach to issues of population, world poverty, and hunger. Revelle was an inspiring leader of scientific enterprises and an insightful and sagacious educator. He was the intellectual architect for the creation of a great university. He excelled in the communication of science and its implications to

MAKING GLOBAL WARMING GREEN: CLIMATE CHANGE AND AMERICAN ENVIRONMENTALISM, 1957-1992

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF HISTORY AND THE COMMITTEE ON GRADUATE STUDIES OF STANFORD UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Joshua P. Howe
July 2010

For Revelle and Suess, the only immediate danger in this grand experiment was that it might not be adequately monitored and documented.¹⁷ Revelle took steps to ensure that it was. Taking advantage of resources available to him as the president of the Scientific Committee on Ocean Research (SCOR), a committee of the International Council of Scientific Unions (ICSU), Revelle designed an atmospheric monitoring program for the 1957-58 International Geophysical Year (IGY).¹⁸ In July of 1956, Scripps hired Charles David Keeling, a geochemist focused on measuring atmospheric CO₂, and in 1957 Revelle set him up with IGY funds and put him in charge of the new IGY atmospheric monitoring program.¹⁹ Keeling established CO₂ monitoring stations at the Mauna Loa Observatory in Hawaii and at a research post in Antarctica in order to establish a baseline measurement of atmospheric CO₂ that could be used to measure future changes.²⁰ In 1957, the amount of CO₂ in the atmosphere across the globe stood at



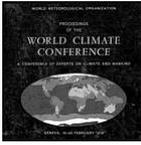
The Keeling Curve

ESC • JANUARY 25, 2024

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- 1957 World Ozone Network [19](#).

Would later go to discover the *alleged* hole in the Ozone layer.



The World Climate Conference

DECEMBER 13, 2024

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- 1961 International co-operation in the peaceful uses of outer space [20](#).

Announced immediately before Christmas, this called for the use of satellite communications with the ICSU, UNESCO and ITU in lead roles, for sakes of ‘*advancing the state of atmospheric science*’... incidentally coinciding with the CIA piloting CORONA spy satellites [21](#).

6 **General Assembly—Sixteenth Session**

to increase the difficulties of avoiding war and of establishing international peace and security based on the rule of law.

Believing in the necessity of an international agreement, subject to inspection and control, whereby the States producing nuclear weapons would refrain from relinquishing control of such weapons to any nation not possessing them and whereby States not possessing such weapons would refrain from manufacturing them,

1. *Calls upon* all States, and in particular upon the States at present possessing nuclear weapons, to use their best endeavours to secure the conclusion of an international agreement containing provisions under which the nuclear States would undertake to refrain from relinquishing control of nuclear weapons and from transmitting the information necessary for their manufacture to States not possessing such weapons, and provisions under which States not possessing nuclear weapons would undertake not to manufacture or otherwise acquire control of such weapons;
2. *Urges* all States to co-operate to those ends.

1070th plenary meeting, 4 December 1961.

1721 (XVI). International co-operation in the peaceful uses of outer space.

A

The General Assembly,

Recognizing the common interest of mankind in furthering the peaceful uses of outer space and the urgent need to strengthen international co-operation in this important field,

Believing that the exploration and use of outer space should be only for the betterment of mankind and to the benefit of States irrespective of the stage of their economic or scientific development,

1. *Commends* to States for their guidance in the exploration and use of outer space the following principles:
 - (a) International law, including the Charter of the United Nations, applies to outer space and celestial bodies;
 - (b) Outer space and celestial bodies are free for exploration and use by all States in conformity with international law and are not subject to national appropriation;
2. *Invites* the Committee on the Peaceful Uses of Outer Space to study and report on the legal problems which may arise from the exploration and use of outer space.

1085th plenary meeting, 20 December 1961.

B

The General Assembly,

Believing that the United Nations should provide a focal point for international co-operation in the peaceful exploration and use of outer space,

1. *Calls upon* States launching objects into orbit or beyond to furnish information promptly to the Committee on the Peaceful Uses of Outer Space, through the Secretary-General, for the registration of launches;

Resolutions adopted on reports of the First Committee 7

D

The General Assembly,

Believing that communication by means of satellites should be available to the nations of the world as soon as practicable on a global and non-discriminatory basis,

Convinced of the need to prepare the way for the establishment of effective operational satellite communication,

1. *Notes with satisfaction* that the International Telecommunication Union plans to call a special conference in 1963 to make allocations of radio frequency bands for outer space activities;
2. *Recommends* that the International Telecommunication Union consider at that conference those aspects of space communication in which international co-operation will be required;
3. *Notes* the potential importance of communication satellites for use by the United Nations and its principal organs and specialized agencies for both operational and informational requirements;
4. *Invites* the Special Fund and the Expanded Programme of Technical Assistance, in consultation with the International Telecommunication Union, to give sympathetic consideration to requests from Member States for technical and other assistance for the survey of their communication needs and for the development of their domestic communication facilities, so that they may make effective use of space communication;
5. *Requests* the International Telecommunication Union, consulting as appropriate with Member States, the United Nations Educational, Scientific and Cultural Organization and other specialized agencies and governmental and non-governmental organizations, such as the Committee on Space Research of the International Council of Scientific Unions, to submit a report on the implementation of these proposals to the Economic and Social Council at its thirty-fourth session and to the General Assembly at its seventeenth session;
6. *Requests* the Committee on the Peaceful Uses of Outer Space, as it deems appropriate, to review that report and submit its comments and recommendations to the Economic and Social Council and to the General Assembly.

1085th plenary meeting, 20 December 1961.

E

The General Assembly,

Recalling its resolution 1472 (XIV) of 12 December 1959,

Noting that the terms of office of the members of the Committee on the Peaceful Uses of Outer Space expire at the end of 1961,

Noting the report of the Committee on the Peaceful Uses of Outer Space,¹

1. *Decides* to continue the membership of the Committee on the Peaceful Uses of Outer Space as set forth in General Assembly resolution 1472 (XIV) and to add Chad, Mongolia, Morocco and Sierra Leone to its membership in recognition of the increased membership of the United Nations since the Committee was established;
2. *Requests* the Committee on the Peaceful Uses of Outer Space to meet not later than 31 March 1962 to carry out its mandate as contained in General Assembly resolution 1472 (XIV), to review the activities provided for in resolutions A, B, C and D above and to make such reports as it may consider appropriate.

1085th plenary meeting, 20 December 1961.

1722 (XVI). Question of disarmament

The General Assembly,

Noting with concern that the continuing arms race is a heavy burden for humanity and is fraught with dangers for the cause of world peace,

Conscious of its responsibilities, under the Charter of the United Nations, for disarmament,

Recalling its resolution 1378 (XIV) of 20 November 1959, in which it called upon Governments to make every effort to achieve a constructive solution of the problem of general and complete disarmament and expressed the hope that measures leading towards the goal of general and complete disarmament under effective international control would be worked out in detail and agreed upon in the shortest possible time,

Being deeply concerned that the objectives of that resolution be achieved as early as possible,

I

Noting with satisfaction the report submitted to the General Assembly by the Union of Soviet Socialist Republics and the United States of America following their exchange of views on questions relating to disarmament and to the resumption of negotiations in an appropriate body,²

1. *Welcomes* the joint statement of the Governments of the Union of Soviet Socialist Republics and the United States of America of agreed principles for disarmament negotiations included in that report;
2. *Recommends* that negotiations on general and complete disarmament should be based upon those principles;

II

Deeming it essential that negotiations on general and complete disarmament under effective international control be resumed at the earliest possible time,

Recognizing that all States have a deep interest in disarmament negotiations,

1. *Endorses* the agreement that has been reached on the composition of a Disarmament Committee, whose membership will be: Brazil, Bulgaria, Burma, Canada, Czechoslovakia, Ethiopia, France, India, Italy, Mexico, Nigeria, Poland, Romania, Sweden, Union of Soviet Socialist Republics, United Arab Republic, United Kingdom of Great Britain and Northern Ireland and United States of America;

- 1962 International co-operation in the peaceful uses of outer space [22](#).

Requested the inclusion of NGOs into above ‘*weather*’ satellite program, ‘*forecasting*’ on a worldwide basis.

1952nd plenary meeting, 14 December 1962.
1802 (XVII). International cooperation in the peaceful uses of outer space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1801 (XVII). Question of convening a conference for the purpose of signing a convention on the prohibition of the use of nuclear and thermo-nuclear weapons.
The General Assembly, Having considered the report of the Secretary-General on the question of convening a conference for the purpose of signing a convention on the prohibition of the use of nuclear and thermo-nuclear weapons...

1952nd plenary meeting, 14 December 1962.
1803 (XVII). The Korean question.
The General Assembly, Having noted the report of the United Nations Commission for the Unification and Rehabilitation of Korea signed at Seoul, Korea, on 1 September 1962...

1804 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1805 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1952nd plenary meeting, 14 December 1962.
1806 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1807 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1808 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1809 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

1810 (XVIII). Question of Outer Space.
The General Assembly, Recalling its resolution 1721 (XVI) of 20 December 1961, on international cooperation in the peaceful uses of outer space...

• 1963 Rising Carbon Dioxide Content of the Atmosphere 23.
The first dubious 'carbon consensus' was reached at an event hosted by the Rockefeller-funded Conservation Foundation, chaired by Fraser Darling. Only two actual climate scientists contributed (Keeling and Plass, both covered above), and the resulting output document contained absolutely no references serving to back up their absurd, alarmist claims - which nevertheless went on to serve as input document for 'Restoring the Quality of Our Environment' from 1965 (below).

IMPLICATIONS of RISING CARBON DIOXIDE CONTENT OF THE ATMOSPHERE. A statement of trends and implications of carbon dioxide research reviewed at a conference of scientists... LIBRARY OF NATURAL RESOURCES AND NATURAL SCIENCE. Sponsored by THE CONSERVATION FOUNDATION.

PARTICIPANTS IN THE CONFERENCE. F. FRASER DARLING, CHAIRMAN - Vice President, The Conservation Foundation, New York, New York. EDWARD S. DEEVEY, Department of Biology, Yale University, New Haven, Connecticut. ERIC ERIKSSON, International Meteorological Institute, Stockholm, Sweden. GILBERT N. PLASS, Associate, Division of Earth Science, University of California, San Diego, California. LIONEL WALFORD, Adm. Serv. Lab., U.S. Fish & Wildlife Service, Washington, D.C., California. WILLIAM A. GARNETT, Photographer - Napa, California. SAMUEL H. ORDWAY, JR., President, The Conservation Foundation, New York, New York. GEORGE E. BREWER, JR., Vice-Adm. of The Conservation Foundation, New York, New York. WALLACE D. BOWMAN, Executive Assistant, The Conservation Foundation, New York, New York. NOEL D. EICHORN, Associate, The Conservation Foundation, New York, New York. JOHN P. MILTON, Associate, The Conservation Foundation, New York, New York.

The recent systematic atmospheric analyses for CO2 which began during the International Geophysical Year show consistent increases each year for all parts of the earth. The current rate of increase averages 0.7 ppm per year or about 0.2 percent. The combustion of fossil fuels at current rates adds the equivalent of 1.6 ppm of CO2 to the atmosphere each year and must therefore be considered to be contributing to the net increase. However, there may be other large sources of CO2 which are not so easy to distinguish and which are masked by the increase due to the burning of fossil fuels. All known reserves of fossil fuel were used within the next 50 years, a very reasonable assumption, and if the CO2 system reaches CaCO3 equilibrium, reducing atmospheric CO2 to a minimum - a condition not likely to be reached for several thousand years - then the CO2 content of the atmosphere would be four times what it is at present and the average surface temperature of the earth would have risen by 7°C. (The possible change in CaCO3 equilibrium is not reached as is a 7°C rise.) A change even half this great would be more than sufficient to cause vast changes in the climate of the earth: the polar ice caps would almost surely melt, inundating many densely settled coastal areas, including the cities of New York and London. If the temperature of the equatorial regions were to rise by this amount many life forms would be annihilated both on land and in the sea. The average temperature of the oceans, now maintained at 4°C by the ice caps, would rise by at least 15 or 20 centigrade degrees, largely wiping out the world's present commercial fisheries. There has been a well documented warming of oceans of the northern hemisphere (about 2°C in the North Atlantic) during the twentieth century, the period of rapidly growing use of fossil fuels, but the temperature rise is too large to be

There are important parts of the CO2 problem which will continue to be studied. Most oceanographic institutions will continue to have CO2 determinations in sea water made as a routine part of their work. There is considerable interest now in the radiation flux of the earth and in the general circulation of the atmosphere and active research in these fields should continue for a long time. There is a need for a watchdog. The effects of the continuing rise in atmospheric CO2 while not now alarming are likely to become so if the rise continues. A committee of the National Academy of Sciences, National Research Council, might be charged with exploring the problem of the changing components of the atmosphere. Arousing public interest in the effects of the increase in atmospheric CO2 is as much a problem as the lack of adequate data. Without the support of informed public opinion funds for research will not be available. Even a limited monitoring program has value as a constant demonstration that the amount of CO2 in the atmosphere is continuing to rise. The lack of quantitative knowledge of the biosphere. An exact knowledge of the role of the biosphere in the CO2 system is now impossible because of lack of knowledge of the biosphere itself. The distributions of marine species, even commercial species, have been very poorly studied and the

The Conservation Foundation. ESC • JANUARY 31, 2024. Read full story ->

• 1963 The Contingency Valuation Model 24.
The valuation of recreational services began with a report out of Resources for the Future, incidentally the recipients of almost comedic levels of Ford and Rockefeller Foundation funding.

RECREATION PLANNING AS AN ECONOMIC PROBLEM

ROBERT K. DAVIS*

We are confronted on all sides these days with projections showing the immense scale of our future needs for outdoor recreation. There can be little doubt that in the coming years many millions of dollars will be invested in space and facilities for outdoor recreation—many more millions than have been invested in the past. Much of this, as in the past, will be public investment. We have a right to wonder if these immense quantities of new funds will be allocated among alternative recreation facilities in a way leading to the highest achievable social satisfaction. Assuming that society knows how much of a limited public budget it wants to assign to outdoor recreation development, the question is whether the agencies in charge of spending the funds can allocate them with optimal results. The answer depends on how well the decision makers can perceive the values to society of different amounts and kinds of recreation areas and facilities.

In a market economy the market process serves as an information medium in transmitting to producers the qualitative and quantitative desires of consumers; these desires influence, in turn, the variety and amount of products marketed.

Where public expenditures produce consequences having value in the market, money measures of value are used to express the social values of the end products of the expenditure. In such cases primary benefits of an expenditure are the beneficiaries' willingness to pay for its immediate consequences. Conceptually, each beneficiary will pay an amount not exceeding the value of the project to him. Total project benefits are the beneficiaries' willingness to pay summed over all beneficiaries.

The burden of this exposition is that market measures of project evaluation, as summarized in benefit-cost analysis, are the most useful of ranking functions for most classes of recreation planning problems. Use of this efficiency ranking function is stymied by a virtual absence of ready-made market prices, but this need not dissuade us from attempting to approximate market indicators. The remainder of this article will discuss the virtues and uses of economics in recreation planning and suggest some approaches to getting needed data.

Economics is useful at all levels of choice, from allocating the total share of public funds to recreation programs or choosing kinds and locations of areas, down to detailed decisions about developing a particular recreation tract. We

* Resources for the Future, Inc. The opinions expressed in this article do not necessarily reflect those of the organization.
Some helpful comments were made by Jerry Milliman and Jack Knetsch on an earlier draft.

shall use the ultimate level of decision-making in an economic approach to recreation planning.

I

MARKET AND NON-MARKET CRITERIA

Consider the plight of a resource manager who receives funds to be spent for the development of recreation areas on his timber management unit. Whereas the relative market prices of the kinds and grades of timber, together with the producing capacity of the tract, determine what species are to be favored and how much effort goes into their production, he must find other sources of guidance in deciding what kinds and grades of recreation areas to produce. He has several choices. He may follow his own professional notion of what is best—a combination of his professional training, administrative standards and personal tastes. Secondly, he may decide there are no real differences in social value between different kinds of development and then proceed to produce the greatest amount of capacity possible with the funds allocated. Thirdly, he may try to find out what the market would tell him, if one existed, and act accordingly.

Let us make the example concrete. Suppose there are three possible combinations of location and type of development. *A* costs \$800 per unit, *B* costs \$1300, and *C* costs \$1900. Clearly, maximum capacity from a given budget can be secured by investing in *A*. Stretching the budget to serve as many persons as possible may be consistent with the vote maximizing nature of the political process.¹ We can have little comfort that *A* provides the best satisfaction for the money without knowing something about its results.

Considering the effects of *A*, *B*, and *C* on the ecology of the area, or their efficacy in concentrating people to minimize management problems, or their acceptability to a strong interest group, may lead our decision maker to favor *B* as the best choice. Without more information there is no assurance that this professional-administrative judgment is in the best interests of society.

The needed information is how many users will patronize each alternative and how much each user will pay for his visit. The total volume of use and user willingness to pay, projected over the life of each investment and discounted by some acceptable rate of interest, gives us product values comparable to the costs (which also account for the present value of all annual maintenance costs). If total willingness to pay or gross benefits are \$1000, \$1300, and \$2800 for *A*, *B*, and *C* respectively, a little calculation will show that *C* produces the highest social profit per unit.

We can say we have observed results from three different ranking functions: a capacity function, an administrative function and an economic function. Their

1. See Downs, *An Economic Theory of Democracy* (1957).

- 1963 Towards a Conservation Ethic [25](#).

It wasn't yet a full, planetary ethic. But the ever-conflicted (*Rockefeller funded*) Conservation Foundation yet again delivered when it mattered.

Towards a Conservation Ethic

George E. Brewer, JR. [View all authors and affiliations](#)Volume 64, Issue 4 | <https://doi.org/10.1177/016146816306400403>

Towards A Conservation Ethic

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AT THE MOMENT we deliberately place restraints upon our actions, we give up a morsel of freedom, and by this sacrifice we establish certain standards of behavior which we believe are conducive to desirable and civilized living. The limitations we place upon our behavior may result from purely pragmatic considerations like fear of punishment, or they may derive from economic or aesthetic considerations or from our personal or collective judgments as to what constitutes social or antisocial conduct.

This last possibility marks the beginnings of an ethical concept—an articulation of the values we hold and are ready to defend, especially as they relate to our behavior toward our fellow men. In this discussion, I should like to extend the concept of ethics so that it embraces not only human society but the entire biotic community.

Only yesterday, as we measure the total human enterprise, man emerged from the forest and, armed with the weapon of fire, began to clear the land around its edges and to cultivate his first crops. Somewhat later, he learned how to domesticate animals for his own use, either for food or for heavy labor. This gradual shift from man the hunter and food gatherer to man the pastoralist and food producer is sometimes called the Neolithic Revolution; it occurred only 10,000 to 12,000 years ago.

STONE AGE ECOLOGY

Depending upon where he lived and upon the shifting climatic conditions, he must have regarded the sun itself as an all-powerful and mysterious object to be respected and feared or respected and loved. If there is validity in Thomas Carlyle's definition of religion—that it consists in what a man truly believes to be his relation with the mysterious universe about him—it is no wonder that man's earliest religious concepts centered about the sun and stars and the overpowering forces of nature, and that pantheism is common to both Greek and Norse mythology.

The whole body of pagan mythology reflected very definite attitudes and beliefs regarding the forces and phenomena of the natural world, benign and hostile. Personified, some natural events became identified with beneficent gods, others with malignant demons. From the early attitudes of love and fear came later beliefs about good and evil. But there was always a close and personal identification between these early men and the natural world which either smiled or threatened or was hugely indifferent.

Until the Neolithic Revolution occurred, prehistoric man exerted only a minor ecological influence upon his environment, although he had invented the bow and other crude wood and stone tools and weapons, and he undoubtedly knew how to make and control fire. As Marston Bates (1) has said, man must have acquired an extraordinarily detailed knowledge of the plants and

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Sage recommends:

- 1964 International Biological Programme ²⁶.

Heavily influenced by the PEP and WWF associated Max Nicholson, this served a precursor to UNESCO's Biosphere Reserves, related surveillance, Systems Ecology, and even Ecosystem Approach landscape management techniques.



Conservation Compromises: The MAB and the Legacy of the International Biological Program, 1964–1974

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Abstract. This article looks at the International Biological Program (IBP) as the predecessor of UNESCO's well-known and highly successful Man and the Biosphere Programme (MAB). It argues that international conservation efforts of the 1950s, such as the MAB, must in fact be understood as a component of two opposing attempts to reform international conservation in the 1960s. The scientific framework of the MAB has its origins in disputes between high-level conservationists affiliated with the International Union for the Conservation of Nature and Natural Resources (IUCN) about what the IBP means for the future of conservation. Their respective visions entailed different ecological philosophies as much as diverging sets of political ideologies regarding the global implementation of conservation. Within the IBP Conservation Section, one group propagated a universal systems approach to conservation with a centralized, technocratic management of nature and society by an elite group of independent scientific experts. Within IUCN, a second group based their notion of environmental expert roles on a more descriptive and local ecology of resource mapping as promoted by UNESCO. When the IBP came to an end in 1974, both groups' ecological philosophies played into the scientific framework underlying the MAB's World Network of Biosphere Reserves. The article argues that it is impossible to understand the course of conservation within the MAB without studying the dynamics and discourses between the two underlying expert groups and their respective visions for reforming conservation.

Keywords: International Biological Program, Max Nicholson, Raymond Dasmann, International Union for the Conservation of Nature, Man and the Biosphere Program
Abbreviations: IBP: International Biological Program; IBPCT: IBP's Section for the Conservation of Terrestrial Communities; ICSU: International Council of Scientific Unions; IUCN: International Union for the Conservation of Nature and Natural Resources; IUPN: International Union for the Protection of Nature; MAB: Man and the Biosphere Program of UNESCO; SCIBP: Special Committee for the International Biological Program; UNCIE:

science-based conservation, leading to the still-existing World Network of Biosphere Reserves.

Ideas for an International Program on Biology

Ideas for a big science program in biology appealed mainly to those conservationists of the 1960s who believed that science, ecology in particular, held the key to successful nature protection. Since the 1940s, the main organization for international conservation, the International Union for the Protection of Nature (IUPN) had been referring to ecology as its scientific underpinning. Institutionally this was manifested in 1954 by the creation of a Commission on Ecology and with the employment of a first staff ecologist in the form of the Berkeley wildlife zoologist Lee Talbot. This emphasis on science-based conservation methods was accompanied by a conscious dissociation from all romanticized preservation endeavors.¹ A name change to International Union for the Conservation of Nature and Natural Resources (IUCN) in 1956 proclaimed the new focus on natural resource management (Holdgate, 1999, p. 63). When in 1960, large-scale projects in Africa and Asia had brought in research grants from the National Science Foundation, IUCN's President, the Swiss zoologist Jean George Baer, proudly announced that the Union had officially been recognized as a scientific organization (Baer in IUCN, 1960, p. 22).

Despite Baer's enthusiasm, however, those conservationists who promoted science-based approaches were by no means acting in concert. IUCN lacked a common focus, a unifying idea of ecology and a consensus on how to implement conservation measures on a global scale. Within the Union different ideas circulated on the consequences that the aspired identification should have for the content of IUCN's conservation projects. Diverging interests between those proposing a focus on ecosystems and those conservationists in the older preservationist tradition concerned with individual threatened species in particular regions, became more palpable.

Whereas ecosystem conservation was a rather young field of research, the protection of species was firmly rooted within IUCN's program. IUPN had started with the collection of data on threatened species in the 1940s. By the 1960s, the *Red Data Book of Threatened*

¹ William Cronon, for instance, has described how the echo of an unquantifiable glorification of wilderness that underlay North America's early conservation movement could be heard well into the twentieth century (Cronon, 1991, p. 71; see Lewis, 2007).

Species by the Species Survival Commission had become a cornerstone in the Union's program (Boardman, 1981, p. 51). With many former colonial regions that contained focal points for conservation moving towards independence, a number of leading IUCN conservationists saw the main area of operation of the international Union in the Southern Hemisphere. Projects such as the Union's Species Survival Commission expedition to the Near and Middle East, Africa and Asia, and its resulting report, *A Look at Threatened Species* were part of these initiatives (Talbot and IUCN, 1966). As a consequence, and to the dismay of the proponents of ecosystem conservation, a large number of the Union's efforts focused on traditional, formerly colonial conservation areas in the African and Asian continent, which were home to charismatic animals (e.g. Adam, 2014; Tilley, 2011).

Around 1960, in the spirit of the large-scale international science programs of the time and in the climate of growing global concerns about shrinking natural resources, the first ideas for an international program for biology were developed. Conservationists of all camps within IUCN perceived this as an opportunity to enhance their recognition within the international biological community. Originally, the program was to build on advancements in the life and geo-sciences brought about by the International Geophysical Year of 1957 (Coleman, 2010, p. 2). Although the initiators behind the IBP were not conservationists, conservation experts managed to gain a foothold in the IBP's preparation process (Worthington, 1983, p. 140).² At a planning meeting in Lisbon in 1960, IUCN's President Baer, who was acquainted with one of the Program's founders through the International Union for Biological Sciences, suggested the study of immediately threatened biological communities as one suitable topic for an International Biological Program (Waddington in Worthington, 1975, p. 4).

His proposal fell on sympathetic ears. When IBP was formally launched in 1963 at the International Council for Scientific Unions (ICSU)'s tenth General Assembly in Vienna, an international Conservation Section (IBPCT) constituted one of seven international sub-committees. The other sub-committees, a central executive board, the Special Committee (SCIBP), were organized on a non-governmental

basis (Worthington, 1975, pp. 7–8).³ They consisted of only of scientific members, a set-up that seemed to provide an opportunity for the well-networked conservation experts of IUCN to get involved. Yet, in contrast to Baer's original ideas, a number of conservationists in favor of ecosystem conservation on a worldwide basis hoped that the IBP would offer incentives to IUCN conservationists for reforming away from a narrow preservationist agenda.

Despite the agreement on the usefulness of an international program on biology and its relevance for conservation, uncertainties about the relation between the objectives of IBP and IUCN caused a substantial amount of friction. The undefined role that IUCN would have within IBP resulted in "considerable discussion" between Nicholson, Edward Graham, the Chairman of IUCN's Ecology Commission, Sir Hugh Elliot, the IUCN's Secretary General and Barton Worthington, the IBP's Scientific Director, regarding the sort of affiliation it should have with the IBPCT (Nicholson, 1965c). Eventually, on October 14, 1965 the IBPCT section, staffed with several IUCN members, published its program in the *New Scientist*.⁴ The program clearly focused on ecosystem conservation and research. At the core of the endeavor was the construction of "a world network of research reserves" (Graham, 1965, p. 127). Unlike traditional conceptualizations of national parks, this idea of a scientific network of reserves for ecosystem research was

² In total, the IBP consisted of seven sub-sections, two others on productivity of terrestrial communities and plants (PT and PP), one on each freshwater (PF) and marine productivity (PM), a section of human adaptability (HA), and a final more practically oriented section on applied biology (UB).

³ Nicholson presented his sub-committee at the second IBP General Assembly in Paris in 1965. All members had some affiliation with IUCN. Amongst others, the section comprised the British Duncan Poole, Arthur Clapham, Gregory Radford, and George Peckert, Nicholson's disciples from the Nature Conservancy and the Antarctic scientist Maria Hodgson. Moreover, with Lee Talbot who had been IUCN's first staff ecologist, the Smithsonian ecologist Edward Graham and Raymond Fosberg, and the German-American botanist Diem Müller-Dombois, the CT section also had a strong American influence. Other well-known names included the Soviet zoologist Andrei Baimkov, the geologist Walecy Górecki and the botanist Anna Melchowska-Korras from Poland, the Ecuadorian botanist Miguel Acosta-Solis, and the French naturalist Jean Dorst. The Egyptian botanist Mohamed Kassaï joined a few years later. Most of them had studied at renowned European or American universities, had significant field experience and could draw on extensive national and international research networks. Thus, they could provide the IBPCT in London with the access to the relevant science communities and regions that was needed to run an international program as poorly funded as the IBP (Nicholson, 1966b). Nicholson later recalled how the IBPCT could "replicate" IUCN's scientific network, and could "work" through established conservation bodies in certain countries "such as Great Britain (Nicholson in Worthington, 1975, pp. 12–13).

outer space was progressing rapidly.

Global atmosphere research (*the GARP*)

In 1962, following the successes of the 1957/58 International Geophysical Year, the UN General Assembly formally invited ICSU to work alongside the World Meteorological Organisation in developing a programme of research on atmospheric science. ICSU and WMO appointed a committee to plan what became the Global Atmosphere Research Programme (GARP), which was launched as a joint ICSU/WMO programme in 1967.

The Global Atmosphere Research Programme was important particularly for its early recognition of the new science that could be done with satellites for continuous, global observation of the Earth and with computers for modeling global atmosphere circulation. It produced some visionary collaborative experiments and results, notably the Atlantic Tropical Experiment. This delivered new insights into the ways in which tropical weather systems are organized and their links with the overall tropical circulation and with variations in surface temperature and other properties of the ocean. It led on to the highly successful 1979 Global Weather Experiment which laid the scientific foundation for redesign of the WMO's operational World Weather Watch.

As a result of these efforts the climate science agenda grew to the point where, in 1978, ICSU, WMO and UNEP jointly organized an international workshop on climate issues, hosted by the International Institute for Applied System Analysis (IASA) in Vienna. This led to the first World Climate Conference in Geneva in 1979, sponsored by ICSU, WMO and other key partners. Here, 300 scientists from 50 countries considered the scientific evidence, and confirmed the long-term significance for global climate of atmospheric CO₂ levels, and the important role of the oceans in driving the natural variability of climate on seasonal to inter-annual timescales. This prompted ICSU and WMO to bring the Global Atmosphere Research Programme to a close in 1980 and in its place set up the World Climate Research Programme¹ (WCRP), with the broad objectives of determining how far climate can be predicted and the extent of human influence on climate.

- 1968 The UNESCO Biosphere Conference [30](#).

Recommendation 6 specifically calls for *global environmental surveillance*, but all 20 are simply breathtaking considering its penning in 1968. The 20 further span *resource inventories*, with *compatible data standards* (R4-5), *biosphere reserves* (R15), *environmental education* (R9-13), *zoonotic disease impact*, *environmental change*, and the *establishment of man's well-being and his balance with nature* (R2-3).



The 1968 Launch Event

ESC • JANUARY 24, 2024

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Use and Conservation of the Biosphere

ESC • JANUARY 6, 2024

[Read full story →](#)

- 1968 Standard Research Institute badly *mispredicts* the year 2000 [31](#).

'Significant temperature changes are almost certain to occur by the year 2000 and these could bring about climatic changes'

There are many, many terrible predictions, but this one is important given various events coinciding in that same year. The mention of Roger Revelle further is of note, as he received a \$1m grant courtesy of the Rockefeller Foundation in 1954 - which, at the time, constituted a colossal amount of money.



Final Report

February 1968 ✓
**SOURCES, ABUNDANCE, AND FATE
OF GASEOUS ATMOSPHERIC POLLUTANTS**

Prepared for:

AMERICAN PETROLEUM INSTITUTE
1271 AVENUE OF THE AMERICAS
NEW YORK, N.Y. 10020
ATTN: MR. W. A. BURHOUSE
ASSISTANT DIRECTOR

By: E. ROBINSON AND R. C. ROBBINS
///

SRI Project PR-6755

14007

Approved: N. K. HIESTER, DIRECTOR
CHEMICAL DEVELOPMENT AND ENGINEERING DIVISION

45

With regard to sea level changes, if 1000 years were required to melt the Antarctic ice cap, the resulting 400 foot rise in sea level would occur at a rate of 4 feet per 10 years. This is 100 times greater than presently observed changes.

Changes in ocean temperature would change the distribution of fish and cause a retreat in the polar sea ice. This has happened in recent time on a very limited scale.

Changes in CO₂ might also bring about increased photosynthesis in areas where CO₂ might be a limiting factor in present growth patterns. Where temperature has been a limiting factor to growth and development, an increase in biological activity might be expected.

Although there are other possible sources for the additional CO₂ now being observed in the atmosphere, none seems to fit the presently observed situation as well as the fossil fuel emanation theory.

C. Summary of Carbon Dioxide in the Atmosphere

In summary, Revelle makes the point that man is now engaged in a vast geophysical experiment with his environment, the earth. Significant temperature changes are almost certain to occur by the year 2000 and these could bring about climatic changes.

Since Revelle's report, McCormick and Ludwig (1966) have studied the possible world-wide change of atmospheric fine particles. An increase in fine particulate material will have the effect of increasing the reflectivity of the earth's atmosphere and reducing the amount of radiation received from the sun. Thus this effect would be the opposite of that caused by an increase in CO₂. The argument has been made that the large-scale cooling trend observed in the northern hemisphere since about 1955 is due to the disturbance of the radiation balance by fine particles and that this effect has already reversed any warming trend due to CO₂.

- 1969 Scientific Committee on Problems of the Environment (SCOPE) [32](#). Debated at the ICSU General Assembly in 1968, the Scientific Committee on Problems of the Environment formally launched in 1969. Viktor Kovda of the Soviet Union is an early, influential senior member.

In 1969 ICSU created a special committee to deal with environmental problems. That group, as reported by Martin Holdgate, concentrated upon a few issues of clearly global significance. In trying to bring to bear the best available thinking, it drew upon each of the interested scientific unions in the ICSU family, and invited participation from those national academies of science that are members of ICSU. Similar efforts had been launched on questions of the oceans (the Scientific Committee on Ocean Research) and of Antarctica (the Scientific Committee on Antarctic Research). Instruments for fostering joint work thus far are in the formative stage, but they provide a machinery worthy of development, and demonstrate a capacity for cooperation with the major intergovernmental bodies in the field, principally FAO, UNEP, WMO, WHO, and UNESCO. In turn, UNEP, UNESCO, the Ford Foundation and the Rockefeller Foundation have been generous in support of the scientific unions and committees, and have helped make possible a number of ventures reported in Environmental Issues 1976.

-39-



SCOPE

ESC • DECEMBER 6, 2023

[Read full story](#) →

- 1969 The Moynihan September, 17 Memo [33](#).

Largely misreported press release not only requests worldwide monitoring (*global surveillance*) for alleged sakes of environmental protection - but explicitly requests the engagement of NATO. And at the height of the Cold War, this should have raised more than an eyebrow in Moscow.

THE WHITE HOUSE
WASHINGTON

September 17, 1969

FOR JOHN EHRLICHMAN

As with so many of the more interesting environmental questions, we really don't have very satisfactory measurements of the carbon dioxide problem. On the other hand, this very clearly is a problem, and, perhaps most particularly, is one that can seize the imagination of persons normally indifferent to projects of apocalyptic change.

The process is a simple one. Carbon dioxide in the atmosphere has the effect of a pane of glass in a greenhouse. The CO₂ content is normally in a stable cycle, but recently man has begun to introduce instability through the burning of fossil fuels. At the turn of the century several persons raised the question whether this would change the temperature of the atmosphere. Over the years the hypothesis has been refined, and more evidence has come along to support it. It is now pretty clearly agreed that the CO₂ content will rise 25% by 2000. This could increase the average temperature near the earth's surface by 7 degrees Fahrenheit. This in turn could raise the level of the sea by 10 feet. Goodbye New York. Goodbye Washington, for that matter. We have no data on Seattle.

It is entirely possible that there will be countervailing effects. For example, an increase of dust in the atmosphere would tend to lower temperatures, and might offset the CO₂ effect. Similarly, it is possible to conceive fairly mammoth man-made efforts to countervail the CO₂ rise. (E. g., stop burning fossil fuels.)

In any event, I would think this is a subject that the Administration ought to get involved with. It is a natural for NATO. Perhaps the first order of business is to begin a worldwide monitoring system. At present, I believe only the United States is doing any serious monitoring, and we have only one or two stations.

Hugh Hefner knows a great deal about this, as does also the estimable Bob White, head of the U. S. Weather Bureau. (Teddy White's brother.)

*exp in ADM-5 (max 1968)
EN*

2

The Environmental Pollution Panel of the President's Science Advisory Committee reported at length on the subject in 1965. I attach their conclusions.

Daniel P. Moynihan

Attachment - ~~xerox~~ by "Conclusions and Findings" -- Restoring the Quality of Our Environment", Nov. 1965

cc: Dr. Hefner, OST

DPM/csm

(Copy to: Chris Miller)

Central File

Robert White, Dept of Commerce

- 1971 UNESCO Man and the Biosphere [34](#).

Parent organisation of the Biosphere Reserves, which currently include an area of land the size of Australia [35](#).

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Man and the Biosphere Programme (MAB)

Man and the Biosphere Programme (MAB)

Home About MAB Our impact World Network of Biosphere Reserves Technical guidelines

What are biosphere reserves?

Biosphere reserves are 'learning places for sustainable development'. They are sites for testing interdisciplinary approaches to understanding and managing changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity. They are places that provide local solutions to global challenges. Biosphere reserves include terrestrial, marine and coastal ecosystems. Each site promotes solutions reconciling the conservation of biodiversity with its sustainable use.

Fact sheet

- The World Network of Biosphere Reserves covers all major representative natural and semi-natural ecosystems
- It spans over a surface of more than 7,442,000 km² in 134 countries. It's almost the size of Australia.
- There are about 275 million people living in Biosphere Reserves worldwide.

- 1971 Report of the Study of Man's Impact on Climate [36](#).

Claims of acid rain were hotly debated, and so₂ in many ways served as a precursor to the co₂ debate.

- **1971 Air Pollution Across National Boundaries** [37](#).

Bert Bolin contributed to this early effort on what eventually led to the CLRTAP in late 1979.

- **1971 Global Environment Monitoring (SCOPE 1)** [38](#).

SCOPE's first report was commissioned by Maurice Strong for the 1972 Stockholm event, an event which led to the United Nations Environment Programme, and thus, the Global Environment Monitoring System.



SCOPE

ESC • DECEMBER 6, 2023

[Read full story](#) →

- **1972 US-USSR Cooperation on Environmental Protection** [39](#).

Should be one of the most widely disseminated documents in contemporary history, but it lives in the shadows of the SALT Agreement and the UNCED event in Stockholm. What Moscow and Washington DC agreed to was to perform '*joint development and implementation in the fields of basic and applied sciences*' for sakes of '*controlling the impact of human activities on nature*' through the development of '*legal and administrative measures for protecting environmental quality*'.

Given contemporary trajectory, it appears highly likely this agreement should be investigated for facilitating outright treason.



Discovery

ESC • MAY 19, 2024

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COOPERATION IN ENVIRONMENTAL PROTECTION

Agreement Between the
UNITED STATES OF AMERICA
and the UNION OF SOVIET
SOCIALIST REPUBLICS

Signed at Moscow May 23, 1972



2

AGREEMENT ON COOPERATION
IN THE FIELD OF ENVIRONMENTAL PROTECTION BETWEEN
THE UNITED STATES OF AMERICA AND
THE UNION OF SOVIET SOCIALIST REPUBLICS

The United States of America and the Union of Soviet Socialist Republics;

Attaching great importance to the problems of environmental protection;

Proceeding on the assumption that the proper utilization of contemporary scientific, technical and managerial achievements can, with appropriate control of their undesirable consequences, make possible the improvement of the interrelationship between man and nature;

Considering that the development of mutual cooperation in the field of environmental protection, taking into account the experience of countries with different social and economic systems, will be beneficial to the United States of America and the Union of Soviet Socialist Republics, as well as to other countries;

3

Considering that economic and social development for the benefit of future generations requires the protection and enhancement of the human environment today;

Desiring to facilitate the establishment of closer and long-term cooperation between interested organizations of the two countries in this field;

In accordance with the Agreement between the United States of America and the Union of Soviet Socialist Republics on Exchanges and Cooperation in Scientific, Technical, Educational, Cultural, and Other Fields in 1972-1973, signed April 11, 1972, [1] and developing further the principles of mutually beneficial cooperation between the two countries;

Have agreed as follows:

ARTICLE 1

The Parties will develop cooperation in the field of environmental protection on the basis of equality, reciprocity, and mutual benefit.

ARTICLE 2

This cooperation will be aimed at solving the most important aspects of the problems of the environment and will be devoted to working out measures to prevent pollution, to study pollution and its effect on the environment, and to develop the basis for controlling the impact of human activities on nature.

It will be implemented, in particular, in the following areas:

- air pollution;
- water pollution;
- environmental pollution associated with agricultural production;

[1] TIAS 7343; 23 U.S.T.

TIAS 7345

TIAS 7345

- 1972 Stockholm UNCED [40](#).

Called for at the 1968 UNESCO Biosphere Conference, and chaired by Maurice Strong, this event launched the United Nations Environment Programme.



United Nations

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Stockholm 1972

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UN Conferences



[The Folkets Hus building (center) in Stockholm, Sweden, which hosted the United Nations Conference on the Human Environment, 16 May 1972. UN Photo/Yutaka Nagata]

United Nations Conference on the Human Environment, 5-16 June 1972, Stockholm

[Background](#)

[Documents](#)

- 1972 The International Institute for Applied Systems Analysis (IIASA) [41](#).

With an aim to *allegedly* predict the future, the IIASA are the world's premier

global modellers (*General Systems Theory*), performing Digital Twin analysis using global surveillance data.



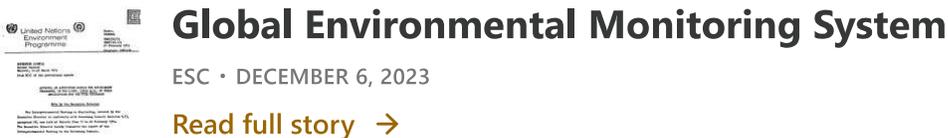
- **1973 Global Environment Monitoring System (SCOPE 3)** [42](#).

The level of detail in SCOPE's third report - *relating to surveillance on a global scale for alleged sakes of environmental protection* - is quite simply staggering.



- **1974 UNEP/GC/24** [43](#).

Early negotiations relating to GEMS were highly aggressive. So much, in fact, that a number of representatives questioned motives at high-level events. This 1974 document is further noteworthy, because they already at this stage worked to include public health surveillance.



- **1975 Belgrade Charter** [44](#).

At a time where **absolutely no legit science** existed whatsoever, and when scientists vigorously debated whether temperatures were increasing or decreasing, this charter - *in addition to leading a charge for a 'global ethic' relating to environmentalism* - also outlined '*humanity's place within the biosphere*', the role of '*The New International Economic Order*', before outlining the educational objectives, adding this was to become a '*life-long process*' and target the delivery of a '*world population aware, and concerned about, the environment*'.



Connect

Connect
Published by Unesco
7, place de Fontenoy 75700 Paris, France
Editor: Joseph Barry

UNESCO-UNEP ENVIRONMENTAL EDUCATION NEWSLETTER

Vol. I, No. 1, January 1976

There is no force greater than that of an idea whose time has come.
—Victor Hugo.

An historic moment produced an historic document. Adopted unanimously at the close of the 10-day International Environmental Education Workshop at Belgrade, 13-22 October 1975, subject to the evolution of inevitable change and improvement, the Belgrade Charter has laid down the principles and established the guidelines for the world-wide environmental education of a generation which spans the earth. No statement could be more fitting for the first number of *Connect*, the new medium for the international exchange of information on environmental education.

The Belgrade Charter

A Global Framework for Environmental Education

A. Environmental Situation

Our generation has witnessed unprecedented economic growth and technological progress which, while bringing benefits to many people, have also caused severe social and environmental consequences. Inequality between the poor and the rich among nations and within nations is growing and there is evidence of increasing deterioration of the physical environment in some forms on a world-wide scale. This condition, although primarily caused by a relatively small number of nations, affects all of humanity.

The recent United Nations Declaration for a New International Economic Order calls for a new concept of development—one which takes into account the satisfaction of the needs and wants of every citizen of the earth, of the pluralism of societies and of the balance and harmony between humanity and the environment. What is being called for is the eradication of the basic causes of poverty, hunger, illiteracy, pollution, exploitation and domination. The previous pattern of dealing with these crucial problems on a fragmentary basis is no longer workable.

It is absolutely vital that the world's citizens insist upon measures that will support the kind of economic growth which will not have harmful repercussions on people; that will not in any way diminish their environment and their living conditions. It is necessary to find ways to ensure that no nation should grow or develop at the expense of another nation and that the consumption of no individual should be increased at the expense of other individuals. The resources of the world should be developed in ways which will benefit all of humanity and provide the potential for raising the quality of life for everyone.

We need nothing short of a new global ethic—an ethic which espouses attitudes and behaviour for individuals and societies which are consonant with humanity's place within the biosphere; which recognizes and sensitively responds to the complex and ever-changing relationships between humanity and nature and between people. Significant changes must occur in all of the world's nations to assure the kind of rational development which will be guided by this new global ideal—changes which will be directed towards an equitable distribution of the world's resources and more fairly satisfy the needs of all peoples. This new kind of development will also require the maximum reduction in harmful effects on the environment, the utilization of waste materials for productive purposes, and the design of technologies which will enable such objectives to be achieved. Above all, it will demand the assurance of perpetual peace through coexistence and cooperation among nations with different social systems. Substantial resources for reallocation to meet human needs can be gained through restricting military budgets and

reducing competition in the manufacture of arms. Disarmament should be the ultimate goal.

These new approaches to the development and improvement of the environment call for a reordering of national and regional priorities. Those policies aimed at maximizing economic output without regard to its consequences on society and on the resources available for improving the quality of life must be questioned. Before this changing of priorities can be achieved, millions of individuals will themselves need to adjust their own priorities and assume a personal and individualized global ethic—and reflect in all of their behaviour a commitment to the improvement of the quality of the environment and of life for the world's people.

The reform of educational processes and systems is central to the building of this new development ethic and world economic order. Governments and policy-makers can order changes, and new development approaches can begin to improve the world's condition—but all of these are no more than short-term solutions, unless the youth of the world receives a new kind of education. This will require new and productive relationships between students and teachers, between schools and communities, and between the education system and society at large.

Recommendation 96 of the Stockholm Conference on the Human Environment called for the development of environmental education as one of the most critical elements of an all-out attack on the world's environmental crisis. This new environmental education programme must be broad based and strongly related to the basic principles outlined in the United Nations Declaration on the New International Economic Order.

It is within this context that the foundations must be laid for a world-wide environmental education programme that will make it possible to develop new knowledge and skills, values and attitudes, in a drive towards a better quality of environment and, indeed, towards a higher quality of life for present and future generations living within that environment.

B. Environmental Goal

The goal of environmental education is:
To improve all ecological relationships, including the relationship of humanity with nature and people with each other.

There are, thus, two preliminary objectives:
1. For each nation, according to its culture, to clarify for itself the meaning of such basic concepts as "quality of life" and "human happiness" in the context of the total environment, with an extension of the clarification and appreciation to other cultures, beyond one's own national boundaries.

2. To identify which actions will ensure the preservation and improvement of humanity's potentials and develop social and individual well-being in harmony with the biophysical and man-made environment.

C. Environmental Education Goal

The goal of environmental education is:
To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.

D. Environmental Education Objectives

- The objectives of environmental education are:
1. Awareness: to help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems.
 2. Knowledge: to help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and rôle in it.
 3. Attitudes: to help individuals and social groups acquire social values, strong feelings of concern for the environment and the motivation for actively participating in its protection and improvement.
 4. Skills: to help individuals and social groups acquire the skills for solving environmental problems.
 5. Evaluation ability: to help individuals and social groups evaluate environmental measures and education programmes in terms of ecological, political, economic, social, esthetic and educational factors.
 6. Participation: to help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems, to ensure appropriate action to solve those problems.

E. Audiences

The principal audience of environmental education is the general public. Within this global frame, the major categories are:

1. The formal education sector: including pre-school, primary, secondary and higher education students as well as teachers and environmental professionals in training and retraining;
2. The non-formal education sector: including youth and adults, individually or collectively, from all segments of the population, such as the family, workers, managers and decision-makers, in environmental as well as non-environmental fields.

F. Guiding Principles of Environmental Education Programmes

The guiding principles of environmental education are:

1. Environmental education should consider the environment in its totality—natural and man-made, ecological, political, economic, technological, social, legislative, cultural and esthetic.
2. Environmental education should be a continuous life-long process, both in-school and out-of-school.
3. Environmental education should be interdisciplinary in its approach.
4. Environmental education should emphasize active participation in preventing and solving environmental problems.
5. Environmental education should examine major environmental issues from a world point of view, while paying due regard to regional differences.
6. Environmental education should focus on current and future environmental situations.
7. Environmental education should examine all development and growth from an environmental perspective.
8. Environmental education should promote the value and necessity of local, national and international cooperation in the solution of environmental problems.

• 1975 Newsweek/NOAA - The Cooling World.

Though contemporary climate alarmists will deny, instead claiming it was the output of tabloid media, credible climate acolytes believed temperatures were dropping at the time. There's even an episode of Twilight Zone on this topic.

The Cooling World

Reprinted from "Newsweek," p. 64, April 28, 1975

Editor's note: Here's what the politically-correct science community was saying 29 years ago about human influence on global climate. Note the doom-and-gloom forecasts, substantiated by highly credible scientists and scientific institutions. The similarity to today's hype is remarkable, and no doubt, just as accurate. This article is shared by the [Science and Environmental Policy Project](#).

There are ominous signs that the Earth's weather patterns have begun to change dramatically, and that these changes may portend a drastic decline in food production - with serious political implications for just about every nation on Earth. The drop in food output could begin quite soon, perhaps only 10 years from now. The regions destined to feel its impact are the great wheat-producing lands of Canada and the U.S.S.R. in the North, along with a number of marginally self-sufficient tropical areas - parts of India, Pakistan, Bangladesh, Indochina and Indonesia - where the growing season is dependent upon the rains brought by the monsoon.

The evidence in support of these predictions has now begun to accumulate so massively that meteorologists are hard-pressed to keep up with it. In England, farmers have seen their growing season decline by about two weeks since 1950, with a resultant overall loss in grain production estimated at up to 100,000 tons annually. During the same time, the average temperature around the equator has risen by a fraction of a degree - a fraction that in some areas can mean drought and desolation. Last April, in the most devastating outbreak of tornadoes ever recorded, 148 twisters killed more than 300 people and caused half a billion dollars' worth of damage in 13 U.S. states.

To scientists, these seemingly disparate incidents represent the advance signs of fundamental changes in the world's weather. Meteorologists disagree about the cause and extent of the trend, as well as over its specific impact on local weather conditions. But they are almost unanimous in the view that the trend will reduce agricultural productivity for the rest of the century. If the climatic change is as profound as some of the pessimists fear, the resulting famines could be catastrophic. "A major climatic change would force economic and social adjustments on a worldwide scale," warns a recent report by the National Academy of Sciences, "because the global patterns of food production and population that have evolved are implicitly dependent on the climate of the present century."

A survey completed last year by Dr. Murray Mitchell of the National Oceanic and Atmospheric Administration, reveals a drop of half a degree in average ground temperatures in the Northern Hemisphere between 1945 and 1968. According to George Kukla of Columbia University, satellite photos indicated a sudden, large increase in Northern Hemisphere snow cover in the winter of 1971-72. And, a study released last month by two NOAA scientists notes that the amount of sunshine reaching the ground in the continental U.S. diminished by 1.3% between 1964 and 1972.

To the layman, the relatively small changes in temperature and sunshine can be highly misleading. Reid Bryson of the University of Wisconsin, points out that the Earth's average temperature during the great Ice Ages was only about seven degrees lower than during its warmest eras - and that the present decline has taken the planet about a sixth of the way toward the Ice Age average. Others regard the cooling as a reversion to the "little ice age" conditions that brought bitter winters to much of Europe and northern America between 1600 and 1900 - years when the Thames used to freeze so solidly that Londoners roasted oxen on the ice, and when iceboats sailed the Hudson River almost as far south as New York City.

Just what causes the onset of major and minor ice ages remains a mystery. "Our knowledge of the mechanisms of climatic change is at least as fragmentary as our data," concedes the National Academy of Sciences report. "Not only are the basic scientific questions largely unanswered, but in many cases we do not yet know enough to pose the key questions."

Meteorologists think that they can forecast the short-term results of the return to the norm of the last century. They begin by noting the slight drop in overall temperature that produces large numbers of pressure centers in the upper atmosphere. These break up the smooth flow of westerly winds over temperate areas. The stagnant air produced in this way causes an increase in extremes of local weather such as droughts, floods, extended dry spells, long freezes, delayed monsoons and even local temperature increases - all of which have a direct impact on food supplies.

"The world's food-producing system," warns Dr. James D. McQuigg of NOAA's Center for Climatic and Environmental Assessment, "is much more sensitive to the weather variable than it was even five years ago." Furthermore, the growth of world population and creation of new national boundaries make it impossible for starving peoples to migrate from their devastated fields, as they did during past famines.

Climatologists are pessimistic that political leaders will take any positive action to compensate for the climatic change, or even to allay its effects. They concede that some of the more spectacular solutions proposed, such as melting the Arctic ice cap by covering it with black soot or diverting arctic rivers, might create problems far greater than those they solve. But, the scientists see few signs that government leaders anywhere are even prepared to take the simple measures of stockpiling food or of introducing the variables of climatic uncertainty into economic projections of future food supplies. The longer the planners delay, the more difficult will they find it to cope with climatic change once the results become grim reality.

• 1975 IIASA paper on Carbon Pricing ⁴⁵.

The pivotal, first paper on carbon pricing was published in 1975, courtesy of the recently established International Institute for Applied Systems Analysis.

Can We Control Carbon Dioxide?
by William D. Nordhaus *

I. Introduction
In recent years, the concern about the tradeoffs between economic growth and environmental quality have been paramount. To a large extent, the energy sector has been the locus of the major battles. For the most part, the concerns have been with local environmental problems such as disputes over air and water quality, nuclear accidents, and radioactive wastes. Although these problems have not been solved, it appears that as a result of considerable technical work that techniques exist (even if political will does not) to reduce most local environmental problems to a tolerable level.
There remain on the agenda, however, a number of global environmental problems, and again these relate mainly to the energy sector. In particular, it appears that emissions of carbon dioxide, particulate matter, and waste heat may, at some time in the future, lead to significant climatic modifications. Of these, it appears that carbon dioxide will probably be the first man-made emission to affect climate on a global scale, with a significant temperature increase by the end of the century.

* This work was performed with the support of the United States National Science Foundation and the International Institute for Applied Systems Analysis, Laxenburg, Austria. Discussions with Cesare Marchetti and Alan Murphy helped me find my way in the climatic literature; Leo Schratzenholzer skillfully programmed the model; and Mrs. Lilo Roggenland patiently typed the manuscript. None of the above are responsible for errors or opinions expressed in the paper.

Table 8 gives the shadow prices for carbon emissions for the four programs during the six periods. First note that the uncontrolled program has shadow prices equal to zero, indicating that the constraint is not binding. Second, note that the prices per ton start very low (between \$0.01 and \$0.15 per ton carbon) and rise to a very high level of between \$130 a ton (1970 prices), by the end of the next century. These should be compared with the prices of carbon-based fuels, which are around \$25 a ton (carbon weight) of coal, \$100 a ton (carbon weight) for petroleum, and \$200 a ton (carbon weight) for natural gas. Roughly speaking, the shadow price only becomes significant in the third period for the two most stringent paths (paths 3 and 4) and in the fourth period for the permissive path 2. Comparing Tables 5 and 8, we note, then, that the shadow prices are relatively low for periods when the concentration constraint is not binding and high in those cases where it is binding.
We may also ask what the effect of the carbon dioxide control program is on energy prices in general. These effects fall into two general categories: effects on factor prices-- in particular royalties on scarce energy resources; and effects on product prices. Table 9 shows the results. Note that the major impact is on factor prices rather than product prices. For example, comparing the shadow prices of the most stringent with the uncontrolled case, note that petroleum and gas shadow prices fall by about ten percent while coal and oil shale royalties fall to zero. By contrast, uranium royalties rise by an insignificant amount (about 0.1 percent) from the uncontrolled to the most stringent program.

TABLE 10. DUAL VARIABLES ON EMISSIONS (DOLLARS PER TON 1970 PRICES)

	PERIOD CENTERED ON		
	1970	2045	2095
TROPOSPHERE	0.2	44	133
STRATOSPHERE	0.2	45	124
DEEP LAYER OCEAN	0.1	45	125
DEEP LAYER OCEAN	0.008	0.43	~1
SHORT-TERM LAND BIOSPHERE	0.2	45	124
LONG-TERM LAND BIOSPHERE	0.1	15	37
MARINE BIOSPHERE	0.2	42	118

• 1976 Report of the North American Regional Seminar ⁴⁶.

In spite of the existence of little legit science on the effect of carbon dioxide in the atmosphere, and with scientists in general in complete disagreement, the various international organisations started to plan the educational aspect. Included in deliberations were **brainwashing through the mainstream media**, which should also comprise **'information on alternate lifestyles'**, regardless of how absurd that would appear in context of environmental education.

THE REPORT OF THE NORTH AMERICAN REGIONAL SEMINAR ON ENVIRONMENTAL EDUCATION



A CONFRONTATION WITH THE ISSUES: ENVIRONMENTAL EDUCATION FOR THE REAL WORLD
October 5-8, 1976

edited by
JAMES L. ALDRICH
ANNE M. BLACKBURN
GEORGE A. ABEL

organized by
THE ALLIANCE FOR ENVIRONMENTAL EDUCATION

THE SEMINAR: BEFORE, DURING AND AFTER

BACKGROUND

In October 1975 one hundred and twenty representatives from sixty nations met in Belgrade, Yugoslavia, to define and discuss global environmental education needs, objectives and strategies. By the end of the ten day workshop, the fourteen state-of-the-art papers prepared for the meeting had been reviewed, and delegates had developed a statement of purpose - a challenge for global environmental education - the Belgrade Charter.

It was rightly recognized that attaining the goals and objectives contained in that document would depend upon a strong worldwide commitment, and a detailed action strategy. Therefore, the Belgrade participants also prepared an extremely complex and comprehensive series of recommendations through which implementation could be achieved. The participants knew that these strategies would have to be applied flexibly if the widely varying conditions and needs around the world were to be met. Thus a series of regional workshops were planned at which the Belgrade Charter and Recommendations could be reviewed for their appropriateness to each region, and necessary modifications and/or additions could be structured.

Although North America is a sub-region within the Unesco context, it was decided that the reactions which could be obtained from this highly educated, technologically-oriented and democratically ruled portion of the world would be valuable in defining a global strategy for environmental education. Accordingly, the participants from Canada and the United States met at the Belgrade Workshop and established the guidelines and general plan for a North American Regional Seminar. In February 1976 a contract was let to the Alliance for Environmental Education, a coalition of 53 national and regional organizations, with a membership of over 15,000,000 in the U.S. In addition to the contract from Unesco, substantial assistance was provided by the Alliance both with respect to funding and administrative support. Support was also provided through the Canadian Commission for Unesco and other Canadian agencies that provided travel funds for individual participation on the Advisory and at the Seminar. Others that provided direct funding to the Seminar project included the Conservation Education Association, Exxon Corporation, National Audubon Society, National Wildlife Federation, U.S. National Commission for Unesco, Tennessee Valley Authority and Meyerheuser Company.

The Alliance agreed to plan and conduct the North American Regional Seminar (NARS) in cooperation with the U.S. and Canadian National Commissions for Unesco. An Advisory Committee was selected that was representative of a broad range of Canadian and U.S. interests from key environmental organizations, governmental agencies, and educational institutions. Several of the committee members had attended the Belgrade Workshop.

EXISTING EDUCATIONAL PROGRAMS

Existing educational programs which should be of special significance to environmental educators are those in the overlap areas (i.e., management training; teacher in-service programs; professional technical training and retraining programs; media personnel training programs, etc.). These are especially important because they reach individuals who have a strong potential multiplier effect. Those who are taught reach other audiences and can affect change quickly. It was therefore recommended that these types of programs become a primary target into which to infuse environmental principles.

CONCEPTS

One of the work groups defined the goal of environmental education as to arrive at an ecological compatibility between man and the environment, i.e., to foster a human existence based upon an environmental ethic and a consciousness of environmental constraints. To attain this goal it was recognized that learners, whether students, teachers, voters or key officials, must move from the stage of environmental awareness to action based on environmental principles. This work group felt that this desired transition in social behavior would not only require education about environmental principles, but training in environmental action. They therefore recommended that individuals and groups be taught how to actualize and participate in environmental action through politics, the courts, consumer action, persuasion and actual eco-management.

The content themes which were suggested by the work groups as they wrestled with that needs to be taught to key target audiences showed great similarity to the themes identified in the Delphi surveys. The "key issues" most frequently cited at the Seminar were:

- population
- energy
- resource conservation
- land use
- environmental quality
- recycling
- concentration of biological diversity
- human settlements
- environmental economics
- ecology
- ecological constraints

One group came up with a list of characteristics which may contribute to a well planned environmental education program. Using these suggestions, it is possible to lay out a check list for particular content themes, and select the program characteristics which are most appropriate for that topic. For some content themes like Environmental Constraints, almost all of the characteristics were relevant, but for a topic like population, "interdependence," "a global view" and "a future outlook" may be the most important characteristics to emphasize. The following chart illustrates the format that this group used:

KEY ISSUES	CHARACTERISTICS OF A WELL PLANNED EE PROGRAM											
	Interdependence	One-Size Learning Exp.	Problem Solving Tech.	Problem Prevention	Global View	Participative Outlook	Reference to Learner	Environmentally "Wholesome"	Values Clarification	Attitude Formation	Goal/Theme/Block Analysis	Budget
Population	*	*	*	*	*	*	*	*	*	*	*	*
Energy	*	*	*	*	*	*	*	*	*	*	*	*
Ecological Constraints	*	*	*	*	*	*	*	*	*	*	*	*

STRATEGIES

A number of strategies or methods for extending and improving environmental education were reported frequently by the work groups, such as:

- use of the media
- study of the environment of the work place
- use of the Delphi survey to learn what a particular target audience already knows
- use of the Delphi survey to learn the best ways to approach these target audiences (i.e., would they be most responsive to films, TV specials, newspaper ads, speakers, written materials, etc.)
- construction of examples of alternative technologies
- publicity about alternative lifestyles
- publically about environmentally related careers
- formation of local Alliance for Environmental Education cells
- work with professional societies to improve the quality of practicing and rising professionals in environmentally related fields: law, planning, engineering, education, etc.
- work towards teacher accreditation in environmental education; work towards having basic environmental education concepts and skills be a part of all teacher training.

Although there was much overlap in suggested strategies, the least consensus came from the work groups as to the applicability of these strategies to particular target audiences. This is not surprising. It is another reflection of the complexity which arises from trying to deal with the demands of non-formal environmental education.

• 1976 Bert Bolin remarks in front of US Congress ⁴⁷.

The very man leading the climate narrative in the 1970s and 1980s - Bert Bolin - made an appearance in front of the US House of Representatives; a remarkable event at which he admitted that - *apart from speculation* - not only did they in fact know very little, but what they did know was that carbon dioxide led to accelerated plant growth.

THE NATIONAL CLIMATE PROGRAM ACT

4 - FEB 23 1977

HEARINGS before the SUBCOMMITTEE ON THE ENVIRONMENT AND THE ATMOSPHERE of the COMMITTEE ON SCIENCE AND TECHNOLOGY U.S. HOUSE OF REPRESENTATIVES SIXTY-FOURTH CONGRESS SECOND SESSION

MAY 19, 20, 21, 22, 23, 1976

PRINTED FOR THE USE OF THE COMMITTEE ON SCIENCE AND TECHNOLOGY

34

The amount of carbon in tropical forests represents half- or something like half- of the total amount of carbon in the plants of the Earth, and I think one might think of being careful in this regard, even though precise numbers here again are not very well known.

Mr. Wynn: Have there been any controlled research projects in which they have been located?

Dr. Bolin: Yes, there have been many experiments in greenhouse, and there is no doubt that there is an increased growth capability in plants.

Mr. Wynn: But they can only absorb so much.

Dr. Bolin: Yes, there are limitations but we are, I think, rather far from them with the amount of carbon in a given area, you are able to optimize other conditions under which plants grow, such as nutrients and water. In nature, these things are usually not available to that extent. There are other limiting factors that are probably of greater concern than carbon dioxide.

Mr. Wynn: On page 5 of the last paragraph, you say, particularly, you say to emphasize the need for more fundamental research. That was really beyond the scope of your report, is that right?

What do you mean, exactly? Can you focus on that a little bit more?

Dr. Bolin: Yes, I can. And I can give you one example. It is to try to understand the processes that are at work in the system that stores or creates the climate of the Earth. Turning to carbon dioxide, we need to know more in order to be able to forecast what the most significant processes will be in the future, to understand better the way the oceans take up the carbon dioxide, and how this carbon dioxide in the ocean water affects the climate.

Mr. Winn: Thank you, Mr. Chairman. I thought maybe for a minute I was on the International Relations Committee.

Green plant life extracts carbon dioxide from the atmosphere in large quantities. If CO₂ is increased, can we not expect the plants to take more out and thereby restore some balance?

Dr. Bolin: In principle you are absolutely right, in that all plant life depends upon the availability of carbon dioxide in the atmosphere. Now, I wish to make two comments. First of all, the total amount of carbon which is there in the form of living plants is not much greater than—is of the same order of magnitude as—the amount of carbon dioxide in the atmosphere itself. If we now added an amount to this system that is 10 times as great, it is unlikely that the plants could really absorb a major fraction of this. They would, I suppose, be able to grow more vigorously.

Mr. Wynn: They would absorb some, but not 5 to 10 times the amount?

Dr. Bolin: Surely. But there is another much more serious concern. That is that we are offering the plant cover of the Earth in other ways, whereby we are probably decreasing the amount of carbon in plants all over the world. The present activities of cutting down trees and reducing the extension of forests, not the least in tropical regions, may indeed be contributing to an increase of carbon dioxide in the atmosphere that may not be as large as the harm that we do by burning fossil fuels, but which might not be negligible.

Dr. Bolin: What we are generally concerned with is anything that is released into the atmosphere and forms particles (the thing I know most about is the sulfur compounds).

I think this principal difference, to which I just referred, between the gas, carbon dioxide, and particulate matter in the atmosphere, is very important. That is the reason I myself am much more concerned with the carbon dioxide problem.

Now, when somebody asks me what I think about the future climate, I usually say that the best way of showing that you are not a capable climatologist is to try to make a forecast. Nevertheless, if you ask me, I am more afraid of an increase in carbon dioxide and the long time that might go with it. But this is my personal opinion as of now, and I think maybe my first statement should be considered more important.

Thank you.

Mr. EXERY: Thank you very much. I have no further questions at the present time. Thank you.

Mr. BROWN: We want to thank you very much, Professor Bolin, for

• 1976 United Nations Habitat ⁴⁸.

Among the very first documents in official UN capacity calling for the elimination of private property rights.

REPORT
OF
HABITAT: UNITED NATIONS CONFERENCE
ON HUMAN SETTLEMENTS

Vancouver, 31 May-11 June 1976



UNITED NATIONS
New York, 1976

D. Land (Agenda item 10 (d))

Preamble

13. Land, because of its unique nature and the crucial role it plays in human settlements, cannot be treated as an ordinary asset, controlled by individuals and subject to the pressures and inefficiencies of the market. Private land ownership is also a principal instrument of accumulation and concentration of wealth and therefore contributes to social injustice; if unchecked, it may become a major obstacle in the planning and implementation of development schemes. Social justice, urban renewal and development, the provision of decent dwellings and healthy conditions for the people can only be achieved if land is used in the interests of society as a whole.

271. As regards the choice of alternatives for shelter, infrastructure and services it was stated by some representatives that the choice of an alternative with a higher initial cost may be preferable in the long run when such alternative would have minimal repair and operational costs.

272. In providing services and infrastructure it was stressed that their primary health care aspects should be accorded a high priority, including recreational facilities, and that the special needs of children, the handicapped and the aged should also be fully taken into account.

Land

273. The Committee unanimously affirmed that land was a scarce resource and that, because of its unique nature and the crucial role that it plays in human settlements, it could not be treated as an ordinary asset controlled by individuals and subject to the pressures and the initiatives of the market. The pattern of land use should be determined by the long-term interests of the community, especially since decisions on location of activities and therefore of specific land uses have a long-lasting effect on the pattern and structure of human settlements. The Committee emphasized that land is also a primary element in the natural and man-made environment and a crucial link in an often delicate balance. Public ownership of land is justified and should be exercised in the interest of the society and private land ownership should be regulated and made to conform with the economic and social development requirements of a country.

• 1976 Science: A Resource for Humankind ⁴⁹.

Effects of carbon dioxide in the atmosphere are stated as anything but certain, this time by the President of the ICSU, Gilbert White. Additionally details that Rockefeller fund research efforts on population control in less developed nations.

SCIENTIFIC CAPACITY AND GLOBAL ENVIRONMENTAL PROBLEMS

Gilbert F. White
President, ICSU Scientific Committee
on Problems of the Environment
Director, Institute of Behavioral Science
University of Colorado
Boulder, Colorado

The early 1970's saw the confluence of two streams of events affecting the capacity of the world scientific community to deal with global environmental problems. For the first time there was widespread recognition of the existence and probable expansion of perturbations in world environmental systems. Concurrently, scientists, with the support of the inter-governmental specialized agencies, developed a capacity to deal with such problems. They did this by establishing a conceptual framework for identifying problems to a balanced perspective, and for linking the contributions of a wide variety of scientific disciplines. They also fostered working groups of scientists who would collaborate across disciplinary and national boundaries in seeking problem definition and solution.

The 1930's had seen a wave of concern for environmental deterioration as it influenced the capacity of the human race to sustain itself. There was acute distress at the rapid degradation of soil profiles and plant cover under shifting cultivation, monoculture agriculture, and over-grazing. These concerns were noted during World War II. The post-war period saw renewed anxiety as to the capacity of the earth to support rapidly growing population and as to possible effects of radiation on human health and ecosystems. Radiation hazard commanded a wider degree of collaboration among scientists around the world in identifying problems and analyzing solutions than any previous environmental perturbation.

During the 1960's and early 1970's attention turned to other interventions in the global environmental systems which seemed to promise widespread consequences for human welfare. These included the possible effects of releases of fluorocarbons and nitrous oxide in the atmosphere, the diffusion of toxic pesticides, and petroleum spills in ocean waters.

The Global Atmospheric Research Program of the World Meteorological Organization (WMO) and ICSU combined as one of its two major aims the modeling of the global atmosphere.

One result of looking at the whole array of environmental perturbations in a more unified framework is to see how methodology may be improved to the benefit of numerous investigators. Another is to gain balance in estimating the significance of particular changes. In terms of the welfare of the human race over a time horizon of decades it is important to consider the deterioration of irrigated land along with such challenges as the discharge of fluorocarbons or the extinction of species. Relatively undramatic and inconspicuous shifts in the cycling of nitrogen on the land masses may hold as great a threat to survival as does the more widely debated change in carbon dioxide in the atmosphere. We are beginning to see a bit more clearly how the many alterations may be related to each other, and to recognize that the diversity of world landscapes imposes caution as to generalizations about world changes.

In appraising these complex perturbations it is instructive to ask the circumstances in which they were first identified. We may thus learn lessons which will make it easier to identify new threats before they reach severe magnitudes. Judging from the record, we may expect some surprises, and may find that some accustomed human activities as well as new technologies will turn out to carry grave implications for global systems. A perennial aim will be to minimize the degree of surprise and the disruption which they will generate. To do so will call for more effective modes of collaborative action. These can be expected to develop most rapidly through a combination of inter-governmental and ICSU ventures.

In 1969 ICSU created a special committee to deal with environmental problems. That group, as reported by Martin Holdgate, concentrated upon a few issues of clearly global significance. In trying to bring to bear the best available thinking, it drew upon each of the interested scientific unions in the ICSU family, and invited participation from those national academies of science that are members of ICSU. Similar efforts had been launched on questions of the oceans (the Scientific Committee on Ocean Research) and of Antarctica (the Scientific Committee on Antarctic Research). Instruments for fostering joint work thus far are in the formative stage, but they provide a machinery worthy of development, and demonstrate a capacity for cooperation with the major intergovernmental bodies in the field, principally FAO, UNEP, WHO, WMO, and UNESCO. In turn, UNEP, UNESCO, the Ford Foundation and the Rockefeller Foundation have been generous in support of the scientific unions and committees, and have helped make possible a number of ventures reported in Environmental Issues 1976.

THE BELLAGIO REPORT - A RESPONSE

John B. Rowles
President
The Rockefeller Foundation
New York, New York

I would make the rather obvious statement that we have enough knowledge and technology at the present time to improve markedly the quality of life by controlling the inordinate expansion of population, improving nutrition, decreasing fertility rates, and bringing equity to the 6 billion people of the world. If we only had more knowledge about human needs and human behavior from cultural anthropology, sociology, political science, government and economics. That is not to say that the acquisition of that knowledge will result in a sudden purification of human behavior. Let us remember that he who hates sin hates humanity. After all, bizarre and frequently irrational behavior is what makes life interesting.

Now, having opened up with that, there was something about the Branscomb presentation that disturbed me. We all say that we are basically optimistic, and that we are serious and not pessimistic. I agree, but I think that a sense of urgency was lacking in his paper. The time frame has constricted itself markedly in recent years. It is only in the last ten years, really, that the average person in the street, or indeed even the highly educated person here or abroad or any place in the world, has come to know the words "population," "Malthus," "geometric expansion versus arithmetic," the problems of food and nutrition, of health globally and nationally. We have found suddenly that there will be one future for the world. There will be no two futures. There will be one, or none at all. And the substance increases as we enter the last quarter of this century. We face the most complex global issues in the history of man - or woman. We face the problems of money, markets and inflation; defense, deterrence and detente; resources, raw materials and energy; pollution, ecology, weather modification; population and urban congestion - Mexico City, Ibadan, the great cities of the world are growing at 10, 15, 20 per cent a year! far outstripping any other growth of any part of the world; inequality, unemployment, and increasing disparities in the distribution of income and wealth; and behavioral sciences.

• 1977 Clean Air Act ⁵⁰.

Having completed work on the basic mechanism, and with a first report detailing the pricing of carbon emissions, the Clean Air Act Amendment of 1977 included the 'Prevention of Significant Deterioration', which involves phrasing related to offsetting, banking, and trading of emission.

1970 and 1977 amendments [\[edit \]](#)

In the [Clean Air Amendments of 1970](#) ([Pub. L. 91-604](#)), Congress greatly expanded the federal mandate by requiring comprehensive federal and state regulations for both industrial and mobile sources. The law established the National Ambient Air Quality Standards (NAAQS), New Source Performance Standards (NSPS); and National Emissions Standards for Hazardous Air Pollutants (NESHAPs), and significantly strengthened federal enforcement authority, all toward achieving aggressive air pollution reduction goals.

To implement the strict amendments, EPA Administrator William Ruckelshaus spent 60% of his time during his first term on the automobile industry, whose emissions were to be reduced 90% under the new law. Senators had been frustrated at the industry's failure to cut emissions under previous, weaker air laws.^[60]

Major amendments were added to the [Clean Air Act in 1977](#) (1977 CAAA) (91 Stat. 685, [Pub. L. 95-95](#)). The 1977 Amendments primarily concerned provisions for the Prevention of Significant Deterioration (PSD) of air quality in areas attaining the NAAQS. The 1977 CAAA also contained requirements pertaining to sources in non-attainment areas for NAAQS. A non-attainment area is a geographic area that does not meet one or more of the federal air quality standards. Both of these 1977 CAAA established major permit review requirements to ensure attainment and maintenance of the NAAQS.^[59] These amendments also included the adoption of an offset trading policy originally applied to Los Angeles in 1974 that enables new sources to offset their emissions by purchasing extra reductions from existing sources.^[35]

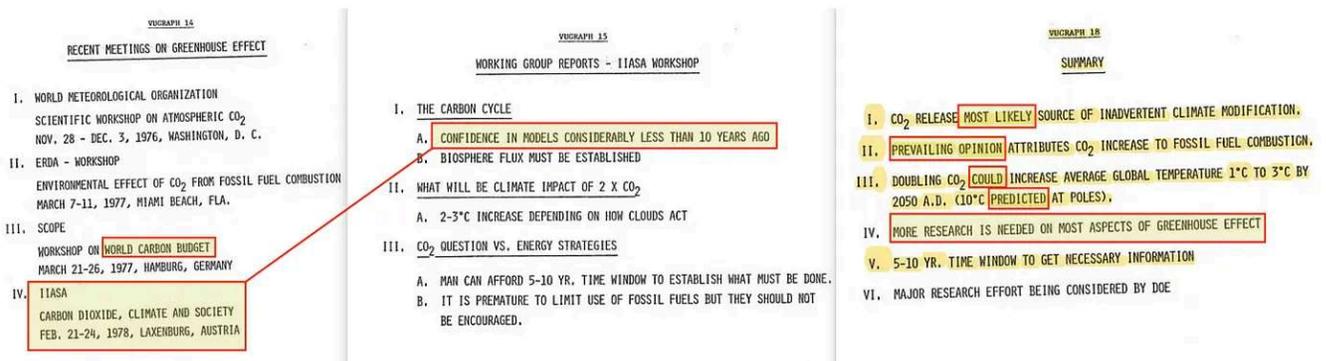
The Clean Air Act Amendments of 1977 required Prevention of Significant Deterioration (PSD) of air quality for areas attaining the NAAQS and added requirements for non-attainment areas.^[61]



- **1978 IIASA Working Group** [51](#).

A comprehensive lack of understanding was revealed at this IIASA event, at which was concluded that - *'scientific confidence in models of that cycle is considerably less than it was ten years ago.'*

In general, these reports constituted little more but outright guesswork, supported exclusively by the 'precautionary principle', only ever applied in one direction. And this followed on from a 1977 SCOPE workshop seeking to establish a 'World Carbon Budget' - at a time when virtually nothing was understood about the global carbon cycle.



IV. Research Needed to Establish the Validity and Significance of Projected Increases of CO₂ in the Atmosphere

The Greenhouse Effect has been attracting a large amount of scientific attention. Some of the more important recent meetings on this subject are presented in Vugraph 14. The World Meteorological Organization held a scientific workshop on atmospheric CO₂ in Washington, DC, in December 1976. ERDA held a workshop on the Environmental Effect of CO₂ from Fossil Fuel Combustion at Miami in March of 1977. This meeting was organized by their Advisory Committee for research on the Greenhouse Effect, the Chairman of which is Dr. Alvin Weinberg. DOE's present research effort on the Greenhouse Effect is a direct result of this workshop and I will be saying more about their program later. SCOPE (Standing Committee on the Planetary Environment), a West European organization, held a workshop on the world carbon budget in March of 1977 in Hamburg, Germany. The most recent major meeting was that organized in Luxemburg, Austria, this past February by IIASA (International Institute for Applied Systems Analysis) for the World Meteorological Organization, the U.N. Committee on the Environment and SCOPE.

The conclusions from this last meeting summarize the present world scientific opinion with respect to the Greenhouse Effect. The IIASA meeting was organized into three working groups. Some of the more

The conclusions from this last meeting summarize the present world scientific opinion with respect to the Greenhouse Effect. The IIASA meeting was organized into three working groups. Some of the more significant recommendations of these working groups are presented in Vugraph 15.

The working group on the carbon cycle concluded that scientific confidence in models of that cycle is considerably less than it was ten years ago. What is necessary to instill greater confidence is to provide a better understanding of the flux from the biosphere as reported by the biologists. The working group also recommended that more information be obtained on the interchange of CO₂ into the ocean and how it is transported to greater depths.

The second working group, on the climatic impact of a doubling of CO₂, reached conclusions close to those which have been summarized in the present talk. They felt that a doubling of atmospheric carbon dioxide would produce a 2-3 degree centigrade increase in temperature depending upon the influence of clouds.

- 1979 First World Climate Conference [52](#).

The first, implicit ‘*carbon consensus*’ was established at this invite-only event, organised by Foundation-funded ICSU. The contributors included absolutely no leading ‘*skeptics*’, and largely discussed policy - not science - with impeccable levels of relevance to future areas of policy decision.

And as soon as this ‘*consensus*’ was agreed upon, temperatures *allegedly* started to increase in an almost comedic, linear fashion - an absurdity in itself, as absolutely no pattern was indicated in temperature data until this point, a point repeatedly accepted in reports published through the early 80’s.

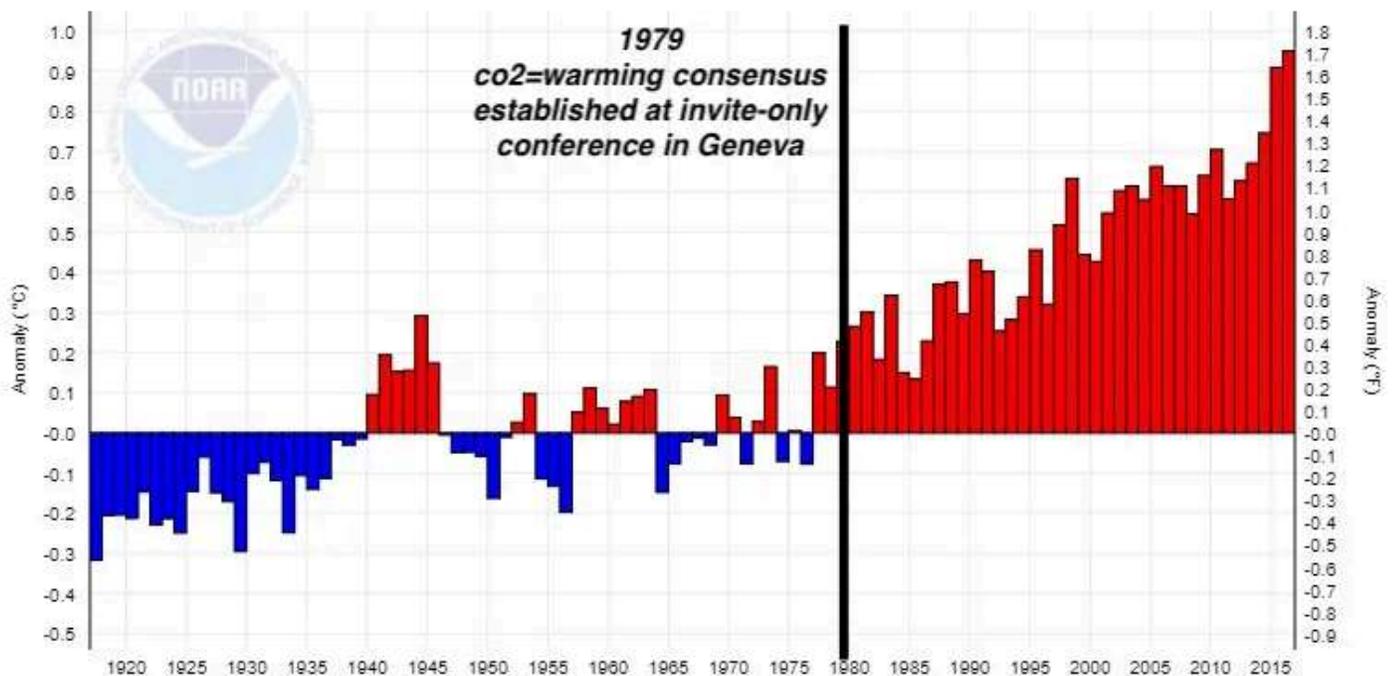


The International Council of Scientific Unions

ESC • JANUARY 11, 2024

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Global Land and Ocean Temperature Anomalies, January-December



- **1979 Three Mile Island** [53](#).

This vastly improbable, and highly exaggerated event incredibly took place, a mere months after the (*at the time*) highly anti-nuclear Union of Concerned Scientists released ‘*The Nugget File*’, a document containing a large amount of issues relating to safety, which ranged in scale from ‘*minor*’ to ‘*irrelevancies*’.

IN CONCLUSION

It is unfortunate that there was so much hysterical misinformation about Three Mile Island.

It is unfortunate that the government staff people mistakenly suggested that the hydrogen bubble inside the reactor vessel might explode.

It is unfortunate that the NRC’s admission of error on that score received so little attention and that Senator Glenn’s May 3 observations as to the small amount of radiation exposure was not widely reported.

It is particularly unfortunate that in this age of instant wisdom many of us feel obliged to draw hasty conclusions and then, like one recovering from an overnight drunk, are reluctant to admit our mistakes when morning comes – reluctant, for example, to assess what the Three Mile Island danger really was when viewed in the cold light of day.



The Total Human Ecosystem

JULY 29, 2024

[Read full story](#) →

- **1979 Convention on Long-Range Transboundary Air Pollution (CLRTAP)** [54](#).

Though frequently overlooked, this convention created the premise of trans-national air pollution, thus calling for international cooperation in the field of pollution of the global commons.

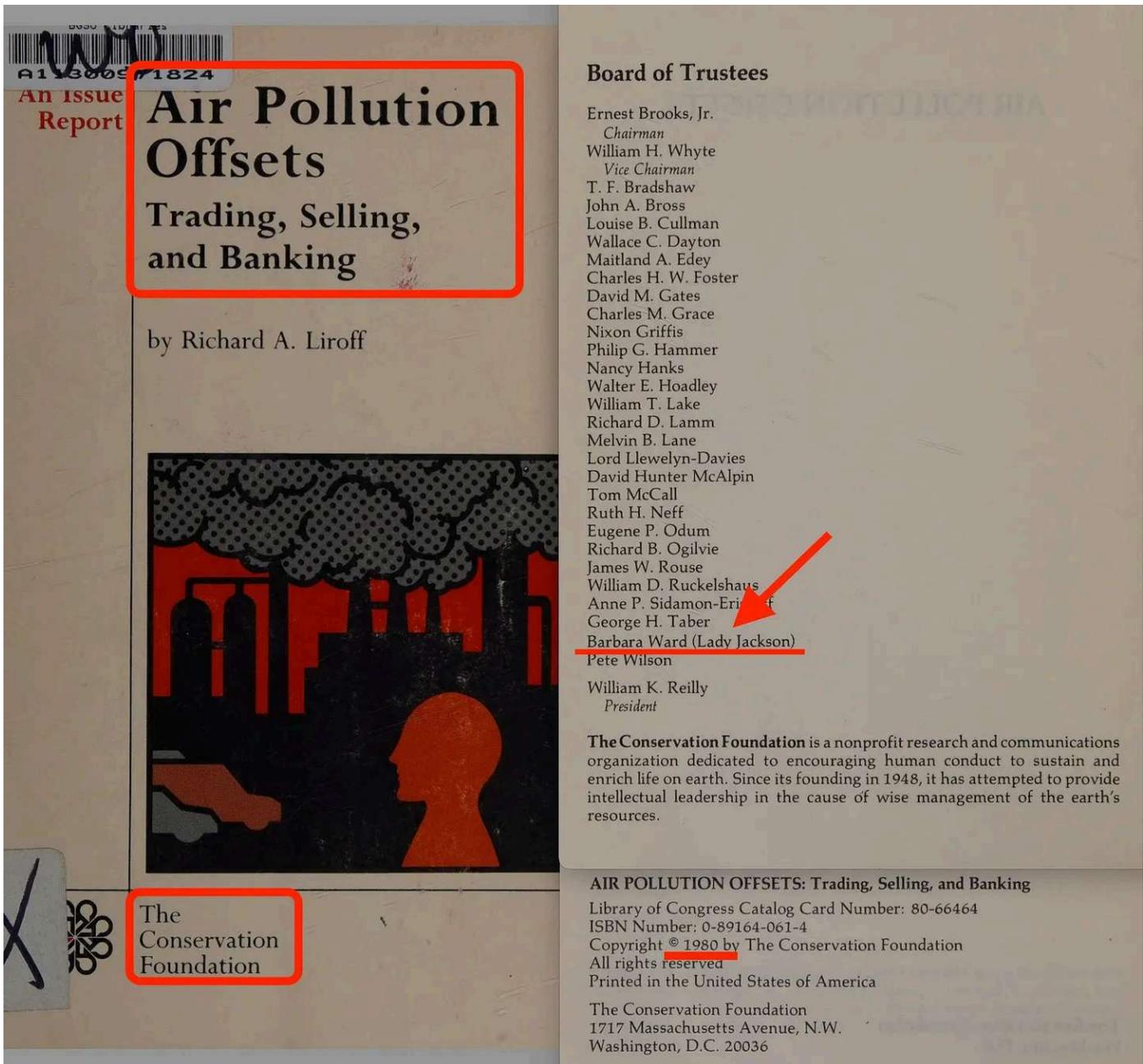
1979 CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

The Parties to the present Convention,

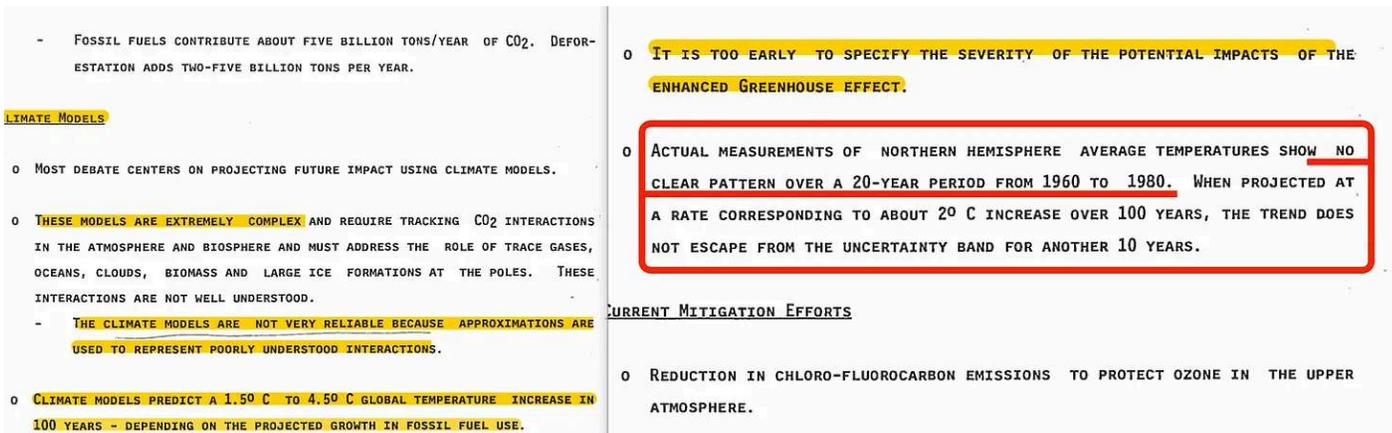
Determined to promote relations and cooperation in the field of environmental protection,

- **1980 Air Pollution Offsets** [55](#).

The Conservation Foundation published a reference book on pollution offsetting, trading, and banking, which - *interestingly* - saw Barbara ‘*Spaceship Earth*’ Ward included in its list of trustees.



- 1982 No temperature pattern established over 1960-1980 timeframe ⁵⁶.
Apocalypse is postponed by 90 years to 2090.



SUMMARY

Atmospheric monitoring programs show the level of carbon dioxide in the atmosphere has increased about 65 over the last twenty-five years and now stands at about 340 ppm. This observed increase is believed to be the continuation of a trend which began in the middle of the last century with the start of the Industrial Revolution. Fossil fuel combustion and the clearing of virgin forests (deforestation) are believed to be the primary anthropogenic contributors although the relative contribution of each is uncertain.

The carbon dioxide content of the atmosphere is of concern since it can affect global climate. Carbon dioxide and other trace gases contained in the atmosphere such as water vapor, ozone, methane, carbon monoxide, oxides of nitrogen, etc. absorb part of the infrared rays radiated by the earth. This increase in absorbed energy warms the atmosphere inducing warming at the earth's surface. This phenomenon is referred to as the "greenhouse effect".

Predictions of the climatological impact of a carbon dioxide induced "greenhouse effect" draw upon various mathematical models to gauge the temperature increase. The scientific community generally discusses the impact in terms of doubling of the current carbon dioxide content in order to get beyond the noise level of the data. We estimate doubling could occur around the year 2090 based upon fossil fuel requirements projected in Exxon's long range energy outlook. The question of which predictions and which models best simulate a carbon dioxide induced climate change is still being debated by the scientific community. Our best estimate is that doubling of the current concentration could increase average global temperature by about 1.3° to 3.1°C. The increase would not be uniform over the earth's surface with the polar caps likely to see temperature increases on the order of 10°C and the equator little, if any, increase.

Considerable uncertainty also surrounds the possible impact on society of such a warming trend, should it occur. At the low end of the predicted temperature range there could be some impact on agricultural growth and rainfall patterns which could be beneficial in some regions and detrimental in others. At the high end, some scientists suggest there could be considerable adverse impact including the flooding of some coastal land masses as a result of a rise in sea level due to melting of the Antarctic ice sheet. Such an effect would not take place until centuries after a 3°C global average temperature increase actually occurred.

CO₂ GREENHOUSE EFFECT

Background

The buildup of CO₂ in the atmosphere has been monitored continuously at the National Oceanic and Atmospheric Administration's (NOAA) Observatory at Mauna Loa, Hawaii, and periodically in other places since 1957. In addition to observing a trend between 1957-1979 that showed atmospheric CO₂ increasing from 315 to 337 ppm, Keeling and others also observed a seasonal variability ranging from 6 to 10 ppm between a low at the end of the summer growing season (due to photosynthesis) and a high at the end of winter (due to fossil fuel burning for heat, and biomass decay). There is little doubt that these observations indicate a growth of atmospheric CO₂ (see Figure 1). It is also believed that the growth of atmospheric CO₂ has been occurring since the middle of the past century, i.e., coincident with the start of the Industrial Revolution. There is, however, great uncertainty as to whether the atmospheric CO₂ concentration prior to the Industrial Revolution (ca., 1850) was 290-300 ppm which one would arrive at by assuming atmospheric CO₂ growth is due to fossil fuel burning and cement manufacturing, or 260-270 ppm based on carbon isotope measurements in tree rings. The information on CO₂ concentration prior to 1850 is important because it would help establish the validity of climatic predictions with respect to the inception of a CO₂ induced "greenhouse effect".

- 1982 EPA - Offsetting ⁵⁷.

The EPA chief administrator at the time... 'Between 1981 and 1983, while known as Anne M. Gorsuch, she served under President Ronald Reagan ... Her son is sitting Associate Justice of the Supreme Court of the United States Neil Gorsuch'

4-7-82
Vol. 47 No. 67
Pages 14895-15090

**Wednesday
April 7, 1982**

15076 Federal Register / Vol. 47, No. 67 / Wednesday, April 7, 1982 / Notices

ENVIRONMENTAL PROTECTION AGENCY

[PRM-FRL-1994-5]

Emissions Trading Policy Statement; General Principles for Creation, Banking, and Use of Emission Reduction Credits

May 12, 1982.
AGENCY: Environmental Protection Agency.
ACTION: Proposed policy statement and accompanying technical issues document.

SUMMARY: It is the policy of EPA to encourage use of emissions trades to achieve more flexible, rapid and efficient attainment of national ambient air quality standards. This Policy Statement describes emissions trading, sets out general principles EPA will use to evaluate emissions trades under the Clean Air Act, and expands opportunities for states and industry to use these less-costly control approaches. Emissions trading includes several alternatives to traditional regulation: bubbles, netting, and offsets, as well as banking (storage) of emission reduction credits (ERCs) for future use. These alternatives do not alter existing air quality requirements; they simply give states and industry more flexibility to meet these requirements. EPA endorses emissions trading and supports its accelerated use by states and industry to meet the goals of the Clean Air Act more quickly and inexpensively. This Policy Statement replaces the original bubble policy (44 FR 71779, Dec. 11, 1979) and sets forth minimum legal requirements for creation, storage or use of emission reduction credits in any emissions trade. It also provides criteria for "generic" SIP rules under which states can approve bubble or other trades without case-by-case federal SIP review. EPA encourages states to continue adopting generic trading rules and approving individual trades. Until EPA takes final action on this proposal, it will evaluate state actions under the principles set forth here and illustrated in the accompanying Technical Issues Document.

EFFECTIVE DATE: This Policy Statement is effective as interim guidance upon publication. The deadline for submitting comments is July 6, 1982.

ADDRESSES: Comments should be sent in triplicate if possible to: Central Docket Section (A-130), U.S. Environmental Protection Agency,

Washington, D.C. 20460, Attn: Doc. No. G-81-2.

DOCKET: EPA has established docket number G-81-2 for this action. This docket is an organized and complete file of all significant information submitted to or otherwise considered by EPA. The docket is available for public inspection and copying between 8:00 a.m. and 4:00 p.m., Monday through Friday, at EPA's Central Docket Section. A reasonable fee may be charged for copying.

FURTHER INQUIRIES: Ivan Tether, Regulatory Reform Staff (PM-223), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, (202) 382-2765, or Leo Stander, Office of Air Quality Planning and Standards (MD-15), Research Triangle Park, North Carolina 27711, (919) 541-5518.

SUPPLEMENTARY INFORMATION: Under Executive Order 12291, EPA must judge whether this action is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This action is not major because it establishes policies that are voluntary and can substantially reduce costs of complying with the Clean Air Act. Furthermore, it can reduce administrative complexity by reducing the number of trades which must be approved by EPA, can stimulate innovation in pollution control, and can allow state and local pollution control agencies to conserve scarce resources. This Policy Statement was submitted to the Office of Management and Budget for review. Any comments from OMB to EPA are available for public inspection in Docket G-81-2. Pursuant to 5 U.S.C. 605(b), I hereby certify that this action will not have a significant economic impact on a substantial number of small entities. As a policy designed to allow firms flexibility and to reduce administrative complexity, it will impose no burdens on either small or large entities.

I. Introduction: Components of Emissions Trading

This statement details EPA policy on emissions trading. It presents the minimum conditions EPA considers necessary for emissions trades to satisfy the Clean Air Act. It simplifies past requirements and expands opportunities to use these more efficient alternatives.

A. What Is Emissions Trading?

Emissions trading consists of bubbles, netting, emission offsets, and emission reduction banking. These alternatives involve the creation of surplus reductions at certain emission sources

and use of these reductions to meet requirements applicable to other emission sources. Emission trades can provide more flexibility, and may therefore be used to reduce control costs, encourage faster compliance, and free scarce capital for industrial revitalization. Moreover, by developing "generic" trading rules (see section III below) states¹ and industry can be excused from SIP reviews, and attendant delay and uncertainty, for many individual bubbles or other trades.

B. The Bubble Policy and Today's Improvements

EPA's bubble policy lets existing plants (or groups of plants) decrease or be excused from pollution controls at one or more emissions sources in exchange for compensating increases in control at other emission sources. Bubbles give plant managers flexibility to develop less costly ways of meeting air quality requirements. Each bubble must be equivalent to the original emission limits in terms of ambient impact and enforceability. Bubbles cannot be used to meet technology-based requirements applicable to new sources.

This Policy Statement replaces the original bubble policy (Dec. 11, 1979; 44 FR 71779) and broadens opportunities for the bubble's use. Major changes include:

- Authorizing generic trading rules for all criteria pollutants;
- Extending use of the bubble to areas which lack approved demonstrations of attainment of the national ambient air quality standards;
- Expanding opportunities for use of bubbles as an alternative means of meeting reasonably available control technology (RACT) requirements;
- Reducing unnecessary requirements for detailed air quality modeling of the ambient impact of each trade;
- Reducing unnecessary constraints on trades involving open dust sources of particulate emissions;
- Allowing VOC and CO sources more time to implement bubbles under administrative compliance schedules, consistent with reasonable further progress and statutory deadlines for attaining ambient standards;
- Allowing sources to use the bubble to come into compliance, instead of having to be on a compliance schedule with original SIP limits to be eligible to bubble; and

¹States includes any entity properly delegated authority to administer relevant parts of a State Implementation Plan (SIP) under the Clean Air Act.

Federal Register

- **1982 World Charter for Nature** [58](#).

The 1979 CLRTAP led to the World Charter for Nature, which built upon the concept of transboundary air pollution in item 21d, but further including curious phrasing in item 9; ‘*The allocation of areas of the Earth to various uses shall be planned...*’.



The World Charter for Nature

ESC • DECEMBER 3, 2023

[Read full story](#) →

18

General Assembly—Thirty-seventh Session

7. In the planning and implementation of social and economic development activities, due account shall be taken of the fact that the conservation of nature is an integral part of those activities.

8. In formulating long-term plans for economic development, population growth and the improvement of standards of living, due account shall be taken of the long-term capacity of natural systems to ensure the subsistence and settlement of the populations concerned, recognizing that this capacity may be enhanced through science and technology.

9. The allocation of areas of the earth to various uses shall be planned and due account shall be taken of the physical constraints, the biological productivity and diversity and the natural beauty of the areas concerned.

10. Natural resources shall not be wasted, but used with a restraint appropriate to the principles set forth in the present Charter, in accordance with the following rules:

(a) Living resources shall not be utilized in excess of their natural capacity for regeneration;

(b) The productivity of soils shall be maintained or enhanced through measures which safeguard their long-term fertility and the process of organic decomposition, and prevent erosion and all other forms of degradation;

(c) Resources, including water, which are not consumed as they are used shall be reused or recycled;

(d) Non-renewable resources which are consumed as they are used shall be exploited with restraint, taking into account their abundance, the rational possibilities of converting them for consumption, and the compatibility of their exploitation with the functioning of natural systems.

11. Activities which might have an impact on nature shall be controlled, and the best available technologies that minimize significant risks to nature or other adverse effects shall be used; in particular:

(a) Activities which are likely to cause irreversible damage to nature shall be avoided;

(b) Activities which are likely to pose a significant risk to nature shall be preceded by an exhaustive examination; their proponents shall demonstrate that expected benefits outweigh potential damage to nature, and where potential adverse effects are not fully understood, the activities should not proceed;

(c) Activities which may disturb nature shall be preceded by assessment

19. The status of natural processes, ecosystems and species shall be closely monitored to enable early detection of degradation or threat, ensure timely intervention and facilitate the evaluation of conservation policies and methods.

20. Military activities damaging to nature shall be avoided.

21. States and, to the extent they are able, other public authorities, international organizations, individuals, groups and corporations shall:

(a) Co-operate in the task of conserving nature through common activities and other relevant actions, including information exchange and consultations;

(b) Establish standards for products and manufacturing processes that may have adverse effects on nature, as well as agreed methodologies for assessing these effects;

(c) Implement the applicable international legal provisions for the conservation of nature and the protection of the environment;

(d) Ensure that activities within their jurisdictions or control do not cause damage to the natural systems located within other States or in the areas beyond the limits of national jurisdiction;

(e) Safeguard and conserve nature in areas beyond national jurisdiction.

22. Taking fully into account the sovereignty of States over their natural resources, each State shall give effect to the provisions of the present Charter through its competent organs and in co-operation with other States.

23. All persons, in accordance with their national legislation, shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation.

24. Each person has a duty to act in accordance with the provisions of the present Charter; acting individually, in association with others or through participation in the political process, each person shall strive to ensure that the objectives and requirements of the present Charter are met.

37/8. Co-operation between the United Nations and the Asian-African Legal Consultative Committee

- **1984 Debt-for-Nature Swaps.**

The LatAm debt crisis began in Mexico in 1982. Lovejoy’s solution was simple - pledge your prime lands as collateral in return for more debt - thus solving the problem forever.



Debt-for-Nature Swaps

ESC • MARCH 1, 2024

[Read full story](#) →



Thomas Lovejoy

ESC • MARCH 2, 2024

[Read full story](#) →

- 1985 Tietenberg - Emissions Trading [59](#).

A significant though evolutionary step towards the full definition of the future carbon dioxide emission trading system.

Emissions Trading

an exercise in reforming pollution policy

T. H. Tietenberg

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TRENT UNIVERSITY
PETERBOROUGH, ONTARIO

RESOURCES FOR THE FUTURE, INC. / WASHINGTON, D

INTRODUCTION 7

amount of required emission control from new sources in order to prevent states from caving in under industry pressure. Neither LAER nor BACT can be lower than the new source performance standards.

THE EMISSIONS TRADING PROGRAM

Stripped to its bare essentials, the Clean Air Act's approach toward stationary sources involves the specification of emission standards (legal ceilings) on all major emission sources. These standards are imposed on a large number of specific emission points such as stacks, vents, or storage tanks.

The emissions trading program attempts to inject more flexibility into the manner in which the objectives of the Clean Air Act are met. Sources are encouraged to change the mix of control technologies envisioned in the standards as long as air quality is improved or at least not adversely affected by the change. The program is implemented by means of four separate policies, linked by a common element known as the emission reduction credit. The emission reduction credit is the currency used in trading among emission points, while the offset, bubble, emissions banking, and netting policies govern how the currency can be spent.

The Components of the Program

THE EMISSION REDUCTION CREDIT. Should any source decide to control any emission point to a higher degree than necessary to fulfill its legal obligations, it can apply to the control authority for certification of the excess control as an emission reduction credit. Certified credits can be banked or used in the bubble, offset, or netting programs. To receive certification, the emission reduction must be: (1) surplus, (2) enforceable, (3) permanent, and (4) quantifiable.

THE OFFSET POLICY. The offset policy was established to resolve a conflict between economic growth and progress toward meeting the ambient standards in nonattainment areas. The dilemma posed by the conflict involved how new or expanded sources could be accommodated while meeting the statutory requirement that the ambient standards be met as expeditiously as possible. Since these sources would add emissions to the region, some means of offsetting them had to be found. The offset policy allows qualified new or expanding sources to commence operations in a nonattainment area provided they acquire sufficient emission reduction credits from existing sources. By buying the credits, new sources, in effect, finance emission controls undertaken by existing sources. This approach was designed to ensure that regional

Table 2. The Evolution of the Emissions Trading Program: Major Milestones, 1975-84

Date and citation	Title	Significance
December 16, 1975 40 FR 58416	Standards of performance for new stationary sources	First use of bubble concept. Would excuse modified plants from NSPS so long as total emissions do not increase.
December 21, 1976 41 FR 55254	Emissions offset interpretive ruling	<u>Initiated offset policy.</u>
August 7, 1977 91 Stat. 712	<u>Amendments to Clean Air Act</u>	Statutory recognition of <u>offset policy.</u>
January 27, 1978 578 F.2d 319	ASARCO Inc. v. EPA	Struck down 1975 NSPS bubble.
January 16, 1979 44 FR 3274	<u>Emission offset interpretive ruling (revised)</u>	Revised offset policy to conform with 1977 Amendments. <u>Allowed banking.</u>
January 18, 1979 44 FR 3740	Recommendation for alternative emission reduction options within state implementation plans	Proposed rules establishing bubble policy.
December 11, 1979 44 FR 71780	Recommendations for alternative emission reduction options within state implementation plans	Final bubble rules.
August 7, 1980 45 FR 52676	Requirements for preparation, adoption, and submittal of implementation plans and approval and promulgation of implementation plans	Separate netting rules established for PSD and nonattainment areas.
April 6, 1981 46 FR 20551	Approval and promulgation of state implementation plans: New Jersey	Approved New Jersey's generic VOC bubble; encouraged other states to develop generic rules.
October 14, 1981 46 FR 50766	Requirements for preparation, adoption, and submittal of implementation plans and approval and promulgation of implementation plans	Netting rules changed to provide for uniform treatment of sources in attainment and nonattainment areas.
April 7, 1982 47 FR 15076	Emissions trading policy statement: general principle for creation, banking, and use of emission reduction credits	<u>Integrated bubble, offset, banking, and netting into a single emission trading program.</u>
June 25, 1984 52 LW 4845	Chevron U.S.A. v. Natural Resources Defense Council, Inc.	Upheld use of netting rules for nonattainment as well as PSD regions.

- 1985 GEMS GRID [60](#).

While the Global Environment Monitoring System progressively took shape during the 1970s, the Global Resource Information Database (GRID) first launched in the mid-1980s.



Michael Gwynne, 1932-2012

ESC • DECEMBER 7, 2023

[Read full story →](#)

GRID-Arendal

- Norwegian foundations
 - Created 1989 by Norwegian Ministry of Environment
 - Supports UNEP
- 1985 The Villach Conference [61](#) [62](#).
The models predicted disaster, and the models are never wrong. This led to the establishment of the AGGG (*below*).



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Villach 1985: A call to policy-makers

That analysis was initiated by UNEP shortly after the conference. It became the report "The assessment of the role of carbon dioxide and of other greenhouse gases in climate variations and associated impacts". In 1985, a second Villach conference, again organized by ICSU, UNEP and WMO, met to discuss the results of the study. It became clear that the combined effect of all greenhouse gases could mean the equivalent of a doubling of atmospheric CO₂ concentrations might be on the horizon before the middle of the 21st century. Climate change was becoming a much more urgent issue than previously thought.

- 1985 Advisory Group on Greenhouse Gases [63](#).
The precursor to the IPCC, led by Bert Bolin.

History: ICSU and climate change

Since the 1950s, the International Council for Science (ICSU) has played a pioneering role in the development of climate science at the international level, principally by generating mechanisms to orient and complement research undertaken at the national level.



In recent decades, climate science has required international collaboration among researchers on an unprecedented scale, coupled with collaboration at the intergovernmental level. ICSU's contribution has been crucial to defining the scientific issues, facilitating consensus on research priorities and convening collaborations which have underpinned the research. In parallel, ICSU has also worked tirelessly to initiate and support mechanisms for ground-breaking climate research to reach policy-makers in some cases resulting in important shifts in policy development.

Until the mid-1950s, international cooperation among scientists in diverse fields with an interest in climate was quite limited. An opportunity to scale up this cooperation emerged with the ICSU-initiated International Geophysical Year (IGY) in 1957-58, which brought together scientists from more than 60 countries to take part in a series of coordinated observations of geophysical phenomena. While greenhouse gases were not its key priority, the IGY provided funding to initiate the systematic measurements of atmospheric carbon dioxide (CO₂). This work was carried out by Charles David Keeling at a base on Mauna Loa in Hawaii. In 1981, Keeling produced data showing that carbon dioxide levels were rising steadily on what became known as the "Keeling Curve".

Following the success of IGY, the United Nations General Assembly formally invited ICSU to work alongside the World Meteorological Organization (WMO) in developing a programme of research on atmospheric science. ICSU and WMO appointed a committee to plan a new research programme which became the Global Atmospheric Research Programme (GARP) in 1987. The goal was to understand the predictability of the atmosphere and extend the time range of daily weather forecasts to more than two weeks.

Over the decades, WCRP established a ground-breaking programme of international and interdisciplinary research that has produced some major advances in climate science. Notable achievements include establishing the physical basis for understanding and predicting El Niño events, improved climate models as the basis for research and international assessments, and comprehensive field measurements and the development of regional and global observational climatic data sets leading to improved understanding of key climate processes.

In 1985, ICSU, together with WMO and UNEP, organized a major conference on the "Assessment of the Role of Carbon Dioxide and of Other Greenhouse Gases in Climate Variations and Associated Impacts" in Villach (Austria). Scientists at this conference agreed that greenhouse gases could warm the earth by several degrees, with serious consequences. The group's scientific findings were summarized by the ICSU-initiated Scientific Committee on Problems of the Environment (SCOPE) in a seminal report "The greenhouse effect, climatic change and ecosystems". This was the first comprehensive international assessment of the environmental impact of atmospheric greenhouse gases. The SCOPE report, together with the Villach conference, was the first to state that "substantial warming" would occur as a result of a doubling of CO₂, to note that increases in CO₂ "were attributable to human activities", to recommend a variety of specific policy actions, and to urge more significant steps toward international cooperation on issues of climate change, calling for governments to recognize that future climate change could be stemmed by attention to policies concerning fossil fuel use, energy conservation and greenhouse gas emissions. The report called on governments to consider positive actions, even a "global convention" to prevent too much global warming. Climate science, in short, was no longer just a matter for scientists. The SCOPE report also shaped the recommendations of the 1987 Brundtland Report "Our Common Future" on action to protect the earth's climate.

The Villach conference called for ICSU, WMO, and UNEP to establish a task force on greenhouse gases and to ensure that periodic scientific assessment was undertaken. This led to creation of an Advisory Group on Greenhouse Gases (AGGG), appointed by ICSU/WMO/UNEP. This group organized international workshops and produced several reports on the policy implications of the emerging climate science.

AGGG can be viewed as an antecedent of the Intergovernmental Panel on Climate Change. Policy-makers were starting to understand the serious long-term implications of the scientific findings, and concluded that AGGG needed to be superseded by a new, independent official group under the direct control of representatives appointed by each nation. Responding to this request, WMO and UNEP jointly created the Intergovernmental Panel on Climate Change (IPCC) in 1988, tasked to equitably take stock of the science for government purposes and examine options for responding to human-induced climate change. Creation of the IPCC provided the institutional base for more focused, better-coordinated examination of needed science-policy interactions at the international level. Bert Bolin, who was a member of AGGG and an author of the SCOPE report, was appointed the first IPCC chairman.

Throughout the 1980s, evidence mounted that climate change was one part of a larger phenomenon - global change - requiring an even wider scientific view and building connections among geophysics, chemistry and biology. This awareness eventually led to the launch of the ICSU-sponsored International Geosphere-Biosphere Programme (IGBP) at the ICSU General Assembly in 1986. IGBP was created to address the Earth as a system of globally interacting phenomena, and to understand the physical, chemical and biological processes that regulate this system, changes occurring to these processes and the role of human activities in these changes.

- 1985 Discovery of the Ozone Hole [64](#).

changing where solar energy is absorbed in the atmosphere. Another link is that the ozone-depleting chemicals are greenhouse gases, so reducing their amount has significantly helped in combating climate change.

What can we learn from the Ozone Hole discovery?

The Antarctic ozone hole formed in less than a decade and shows us just how sensitive our planet is to human activities. Other signals of the planet's health, which today are just beginning to be detected, may develop equally rapidly. The long series of careful measurements obtained by the British Antarctic Survey show how important it is to have a good baseline from which to measure changes.

Fact file

- The discovery of the Antarctic ozone hole was first announced in a paper by British Antarctic Survey's Joe Farman, Brian Gardiner and Jonathan Shanklin, which appeared in the journal *Nature* in May 1985.
- Ozone in the atmosphere is measured using the Dobson Spectrophotometer – equipment designed in the 1920s, but still the world standard. Ozone is measured in Dobson Units, DU and a typical measurement is about 300 DU.
- An ozone hole is defined as an area of the atmosphere having ozone values less than 220 DU.
- If you took all the ozone in a vertical column above the instrument and brought it down to sea level it would form a layer just three millimetres thick.
- Major volcanic eruptions, such as the 1991 eruption of Mount Pinatubo in the Philippines may put material which enhances ozone depletion into the stratosphere.
- Scientists working in Antarctica wear high-factor sunscreen to avoid sunburn when working outside, especially as sunlight is also reflected from the snow surface. You can get burnt in as little as five minutes without it!

- 1986 EPA - Offsetting.

Another progressive legislative update under Reagan.

**ENVIRONMENTAL PROTECTION
AGENCY**

[FRL-3085-8]

**Emissions Trading Policy Statement;
General Principles for Creation,
Banking and Use of Emission
Reduction Credits****AGENCY:** Environmental Protection
Agency.**ACTION:** Final policy statement and
accompanying technical issues
document.**SUMMARY:** This Policy Statement
replaces the original bubble policy (44
FR 71779, December 11, 1979) and makes
final revisions in an Interim Emissions
Trading Policy which was published
April 7, 1982 (47 FR 15076) and on which
further comments were requested
August 31, 1983 (48 FR 39580).

The policy describes emissions trading and sets out general principles EPA will use to evaluate emissions trades under the Clean Air Act and applicable federal regulations. Emissions trading includes bubbles, netting, and offsets, as well as banking (storage) of emission reduction credits (ERCs) for future use. These alternatives do not alter overall air quality requirements; they give states and industry more flexibility to meet those requirements. EPA endorses emissions trading and encourages its sound use by states and industry to help meet the goals of the Clean Air Act more quickly and inexpensively.

However, EPA also recognizes that without strict accounting practices and other safeguards, emissions trades may cause potential environmental harm. Accordingly, this policy provides more

explicit guidance on baselines and related tests for environmental equivalence and environmental progress. It includes numerous tightenings and clarifications meant to assure the future environmental integrity of bubbles and other trading transactions.

Among other general steps, the policy states that the lower of actual or allowable emissions must usually be used as the baseline for emissions trades. Divergences from this baseline will be allowed only where the state or applicant shows that any potential increase in actual emissions will not jeopardize National Ambient Air Quality Standards (NAAQS), PSD increments or visibility protection.

General showings to this effect may be made only by establishing that allowable values were clearly incorporated in or assumed by an approved demonstration of attainment or maintenance. Specific showings to this effect may be made only in narrow circumstances described in the accompanying Technical Issues Document.

Other general matters addressed and significantly clarified by this policy include requirements for air quality modeling and approvable state generic bubble rules, additional enforcement safeguards, and additional safeguards related to bubbles involving pollutants listed, regulated or proposed to be regulated under Section 112 of the Act.

This policy also sets forth new, tighter requirements for bubbles in primary nonattainment areas which require but lack approved demonstrations that national ambient standards for healthy air will be attained. In addition to requiring lowest-of-actual-SIP

allowable-or-RACT-allowable emissions baselines in these areas, use of past shutdowns, curtailments or other reductions which occurred before application for credit is essentially eliminated, and a further reduction of at least 20 percent beyond the baseline is required. Broadly speaking, sources may secure bubble credit in these areas only if claimed reductions meet these baseline and further reduction requirements; were reasonably, objectively elicited by the opportunity to trade; and are accompanied by state assurances that the trade is consistent with the state's efforts to attain the ambient air quality standard. EPA will approve bubbles which meet these requirements because they are consistent with the attainment needs of these areas and will yield a net air quality benefit. Such bubbles can produce economic savings and environmental improvement at the same time.

The policy announced today does not constitute final action of the Agency within the meaning of section 307(b) of the Clean Air Act, and therefore is not judicially reviewable. Rather, it establishes general guidance on approvable voluntary trades. EPA will implement this guidance in later rulemaking actions that will be judicially reviewable. Applicants for emissions trades remain free, following publication of today's notice, to advance the appropriateness of different trading requirements in the context of rulemaking actions on their individual trades.

EFFECTIVE DATE: This Policy Statement
is effective December 4, 1986.

- 1987 Montreal Protocol - Emission Transfers [65](#).

The discovery of the ozone hole led to this protocol, inclusive of language related to the transferring of emission permits between parties.

No. 26369

MULTILATERAL

Montreal Protocol on Substances that Deplete the Ozone Layer (with annex). Concluded at Montreal on 16 September 1987

Authentic texts: Arabic, Chinese, English, French, Russian and Spanish.
Registered ex officio on 1 January 1989.

MULTILATÉRAL

Protocole de Montréal relatif à des substances qui appauvrissent la couche d'ozone (avec annexe). Conclu à Montréal le 16 septembre 1987

Textes authentiques : arabe, chinois, anglais, français, russe et espagnol.
Enregistré d'office le 1^{er} janvier 1989.

Vol. 1522, I-26369

level of production of the substances does not exceed, annually, fifty per cent of its calculated level of production in 1986. However, in order to satisfy the basic domestic needs of the Parties operating under Article 5 and for the purposes of industrial rationalization between Parties, its calculated level of production may exceed that limit by up to fifteen per cent of its calculated level of production in 1986. This paragraph will apply unless the Parties decide otherwise at a meeting by a two-thirds majority of Parties present and voting, representing at least two thirds of the total calculated level of consumption of these substances of the Parties. This decision shall be considered and made in the light of the assessments referred to in Article 6.

5. Any Party whose calculated level of production in 1986 of the controlled substances in Group I of Annex A was less than twenty-five kilotonnes may, for the purposes of industrial rationalization, transfer to or receive from any other Party, production in excess of the limits set out in paragraphs 1, 3 and 4 provided that the total combined calculated levels of production of the Parties concerned does not exceed the production limits set out in this Article. Any transfer of such production shall be notified to the secretariat, no later than the time of the transfer.

6. Any Party not operating under Article 5, that has facilities for the production of controlled substances under construction, or contracted for, prior to 16 September 1987, and provided for in national legislation prior to 1 January 1987, may add the production from such facilities to its 1986 production of such substances for the purposes of determining its calculated level of production for 1986, provided that such facilities are completed by 31 December 1990 and that such production does not raise that Party's annual calculated level of consumption of the controlled substances above 0.5 kilograms per capita.

7. Any transfer of production pursuant to paragraph 5 or any addition of production pursuant to paragraph 6 shall be notified to the secretariat, no later than the time of the transfer or addition.

8. (a) Any Parties which are Member States of a regional economic integration organization as defined in Article 1(6) of the Convention may agree that they shall jointly fulfil their obligations respecting consumption under this Article provided that their total combined calculated level of consumption does not exceed the levels required by this Article.

(b) The Parties to any such agreement shall inform the secretariat of the terms of the agreement before the date of the reduction in consumption with which the agreement is concerned.

(c) Such agreement will become operative only if all Member States of the regional economic integration organization and the organization concerned are Parties to the Protocol and have notified the secretariat of their manner of implementation.

9. (a) Based on the assessments made pursuant to Article 6, the Parties may decide whether:

- (i) Adjustments to the ozone depleting potentials specified in Annex A should be made and, if so, what the adjustments should be; and
- (ii) Further adjustments and reductions of production or consumption of the controlled substances from 1986 levels should be undertaken and, if so, what

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- 1987 The World Conservation Bank.

Launched in 1989 as the Global Environment Facility, this is a financial mechanism serving the UNFCCC and CBD.



The World Conservation Bank

ESC • MARCH 5, 2024

[Read full story](#) →

- 1987 Our Common Future (*The Brundtland Report*) [66](#).

Launch of the 'Sustainable Development' agenda in official capacity.

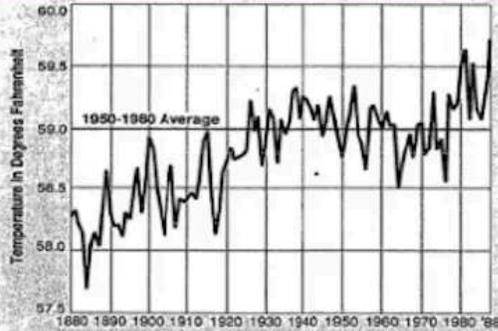
- 1988 The Intergovernmental Panel on Climate Change [67](#).

Cooperating with the IIASA, the IPCC fabricates the quack environmental 'science' which goes unchallenged, yet is used as the basis for legislation.

- 1988 Global Warming 'officially begins', per the New York Times.

Fortunately, the IPCC was setup just in time.

Global Warming Has Begun, Expert Tells Senate



Global Warming: Greenhouse Effect?

Average global temperatures through the first five months of 1988. As a baseline, scientists use the global average from 1950 to 1980.

Source: James E. Hansen and Sergey Lebedev

The New York Times/June 24, 1988

Sharp Cut in Burning of Fossil Fuels Is Urged to Battle Shift in Climate

By PHILIP SHABECOFF

Special to The New York Times

WASHINGTON, June 23 — The earth has been warmer in the first five months of this year than in any comparable period since measurements began 130 years ago, and the higher temperatures can now be attributed to a long-expected global warming trend linked to pollution, a space agency scientist reported today.

Until now, scientists have been cautious about attributing rising global temperatures of recent years to the predicted global warming caused by pollutants in the atmosphere, known as the "greenhouse effect." But today Dr. James E. Hansen of the National Aeronautics and Space Administration told a Congressional committee that it was 99 percent certain that the warming trend was not a natural variation but was caused by a buildup of carbon dioxide and other artificial gases in the atmosphere.

An Impact Lasting Centuries

Dr. Hansen, a leading expert on climate change, said in an interview that there was no "magic number" that showed when the greenhouse effect was actually starting to cause changes in climate and weather. But he added, "It is time to stop waffling so much and say that the evidence is pretty strong



Cañon Zapata in Tijuana, Mexico, the busiest illegal crossing point.

Drought Raising Food Prices; Inflation Effect Seems Minor

By ROBERT D. HERSEY JR.

Special to The New York Times

- 1989 Al Gore's 'The Global Environment: A National Security Issue' ⁶⁸.

In the run-up to the Earth Summit, Al Gore posted this absurd, fear-mongering prediction - 'Scientists now predict our current course may raise world temperatures almost 5°C in the lifetime of our children'. And there's a hint of agenda through the inclusion of 'My own religious faith teaches me that we are given dominion over the earth but that we also are required to be good stewards of the earth.'

It's a bad, bad call, but it's particularly egregious, not only due to Gore's engagement with GLOBE Legislators ^{69 70}, but also as a pivotal figure in the development of the Convention on Biological Diversity ⁷¹.

Secretariat of the Convention on Biological Diversity

COMMUNIQUÉ

EXECUTIVE SECRETARY WELCOMES THE ANNOUNCEMENT OF THE NOBEL PEACE PRIZE TO THE IPCC AND AL GORE

The Executive Secretary, Mr. Ahmed Djoghliaf, today welcomed the announcement of the Nobel Peace Prize being awarded jointly to the Intergovernmental Panel on Climate Change (IPCC) and Mr. Al Gore.

In welcoming the announcement Mr. Djoghliaf praised the Nobel Committee for highlighting the increased danger of violent conflicts and wars, within and between States, posed by climate change and its consequences on the loss of biodiversity.

He further congratulated the IPCC and its over 2,000 scientists world wide who contributed to the reports for creating an ever-broader informed consensus about the connection between human activities and global warming and the loss of biodiversity. He also congratulated Mr. Al Gore for his work in creating greater public awareness throughout the world as well as for his personal contribution as a United States Senator to the Convention on Biological Diversity during the 1992 Rio Summit.

Mr. Djoghliaf also congratulated the Nobel Prize Committee for having chosen the prize winners for the second time in its history for their environmental contribution to international peace and security. He said that: "Climate change has become one of the greatest drivers of biodiversity loss, which in turn will compound the climate crisis and undermine the efforts of the international community to achieve the Millennium Development Goals, including poverty alleviation and ensuring environmental sustainability."

Mr. Djoghliaf noted the appeal of Secretary-General Ban Ki-moon for a long-term global response to deal with climate change with the unified efforts of all Member States and that of other international bodies, including the Convention on Biological Diversity.

"We must be guided by the reality that inaction now will prove the costliest action of all in the long term." — UN Secretary-General Ban Ki-moon

GLOBE The Global Legislators Organisation

Keynote Address

AL GORE
Former Vice President, USA
Co-Founder, GLOBE International

About GLOBE

GLOBE International is a cross-party network of parliamentarians dedicated to improving governance for sustainable development.

Founded in 1989 by members of the US, UK, Japan and other countries in the European Parliament, Russian Duma and Japanese Diet, GLOBE International has grown to include legislators from every global region. GLOBE members have been instrumental in the development of legislation on climate change, biodiversity and natural resource protection in parliaments across the world. GLOBE International's current work includes supporting implementation of the Convention on Biological Diversity, the Sustainable Development Goals, the Sendai Framework on Disaster Risk Reduction and the UN Sustainable Development Goals.

reshaping international politics on sustainable development.

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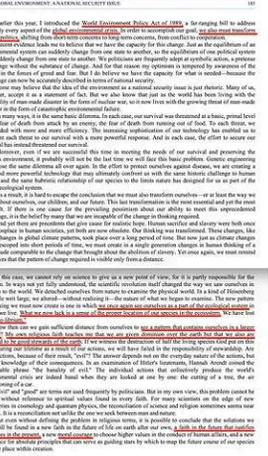
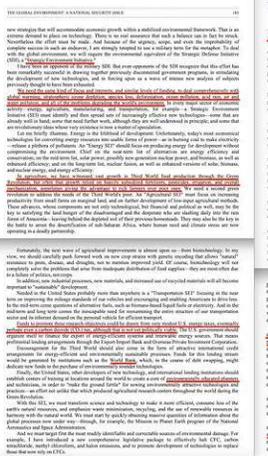
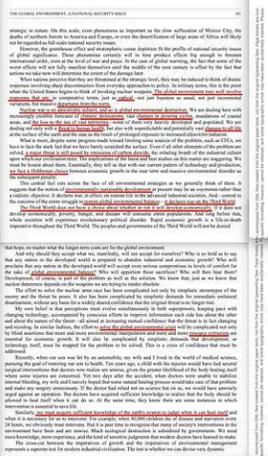
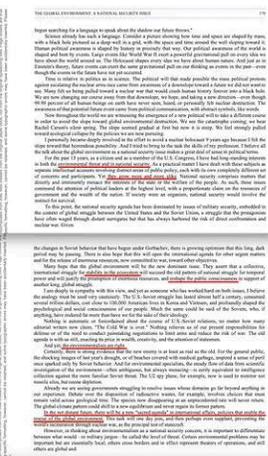
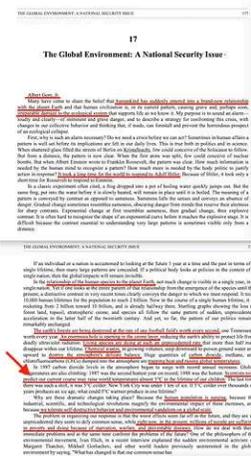
HISTORY

GLOBE International was originally founded in 1989 by legislators from the US Congress, European Parliament, Japanese Diet and the Russian State Duma with the mission to respond to urgent environmental challenges through the development and advancement of legislation.

Today GLOBE chapters have been established in the parliaments of most G20 countries and EU Member States.

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PRESIDENCY OF GLOBE



• 1989 Iwokrama ⁷².

A GEF pilot project meant to showcase the merits of biodiversity conservation, restoration and sustainable use, but it predictably became a complete, financial disaster, with all 'solutions' only making things worse.



Iwokrama
ESC • MARCH 6, 2024
Read full story →

• 1990 Contingency Valuation Model ⁷³.

The absurdity of this valuation model - used to value the use of natural resources in various capacities, including recreational use - is called out behind the scenes.

In other words, when they initially considered one species they were imagining a context that assumed all other species would be protected for free. My conclusion is that CVM could only be valid if it utilized a "full market" context in which all ecosystem services are marketed. This full market context in turn requires the respondent to know an incredibly large set of information. This information is not available to either the expert scientific world or to the general public. Hence, the responses to CVM questions on ecosystem valuation are meaningless.

5. Consumer Sovereignty - Does Motivation Matter?

Many of the issues I have raised in this note have been discussed before, yet the CVM continues to be applied to the valuation of ecosystem resources. Proponents of CVM argue that it is appropriate to follow the wishes of consumers regardless of their reasons for bidding. Much of the debate has centered on the question of whether the reasons for respondents' bids matters in determining the credibility and usefulness of the bids. Whether respondents are motivated by use value, option value, bequest value, religious motives, altruistic motives or other reasons, the proponents argue that consumer sovereignty should prevail. The argument I have constructed in this note does not suggest that consumers are not sovereign, nor that motivations matter in judging the usefulness of CVM results for policymakers. But lack of information does matter.

• 1990 IPCC Assessment - Trade Permits ⁷⁴.

The very first IPCC assessment included superficial language related to the trading of emission permits.

POLICYMAKERS SUMMARY OF THE RESPONSE STRATEGIES WORKING GROUP OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (WORKING GROUP III)

The first Primary meeting of Working Group III of the IPCC, the Response Strategies Working Group (RSWG), was held in Washington, January 20-21, 1989. This meeting was largely organizational, and it was soon after that a subsequent RSWG Officers Meeting in Geneva, May 8-12, 1989, did the real work by the four RSWG subgroups, the Emission Scenario Task Force (Task A) and the Implementation Measures Task Force (Task B) began.

The primary task of the RSWG was, in the broad sense, technical, not political. The charge of IPCC to RSWG was to use as fully and fairly as possible a set of response policy options and the factual basis for those options. Consistent with that charge, it was the purpose of the RSWG to select or recommend political actions, much less to carry out a negotiation on the many difficult policy questions that attach to the climate change issue, although clearly the information might need to engage one or another option. Selection of options for implementation is appropriately left to the policymakers of governments and/or negotiation of a convention.

The work of RSWG continues. The Energy and Industry Subgroup has, since the last RSWG Primary Meeting, held additional meetings in London (June 1990) and Paris (September 1990), the results of which are not reflected in this report. It should be noted that quantitative estimates provided in the report regarding CO₂, including those in Scenario A ("Business as Usual"), generally do not reflect decisions made in June 1989 by the Parties to the Montreal Protocol. Those decisions accelerate the timetable to phase out production and consumption of CFCs, halons, carbon tetrachloride, and methyl chloroform.

It should further be noted that quantitative estimates of forestry activities (e.g., deforestation, biomass burning, including fuel wood, and other changes in land use practices), as well as agricultural and other activities provided in the Report continue to be reviewed by experts. Two specific items of unfinished business submitted to RSWG by the Ministers at the November 1988 meeting in Nairobi are the consideration of the feasibility of achieving: (1) targets to limit or reduce CO₂ emissions, including, e.g., a 22 percent reduction of CO₂ emission levels by the year 2025; (2) a world net forest growth of 12 million hectares a year in the beginning of the next century.

The subgroup chairs and topic coordinators took the responsibility for completing their individual reports and, along with their respective governments, contributed generously of their time and resources to that end. The RSWG Policymakers Summary is the culmination of the first year of effort by this body. The RSWG has gone to considerable lengths to ensure that the summary accurately reflects the work of the various subgroups and tasks. Given the very tight schedule under which the RSWG was asked to work, this first report can be only a beginning.

FREDERICK M. BRANTHAL, Chairman, Response Strategies Working Group, Intergovernmental Panel on Climate Change

starting with implementing strategies that have multiple social, economic, and environmental benefits, are cost effective, are compatible with sustainable development, and make use of market forces in the best way possible; intensifying international, multilateral, and bilateral cooperation in developing new energy strategies to cope with climate change. In this context, industrialized countries are encouraged to promote the development and transfer of energy efficient and clean technologies to other countries; encourage the use of energy efficient technologies and policy decisions to the extent that they can be determined; increase public awareness of energy-efficient technologies and products and alternatives, through public education and information (e.g., labeling); strengthening research and development and international collaboration in energy technologies, and economic and energy policy analysis, which are relevant for climate change; encouraging the participation of industry, the general public, and NGOs in the development and implementation of strategies to limit greenhouse gas emissions.

4.2 LIMITATION OF NET EMISSIONS FROM THE INDUSTRY SECTOR

The most significant source of greenhouse gases associated with industrial activity not related to energy use is the production and use of CFCs and other halocarbons. CFCs represent a very important source of greenhouse gas emissions and account for about 24 percent of the total contributions to the enhanced radiative forcing for the period of the 1990s. While the RSWG did not consider control strategies for these gases, since the issue is already addressed under the Montreal Protocol on Substances that Deplete the Ozone Layer, it noted that the review of the Montreal Protocol now under way should take into account the global warming potential of potential CFC substitutes.

The RSWG did develop future emission scenarios

7.2 TECHNOLOGY DEVELOPMENT AND TRANSFER

The development and transfer of technologies are vital to any effort to address global climate change. The development of new technologies may provide the means by which societies can meet their energy, food, and other needs in the face of changes in global climate, while at the same time minimizing emissions of greenhouse gases. Prompt transfer of technologies, especially to developing countries, is likewise an important aspect of any effort to limit or adapt to climate change.

Technology Research and Development

Technological development, including improvement and reassessment of existing technologies, is needed to limit or reduce anthropogenic greenhouse gas emissions; absorb such gases by protecting and increasing sinks; adapt human activities and resource use and management to the impacts of climate change; and detect, monitor, and predict climate change and its impacts. Technological development could be pursued in a wide range of activities such as energy, industry, agriculture, transport, water supply, coastal protection, management of natural resources, and housing and building construction.

Adequate and trained human resources are a prerequisite for development and transfer of technologies, and technological actions, founded on a sound scientific basis, must be consistent with the concept of sustainable development.

Criteria for selecting technologies include such factors as the existence of economic and social benefits in addition to environmental benefits, economic efficiency taking into account all the external costs, suitability to local needs, ease of administration, information needs, and acceptability to the public.

Appropriate pricing policies where applicable, information exchange on the state of development of technologies, and the support of governments are important measures that can promote technology development. Also of importance are international collaborative efforts, especially between the industrial and the developing countries in the bilateral and multilateral context.

Technology Transfer

There is a need for the rapid transfer to the developing countries, on a preferential basis, of technologies for addressing climate change. Developing countries are of the view that transfer of technologies on a noncommercial basis is necessary and that specific bilateral and multilateral arrangements should be established to promote this. Some other countries where technologies are not owned by the government believe that transfer of technologies would be a function of bilateral commercial negotiations. The issue of intellectual property rights also presents a case where international opinion is mixed.

A number of impediments also exist that hinder the effective transfer of technologies to developing countries. These include lack of financial resources, necessary institutions, and trained human resources. Existing institutions could be strengthened, or new mechanisms established, where appropriate, to finance technology transfers, train human resources, and evaluate, introduce, and operate existing or new technologies. Legal barriers and restrictive trade practices are also impeding factors.

It has not been possible to bridge the difference in views on some of the questions mentioned above. It is extremely important to reach early international agreement on these issues in order to promote effective flow of technologies to monitor, limit, or adapt to climate change. One area where international agreement may be possible is the promotion of CFC substitutes and provision of assistance and cooperation to the developing countries in the acquisition and manufacture of such substitutes.

Several countries have suggested that the issue of technology transfer to Eastern European countries be addressed.

7.3 ECONOMIC MECHANISMS

It is important that any potential measures to limit or adapt to global climate change be as economically efficient and cost-effective as possible, while taking into account important social implications. In general, environmental objectives can be achieved either through regulations requiring the use of a

technology or attainment of specific goals, or economic instruments such as emissions fees, subsidies, tradable permits, or sanctions.

Economic instruments, through their encouragement of flexible selection of abatement measures, frequently offer the possibility of achieving environmental improvements at lower cost than regulatory mechanisms. Unlike many regulations, they tend to encourage innovation and the development of improved technologies and practices for reducing emissions. Economic mechanisms also have the potential to provide the signals necessary for more environmentally sensitive operation of markets. It is unlikely, however, that economic instruments will be applicable to all circumstances.

Three factors are considered as potential barriers to the operation of markets and/or the achievement of environmental objectives through market mechanisms. These are: information problems, which can often cause markets to produce less effective or unfavorable environmental outcomes; existing markets and institutions, which can encourage individuals to behave in environmentally damaging ways; and balancing competing objectives (social, environmental, and economic). An initial response strategy may therefore be to address information problems directly and to review existing measures that may be barriers. For example, prior to possible adoption of a system of emission charges, countries should examine existing subsidies and tax incentives on energy and other relevant greenhouse gas producing sectors.

A general advantage of market based economic instruments is that they encourage limitations or reductions in emissions by those who can achieve them at least cost. They also provide an ongoing incentive for industry and individual consumers to apply the most efficient limitation/reduction measures through, for example, more efficient and cleaner technologies. Such incentives may be lacking in the case of regulations.

Regulations are the customary means of controlling pollution in both market and centrally planned economies. An advantage of regulations is that, in certain circumstances, they create more certainty as to desired outcomes, whereas major disadvantages are that they may discourage innovation, introduce inflexibilities in meeting objectives, can discourage resource use efficiency, and offer few or no incentives to reduce emissions beyond specified levels.

It is evident that the question of adoption of any form of economic instrument, whether domestically or internationally, raises many complex and difficult issues. Careful and substantive analysis of all implications of such instruments that have been identified for consideration include:

- A system of tradable emissions permits: An emission permit system is based on the concept that the economic costs of attaining a given environmental goal can be minimized by allowing for the trading of emissions rights. Once an overall limit on emissions has been set, emissions entitlements amounting to that limit could be provided to emitting sources and free trading of such entitlements allowed. This would reduce the costs of meeting a given emission target because: (a) in trade, comparative advantages between trading entities would be maximized; and (b) economic incentives would be created for the development of improved greenhouse gas limitation technologies, sink enhancement, and resource use efficiency (energy conservation). Concerns with this approach include the limited experience with this instrument, the potential scope and size of trading markets, and the need for the development of an administrative structure not currently in place.

- A system of emission charges: Emission charges are levied on specified emissions depending on their level of contribution to climate change. Such charges may provide a means of encouraging emitters to limit or reduce emissions and provide an incentive for diverse parties to implement efficient means of limiting or reducing emissions. Another advantage of charges is that they generate revenue that could provide a funding base for further pollution abatement, research, and administration, or allow other taxes to be lowered. Concerns with this approach include the difficulty of deciding on the basis and size of the tax, and the lack of certainty that the tax will achieve the agreed emission reduction target.
- Subsidies: Subsidies are aimed at encouraging environmentally sound actions by lowering their costs. Subsidies could be used, inter alia, to encourage the use of energy-efficient equipment and non-fossil energy sources, and the

development and greater use of environmentally sound technologies. Concerns with subsidies include the possible size of the required financial commitment of governments, the need for careful design, the need for review, and the international trade aspects of such measures.

Sanctions. A final type of economic instrument is the use of economic sanctions for the enforcement of international agreements. This would require an international convention to establish a system of agreed trade or financial sanctions to be imposed on countries not adhering to agreed regimes. Many contributors expressed considerable reservations about applying this approach to greenhouse gas emissions because of the complexity of the situation. The concerns include a belief that sanctions could appear to be arbitrary, could create confusion and resentment, and could be used as a pretext to impose new non-tariff trade barriers.

It has also been suggested that environmental protection could be advanced and the economic costs of meeting greenhouse gas limitation targets, if any, minimized by addressing, to the extent feasible, all greenhouse gas sources and sinks comprehensively. This approach could employ an "index" relating net emissions of various greenhouse gases by further development of the index formulated by Working Group I.

Each of the approaches outlined above, however, poses potentially significant challenges in terms of implementation and acceptability. There is an incomplete understanding of the economic and social consequences of these various approaches. It is evident that further work is required in all countries, and in ongoing IPCC work, to fully evaluate the equality of such measures and costs and benefits associated with different mechanisms, especially with those used internationally. It has, however, been pointed out that an international system of tradable permits, or, alternatively, an international system of emissions charges, could offer the potential of serving as a cost-efficient main instrument for achieving a defined target for the reduction of greenhouse gas emissions.

Finally, it was stressed that in order to share equitably the economic burdens, implementation of any of the international economic instruments discussed above should take into account the circum-

stances that most emissions affecting the atmosphere at present originate in the industrialized countries where the scope for change is the greatest, and that, under present conditions, emissions from developing countries are growing and may need to grow in order to meet their development requirements and thus, over time, are likely to represent an increasingly significant percentage of global emissions. It is appreciated that each instrument assessed has a role in meeting greenhouse gas emission objectives, but the suitability of particular instruments is dependent on the particular circumstances and at this stage no measure can be considered universally superior to any other available mechanisms.

7.4 FINANCIAL MECHANISMS

Industrialized and developing countries consider it important that assurances of financial mechanisms are needed for undertaking adequate measures to limit and/or adapt to climate change.

Guiding Principles

The following principles should guide the financial approach:

- Industrialized countries and developing countries have a common responsibility in dealing with problems arising from climate change, and effective responses require a global effort.
- Industrialized countries should take the lead and have specific responsibilities on two levels:
 - major part of emissions affecting the atmosphere at present originates in industrialized countries where the scope for change is greatest. Industrialized countries should adopt domestic measures to limit climate change by adapting their own economies in line with future agreements to limit emissions;
 - to cooperate with developing countries in international action, without standing in the way of the latter's development, by contributing additional financial resources, by appropriate transfer of technology, by engaging in close cooperation

• 1990 IPCC WG3 - Emission Trading 75.

The output report of working group 3 in remarkable detail spells out the future emission trading system.

COORDINATORS
J. Tilley (Australia)
J. Gilbert (New Zealand)

9.5 INSTRUMENTS EXAMINED

9.5.1 PRINCIPLES

Economic instruments offer the possibility of minimizing the total social costs of achieving national goals and international commitments relating to climate change. They seek to meet limitations/reductions or adaptation objectives by adjusting or harnessing market forces so that they take account of environmental costs.

However, the use of economic instruments raises moral concerns in the minds of some contributors relating to the fact that some of the economic instruments imply "paying for the right to pollute" and that economic instruments introduce a profit motive element into the achievement of public goals of environmental protection. Others have responded that regulations allow for the same right to pollute, the only difference being in the transferability of the right, and that regulation does not banish the profit motive, since profit opportunities in regulatory systems are often directly dependent on securing favorable regulatory treatment. Indeed, the misuse of resources in lobbying for favorable regulatory treatment represents a considerable drawback of the regulatory approach.

Section 9.5.2, below, looks at measures that might be used in centrally planned economies to reduce emissions and then examines the role of regulations in market economies.

Section 9.5.3-9.5.6 examine the following economic instruments that might be considered as alternatives or supplements to the regulations. The instruments examined are:

9.5.3 Tradable emission permits
9.5.4 Emissions charges
9.5.5 Subsidies
9.5.6 Sanctions

It will be up to each country to select the mix of measures most appropriate to their particular circumstances in light of the suggested criteria for evaluating measures outlined in Section 9.4 and any steps (such as international consultation) necessary to avoid negative impacts on world trade. More

work is required to identify the circumstances under which each measure is most appropriate.

9.5.2 REGULATIONS

9.5.2.1 Regulation in Centrally Planned Economies

Because of the difference between the social and economic structures in different countries, different combinations of instruments or at least different emphases in their use will be required. In the particular case of centrally planned economies, the central plan encompasses a comprehensive set of regulations and is the major instrument for achieving sustainable limitations or reductions in emissions.

Central planning provides possibilities for the government to coordinate and direct all efforts to limit or reduce emissions. Possibilities include: phasing emissions reductions/limitations by those enterprises that can achieve them best at least cost so as to minimize the financial burden to society as a whole; provision of loans on favorable terms for environmentally sound investments and investment in price regulations to enhance the introduction of new environmentally acceptable technologies and activities.

9.5.2.2 Regulation in Market Economies

Governments in market economies also have the option to impose direct controls to limit or reduce greenhouse gas emissions. Regulatory controls typically seek to prescribe acceptable standards as to restrict or limit certain activities. They normally do not seek to influence market behavior through price signals. Such controls have been the customary means of controlling pollution. Examples include emission controls for motor vehicles or the installation of scrubbers on power plants.

Direct controls have the advantage of creating certainty as to the desired actions and outcomes. They may also be useful when it may not be possible to frame appropriate market measures. Their implementation, however, may:

- fail to encourage innovation, as there may be no incentive to further limit or reduce emissions;
- introduce inflexibilities in meeting emission objectives, thereby imposing unnecessary economic costs; and
- require significant monitoring and/or administration to ensure that the desired outcomes are achieved (although the same may be true for market measures).

Some contributors thought that regulations were not an area where there is extensive experience in controlling pollution. Further work on determining the potential for increased use of environmental regulations and analysis of their advantages and disadvantages, including areas where regulations might be more effective than economic measures, could be of use.

9.5.3 A SYSTEM OF TRADEABLE EMISSION PERMITS

9.5.3.1 Method of Operation

An emission permit system is based on the concept that emissions entitlements (like coupons or rights to pollute) are awarded to certain sources (which can be in large numbers), subject to an overall limit on overall emissions. The sum of entitlements is equal to an emissions budget set at the national level through regulation or at the international level through international agreements. A "tradable" emission permit system extends the emission permit system by allowing the permit holders to trade or sell their entitlements to another party on the open market. It is supplementary to a regulatory programme in that it operates within overall limits on emissions of the greenhouse gases.

There has been to date only limited experience with tradable emission permits at the national level, and no experience at the international level. One example that has been implemented in the United States is its programme to phase down the use of lead in gasoline. Under this programme, the United States government set a target for the usage of lead in gasoline through regulatory means and used a trading system that allowed gasoline refiners to allocate their lead budget in an economically efficient manner. Although this can be viewed as recognizing a "right to pollute," it is only a right to pollute up to a level determined to be environmentally acceptable by the U.S. government.

Many options exist for determining the initial allocation of entitlements under a tradable emission permit system. For example, at the national level, entitlements could be allocated to existing producers in proportion to their existing emissions level or they could be auctioned to the highest bidder, or sold to tender.

At the international level, a tradable emission permit system would need to cover the same countries as those described above. As a first step, an overall emissions budget could be set. Global emission budgets for initial emissions entitlements for each country could be determined in a number of possible ways: the entitlements could be allocated by the level of emissions in a base year, by population size of countries, by a target unit of emissions per unit of GNP, by a target unit of fossil fuel use per unit of population or GNP, etc.

Once the initial entitlements to each country have been determined, countries would of course have to allocate their overall budget to the sources in their country. This allocation procedure could follow their social and economic needs. However, at the international level, a tradable permit system needs to specify how the entitlements shall be distributed or allocated. Governments or individual entitlement holders could be free to buy or sell, brokers could operate, and the spot price of an entitlement would float to a current market valuation of a marginal unit of emissions. Making the market freely accessible and issuing entitlements in small divisible units should go a considerable distance in preventing any nation or firm from cornering the market.

At either the national or international level, a further variation of this system is to allow entitlements to be granted for the creation of sinks. An international policy regime that focuses on global climate objectives, rather than the means by which they are achieved, would treat sink creation and emissions reduction as one-for-one substitutes.

9.5.3.2 Benefits and Difficulties of a National Tradable-Permit Programme

The following potential benefits have been suggested:

- it reduces the cost of meeting a total emission target set by regulation;

It provides economic incentives to develop and use cost-effective, energy-efficient industrial processes, consumer products, and emission control technologies;

- it works within a system of agreed emission budgets;
- it provides an efficient mechanism for addressing the trade-offs between sources and sinks for the specified emissions; and
- it provides the opportunity for low-income rights holders to sell rights to others in exchange for compensation of greater value.

The following potential difficulties have been suggested:

- it creates a "right to pollute" that can be purchased by those with the highest level of income;
- it may not be politically acceptable in many countries;
- it requires administrative structures that generally do not exist today; and
- it requires extensive monitoring and record-keeping to track the movement of entitlements and overall compliance with the total emissions budget.

9.5.3.3 Benefits and Difficulties of an International Tradable Permit Programme

Generally an international programme will carry with it the same benefits and difficulties as a national programme. The potential cost savings may be higher but the level of the administrative and enforcement complexity could be even more severe. An international body of some kind would be required to allocate, whether the allowable limit of pollution was being exceeded, the additional potential concerns about the "right to pollute" and the ability of wealthy nations to procure their rights would be greater. Also, there is a lack of experience of these programmes at the international level.

Issues Needing Further Examination

Major concerns were expressed by contributors over the use of tradable emission permits, some thinking that an international system of tradable permits was not advisable. While it was agreed that

studies of tradable permits should continue, these countries asked that their major mitigating should be taken into consideration.

There are a number of other issues associated with a tradable emission permit programme that need further exploration, including the political problem created by a "right to pollute"; the criteria used to determine the initial allocation of entitlements; the special situation of developing countries; the potential scope and size of a trading market; and the feasibility of the administrative structure that would be required to implement such a programme, including the conditions necessary for them to be feasible, such as identifiable emission point sources, available income elasticity, availability of comprehensive and up-to-date information on options, and a market in which to trade permits.

The contribution from the Environmental Defense Fund discussed in some detail the practical arrangements that might be adopted in the implementation of a system of tradable emission rights, both at a national level and internationally. This and other work should be consulted in the further development of proposals that might utilize this instrument.

Some contributors thought that an alternative approach to a system of emission charges would be to have the polluter pay by conducting research designed to reduce emissions—e.g., through an appropriate tax credit system.

9.5.4 A SYSTEM OF EMISSION CHARGES

Emission charges are levied imposed in relation to the level of emissions. They provide a means of encouraging the limitation or reduction of emissions to a level that is socially desirable. They also provide an ongoing incentive for the parties concerned to implement efficient means of limiting or reducing emissions by, for example, implementing energy efficiency measures. For governments, major attractions of taxes may be the revenue they generate. This revenue could provide a funding base for further pollution abatement, research, and administration. It could also enable other taxes to be lowered, budget deficits to be reduced or government expenditures to be increased in other fields. A carbon tax on burning fossil fuels is one example

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- 1990 The Second World Climate Conference [76](#). Calls for a Global Climate Observing System, i.e., satellite surveillance.
- 1991 The Global Environment Facility [77](#). Supposedly intended as a facility to provide financing mechanism to support the restoration of biodiversity and other global goals, what it actually is, is a facilitator of blended finance, routing taxpayer largesse into private foundation coffers, all whilst monetising nature. It further serves as a financial mechanism of the UNFCCC and CBD.



A UNFCCC/CBD synthesis.

OCTOBER 9, 2024

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The Global Environment Facility

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- 1991 Caring for the Earth [78](#). The IUCN publication launched the ethical imperative of living sustainably for sakes of alleged planetary stewardship.

Chapter 2. Respecting and caring for the community of life

Action 2.1. Develop the world ethic for living sustainably.

- 1992 1,700 Concerned Scientists ⁷⁹.

Having lied about nuclear in the 70's, leave it to the Union of Concerned Scientists to drum up the fear post-Earth Summit in Rio. And though I've heard repeated claims that this is 'no biggie', the simple fact - and I quote - '*Some 1,700 of the world's leading scientists, including the majority of Nobel laureates in the sciences, issued this appeal in November 1992*' plus having personally lived through the event, that is patently an absolute absurdity. The document further goes to unequivocally state - '*No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished*'. We're now more than 3 decades on, meaning that either the prediction was spectacularly wrong, or you're the sort who will insist on watering down the message to a such extent that your opinion frankly becomes worthless, as you will no doubt either do or excuse the exact same 32 years from now on, thus rendering you completely untrustworthy.

Union of Concerned Scientists | Climate | Energy | Transportation | Food | Nuclear Weap

REPORTS & MULTIMEDIA / ACTIVIST RESOURCE

1992 World Scientists' Warning to Humanity

Published Jul 16, 1992 | Updated Feb 4, 2022

DOWNLOADS ↓

UCS is maintaining this page as part of our history. However, we understand that elements of this letter are deeply problematic. Specifically, centering population—with only a cursory nod to the consumption of wealthy nations and the wealthiest people—is a narrative rooted in colonialism and racism, and current-day unjust and inequitable socioeconomic systems.

For a more in-depth discussion, please read our explainers on [climate change and population](#), and [food security and population](#).

Some 1,700 of the world's leading scientists, including the majority of Nobel laureates in the sciences, issued this appeal in November 1992. The World Scientists' Warning to Humanity was written and spearheaded by the late Henry Kendall, former chair of UCS's board of directors.

Population

The earth is finite. Its ability to absorb wastes and destructive effluent is finite. Its ability to provide food and energy is finite. Its ability to provide for growing numbers of people is finite. And we are fast approaching many of the earth's limits. Current economic practices which damage the environment, in both developed and underdeveloped nations, cannot be continued without the risk that vital global systems will be damaged beyond repair.

Pressures resulting from unrestrained population growth put demands on the natural world that can overwhelm any efforts to achieve a sustainable future. If we are to halt the destruction of our environment, we must accept limits to that growth. A World Bank estimate indicates that world population will not stabilize at less than 12.4 billion, while the United Nations concludes that the eventual total could reach 14 billion, a near tripling of today's 5.4 billion. But, even at this moment, one person in five lives in absolute poverty without enough to eat, and one in ten suffers serious malnutrition.

No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished.

Warning

We the undersigned, senior members of the world's scientific community, hereby warn all humanity of what lies ahead. A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.

What we must do

Five inextricably linked areas must be addressed simultaneously:

- 1 We must bring environmentally damaging activities under control to restore and protect the integrity of the earth's systems we depend on.**
We must, for example, move away from fossil fuels to more benign, inexhaustible energy sources to cut greenhouse gas emissions and the pollution of our air and water. Priority must be given to the development of energy sources matched to Third World needs—small-scale and relatively easy to implement.
- 2 We must manage resources crucial to human welfare more effectively.**
We must halt deforestation, injury to and loss of agricultural land, and the loss of terrestrial and marine plant and animal species.
- 3 We must stabilize population.**
This will be possible only if all nations recognize that it requires improved social and economic conditions, and the adoption of effective, voluntary family planning.
- 4 We must reduce and eventually eliminate poverty.**
- 5 We must ensure sexual equality, and guarantee women control over their own reproductive decisions.**

- 1992 Globe Legislator focus on Forests ⁸⁰.

The first 'ecosystem service' to be monetised, of course, is carbon emissions from forests. And, predictably, that was exactly what GLOBE focused on during their early years.



Valuing the Environment

ESC • APRIL 11, 2024

[Read full story →](#)

GLOBE moves forward

1992

1992 was a particularly fruitful year in GLOBE's history. In Europe, GLOBE EU hosted a General Assembly in Lisbon (November) where a number of resolutions were adopted on issues such as climate change, biodiversity, forest policy and the follow up of the UNCED Summit.

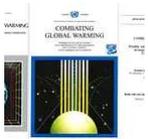
At the General Assembly in Washington D.C. in the same year, participants approved the text of a Global Convention for the Conservation and Wise Use of Forests, proposed by GLOBE EC. Aiming to promote worldwide conservation of forests through a legally binding agreement, this project, which began in April 1991 and was completed in early 1992, brought together a large network of institutions and NGOs under GLOBE EC's auspices.

In Lisbon, parliamentarians, severely critical of the European Commission's decision not to introduce European taxation on CO₂ and energy, urged industrialised countries to take the lead in reducing CO₂ emissions through the introduction of fiscal instruments for the encouragement of energy efficiency.

- **1992 Combating Global Warming (UNCTAD/RDP/DFP/1).**

Pivotal document(s), which with impeccable levels of precision outlined the future... monetisation of nature.

Air and water are simply no longer the "free goods" that economists once assumed. They must be redefined as property rights so that they can be efficiently allocated. It is self-evident that the allocation of these scarce but vitally important resources will be a major problem of the twenty-first century and beyond. Population growth and further industrialization of the planet assure this. These simple facts make it essential for research to continue as rapidly as possible so that we can implement market solutions to the highly critical environmental problems facing us.



Combating Global Warming

ESC • OCTOBER 17, 2024

[Read full story](#) →

- 1992 Rio Earth Summit [81](#).

United Nations Framework Convention for Climate Change [82](#).

The Convention on Biological Diversity [83](#).

Agenda 21 [84](#).

While the UNFCCC in brief focuses on climate emissions (*and thus, permits*), the Convention on Biological Diversity takes the opposite side of that coin and focuses on sequestration. When these two are combined, they constitute the pivotal element of their 'Grand Plan' to drain Western nations of every penny. And though the framework treaty itself is a 'soft law' document, it does include language relating to carbon sinks and sources - where these work to enable future emission trading, offsetting and banking systems.

Agenda 21 also constituted another ultimately meaningless 'soft law' document, but it contained a carefully hidden definition of the future 'trisectional' global

governance system, comprising the Public-Private-Partnership working towards the ‘common good’ as set out by the third partner - the Civil Society Organisation. And though this system travels alongside Blair’s Third Way, it’s ultimately modelled on Lenin’s New Economic Policy.



The Grand Plan

ESC • JANUARY 30, 2024

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Agenda 21

ESC • NOVEMBER 7, 2024

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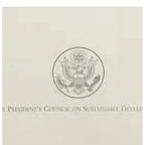
The New Economic Policy

ESC • JAN 7

[Read full story](#) →

- **1993 The President’s Council on Sustainable Development [85](#).**

This American initiative mirrors many other similar efforts, but with an emphasis on land management, thus logically explaining why the Ecosystem Approach was first formulated by the Interagency Ecosystem Management Task Force under Clinton and Gore (*see below*).



The President’s Council on Sustainable Development

ESC • NOVEMBER 8, 2024

[Read full story](#) →

- **1994 Combating Global Warming (UNCTAD/GID/8).**

A sequel to the 1992 report above (*analysed in linked substack article*), but this one outlines... what can really only be interpreted as grand scale corruption.

- **1995 The Ecosystem Approach v0.5.**

Whilst the Convention on Biological Diversity were certain that an ‘*Ecosystem Approach*’ was a necessity, no-one knew what it entailed. But the first outline materialised through a Task Force in the Clinton/Gore administration.



Interagency Ecosystem Management Task Force

ESC • JANUARY 6, 2024

[Read full story](#) →

- **1997 Kyoto - Emission Trading [86](#).**

This is, largely, the system progressively concocted by the UNCTED as detailed

above. But what is less acknowledged is the role of GLOBE behind the scenes ⁸⁷.

GLOBE EU 1989-1999

TEN YEARS OF ACTION FOR THE ENVIRONMENT

"Après les lobbyistes, de nouveaux acteurs sont apparus sur la scène bien rodée des conférences internationales : les élus du peuple"

Le Monde, 16 novembre 1998

GLOBE International

GLOBE, the **Global Legislators Organisation for a Balanced Environment** is a unique example amongst NGOs. In the late 1980's, in an otherwise internationally well organised and active environmental movement, the need for a global alliance of legislators was manifest. This need was not met until GLOBE came on the scene in 1989.

1989 The first founding meeting of the organisations was held in February of that year. Gathered in Washington D.C. at the behest of **Hemmo Muntingh** member of the European Parliament (MEP), a small number of members of the European Parliament and of the two chambers of the United States Congress officially launched "**The Inter-Parliamentary Consultative Group on the Environment and Animal Welfare**", as the organisation at first called itself and Hemmo Muntingh MEP became GLOBE EC's first President. Edward Seymour-Rouse was asked to assume responsibility for the secretariat from March 1989 which he did until May 1990 when François Roelants du Vivier, former Member of the European Parliament, was appointed Director.

The organisation's Statement of Intent, signed on 27th November 1989, defined its objectives and the methods for their achievement and following a suggestion by Edward Seymour-Rouse at its second founding meeting (Brussels, March 1989) its name was changed to : **Global Legislators Organisation for a Balanced Environment**. The document commits Parliamentarians joining the organisation to "*doing everything possible within their respective mandates to improve the global environment in the field of legislation*". **The Statement further identifies the natural and human environment, biological diversity and animal welfare as the focus of the organisation's work and underlines the "historic responsibility" of elected legislators to "leading humankind into a new era of sustainable use of the earth's resources"**.

adaptation of legislation in CEE to EC standards in favour of sustainable development.

Campaigns in 1996 and 1997

1996/1997 GLOBE Europe actively followed-up on the Ministerial Conference of Sofia, notably in the negotiations for a **European Convention on "Citizens Environmental Rights"** (access to information and public participation). It went on to tackle the climate change debate in the Third Conference of the Parties to the Climate Change Convention in Kyoto.

The campaign for the Kvyoto Protocol is one of the most significant ever organised by the organisation in Europe and world-wide. It is only fair to credit GLOBE members with a substantial contribution to the political mobilisation in favour of the agreement.

The campaign started in September of 1996, in the Austrian town of Linz. Parliamentarians and NGOs from 11 countries, decided to campaign for the inclusion of climate and energy policies on the agenda of national parliaments in Europe.

The organisation subsequently worked hard to mobilise a large number of elected representatives in order to put pressure on governments' negotiators meeting in Kyoto for the Third Conference of the Parties to the Climate Change Convention.

Besides a "**parliamentary alert**" mailed to all the 12000 elected parliamentarians of Europe, GLOBE EU organised the "**Climate Change Event**", a special conference which gathered 76 legislators from 27 countries and about 200 other decision-makers from the entire continent in Bonn in October 1997. The event offered a unique occasion for 3 EU Ministers, including Council President Johny Lahure, together with the Minister for Environment and Tourism of Zimbabwe, for members of parliament and for other stakeholders to debate climate change and harden Europe's political resolve in favour of an agreement. Less than 50 days later the Kyoto Protocol was signed.

The campaign's impact became manifest at the Kyoto conference itself, with 69 parliamentarians present working closely together. Their daily work over a week of negotiations combined with the fact that legislators were in close contact both with their own minister and with colleagues from around the world, was revealed as a powerful recipe at the Kyoto conference. An international Symposium hosted by GLOBE Japan and addressed by key negotiating actors, provided an opportunity to brief parliamentarians on the status of the talks and to facilitate the co-ordination of their input.

- 1998 IETA - Emission Trading Organisation ⁸⁸.

Yet another low profile initiative with Maurice Strong involvement.



The Carbon Currency
ESC • MAY 3, 2024
[Read full story →](#)

- 2000 The Ecosystem Approach (Malawi Principles) ⁸⁹.

The origin can be traced back to Rockefeller-funded HW Odum's Regionalism ⁹⁰, and the objective is ultimately top-down controlled **Integrated Landcape Management** ⁹¹. The sort, hinted at through the 1982 World Charter for Nature.



The Ecosystem Approach
ESC • DECEMBER 8, 2023
[Read full story →](#)



The World Charter for Nature
ESC • DECEMBER 3, 2023
[Read full story →](#)

- 2000 The Earth Charter ⁹².

The overriding emphasis of the Earth Charter is Planetary Stewardship, which should be achieved through **Planetary Ethics** ⁹³, codified into legislation.

Chapter IV
Planetary Ethics and Global Governance

Steven C. Rockefeller, Klaus Bosselmann, and Prue Taylor

A) Introduction

The Earth Charter states: “We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community.” The Earth Charter was drafted in an effort to address this need. This chapter considers the importance of a new planetary ethics for good global governance and international cooperation. Further, it describes the contributions the Earth Charter is making to the formation of a global ethics and to international law, and it describes some of the ways Earth Charter principles are being implemented worldwide.



The Earth Charter

ESC • NOVEMBER 9, 2024

[Read full story](#) →

- 2000 The Humanist Manifesto 2000 ⁹⁴.

Not only does this repeats the Earth Charter call for planetary ethics, but it even suggests *‘a new global agenda’*, and *‘a World Parliament elected by the people, an income tax to help the underdeveloped countries, the end of the veto in the Security Council, an environmental agency, and a world court with powers of enforcement’*. Technocratic rule, in short.

The Humanist Manifesto 2000: A Call for a New Planetary Ethics (2000)

[Paul Kurtz and the Center for Inquiry published a pamphlet by this title in 2000. The compressed statement is presented here.]

I. Preamble

Humanism is an ethical, scientific, and philosophical outlook that has changed the world. Its heritage traces back to the philosophers and poets of ancient Greece and Rome, Confucian China, and the Charvaka movement in classical India. Humanist artists, writers, scientists, and thinkers have been shaping the modern era for over half a millennium. Indeed, humanism and modernism have often seemed synonymous for humanist ideas and values express a renewed confidence in the power of human beings to solve their own problems and conquer uncharted frontiers.

II. Prospects for a Better Future

For the first time in human history we possess the means provided by science and technology to ameliorate the human condition, advance happiness and freedom, and enhance human life for all people on this planet.

III. Scientific Naturalism

The unique message of humanism on the current world scene is its commitment to scientific naturalism. Most world views accepted today are spiritual, mystical, or theological in character. They have their origins in ancient pre-urban, nomadic, and agricultural societies of the past, not in the modern industrial or postindustrial global information culture that is emerging. Scientific naturalism enables human beings to construct a coherent world view disentangled from metaphysics or theology and based on the sciences.

IV. The Benefits of Technology

Humanists have consistently defended the beneficent values of scientific technology for human welfare. Philosophers from Francis Bacon to John Dewey have emphasized the increased power over nature that scientific knowledge affords and how it can contribute immeasurably to human advancement and happiness.

V. Ethics and Reason

The realization of the highest ethical values is essential to the humanist outlook. We believe that growth of scientific knowledge will enable humans to make wiser choices. In this way there is no impenetrable wall between fact and value, is and ought. Using reason and cognition will better enable us to appraise our values in the light of evidence and by their consequences.

VI. A Universal Commitment to Humanity as a Whole

The overriding need of the world community today is to develop a new Planetary Humanism—one that seeks to preserve human rights and enhance human freedom and dignity, but also emphasizes our commitment to humanity as a whole. The underlying ethical principle of Planetary Humanism is the need to respect the dignity and worth of all persons in the world community.

VII. A Planetary Bill of Rights and Responsibilities

To fulfill our commitment to Planetary Humanism, we offer a *Planetary Bill of Rights and Responsibilities*, which embodies our planetary commitment to the well-being of humanity as a whole. It incorporates the *Universal Declaration of Human Rights*, but goes beyond it by offering some new provisions. Many independent countries have sought to implement these provisions within their own national borders. But there is a growing need for an explicit *Planetary Bill of Rights and Responsibilities* that applies to all members of the human species.

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VIII. A New Global Agenda

Many of the high ideals that emerged following the Second World War, and that found expression in such instruments as the *Universal Declaration of Human Rights*, have waned through the world. If we are to influence the future of humankind, we will need to work increasingly with and through the new centers of power and influence to improve equity and stability, alleviate poverty, reduce conflict, and safeguard the environment.

IX. The Need for New Planetary Institutions

The urgent question in the twenty-first century is whether humankind can develop global institutions to address these problems. Many of the best remedies are those adopted on the local, national, and regional level by voluntary, private, and public efforts. One strategy is to seek solutions through free-market initiatives; another is to use international voluntary foundations and organizations for educational and social development. We believe, however, that there remains a need to develop new global institutions that will deal with the problems directly and will focus on the needs of humanity as a whole. These include the call for a bicameral legislature in the United Nations, with a World Parliament elected by the people, an income tax to help the underdeveloped countries, the end of the veto in the Security Council, an environmental agency, and a world court with powers of enforcement.

X. Optimism about the Human Prospect

Finally, and perhaps most importantly, as members of the human community on this planet we need to nurture a sense of optimism about the human prospect. Although many problems may seem intractable, we have good reasons to believe that we can marshal our talent to solve them, and that by goodwill and dedication a better life will be attainable by more and more members of the human community. Planetary humanism holds forth great promises for humankind. We wish to cultivate a sense of wonder and excitement about the potential opportunities for realizing enriched lives for ourselves and for generations yet to be born.

Amsterdam Declaration 2002

[The 50th anniversary World Humanist Congress in Amsterdam in 2002 passed this resolution, which was subsequently approved by the IHEU General Assembly.]

Humanism is the outcome of a long tradition of free thought that has inspired many of the world's great thinkers and creative artists and gave rise to science itself.

The fundamentals of modern Humanism are as follows:

1. **Humanism is ethical.** It affirms the worth, dignity and autonomy of the individual and the right of every human being to the greatest possible freedom compatible with the rights of others. Humanists have a duty of care to all of humanity including future generations. Humanists believe that morality is an intrinsic part of human nature based on understanding and a concern for others, needing no external sanction.
2. **Humanism is rational.** It seeks to use science creatively, not destructively. Humanists believe that the solutions to the world's problems lie in human thought and action rather than divine intervention. Humanism advocates the application of the methods of science and free inquiry to the problems of human welfare. But Humanists also believe that the application of science and technology must be tempered by human values. Science gives us the means but human values must propose the ends.
3. **Humanism supports democracy and human rights.** Humanism aims at the fullest possible development of every human being. It holds that democracy and human development are matters of right. The principles

21

- 2006 Al Gore: An Inconvenient Truth ⁹⁵.

Gore releases highly controversial documentary, which contains a litany of errors and mispredictions. He further refuses to take an energy ethics pledge; 'rules for thee, but not me' ⁹⁶.



Gore Refuses Pledge

Day 268

OF FORMER VICE-PRESIDENT AL GORE'S REFUSAL TO TAKE THE "PERSONAL ENERGY ETHICS PLEDGE"

- 2007 U.S. Senate Report: Over 400 Prominent Scientists Disputed Man-Made Global Warming Claims in 2007 ⁹⁷.

U.S. Senate Committee on Environment & Public Works

Senate Report

U.S. Senate Report: Over 400 Prominent Scientists Disputed Man-Made Global Warming Claims in 2007

Senate Report Debunks "Consensus"

Report Released on December 20, 2007
U.S. Senate Environment and Public Works Committee (Minority)

INTRODUCTION:

Over 400 prominent scientists from more than two dozen countries recently voiced significant objections to major aspects of the so-called "consensus" on man-made global warming. These scientists, many of whom are current and former participants in the UN IPCC (Intergovernmental Panel on Climate Change), criticized the climate claims made by the UN IPCC and former Vice President Al Gore.

The new report issued by the Senate Environment and Public Works Committee's office of the GOP Ranking Member details the views of the scientists, the overwhelming majority of whom spoke out in 2007.

Even some in the establishment media now appear to be taking notice of the growing number of skeptical scientists. In October, the Washington Post Staff Writer Juliet Eilperin conceded the obvious, writing that climate skeptics "appear to be expanding rather than shrinking." Many scientists from around the world have dubbed 2007 as the year man-made global warming fears "bite the dust." (LINK)

In addition, many scientists who are also progressive environmentalists believe climate fear promotion has "co-opted" the green movement. (LINK)

This blockbuster Senate report lists the scientists by name, country of residence, and academic/institutional affiliation. It also features their own words, biographies, and weblinks to their peer-reviewed studies and original source materials as gathered from public statements, various news outlets, and websites in 2007. This new "consensus busters" report is poised to redefine the debate.

Many of the scientists featured in this report consistently stated that numerous colleagues shared their views, but they will not speak out publicly for fear of retribution. Atmospheric scientist Dr. Nathan Paldor, Professor of Dynamical Meteorology and Physical Oceanography at the Hebrew University of Jerusalem, author of almost 70 peer-reviewed studies, explains how many of his fellow scientists have been intimidated.

"Many of my colleagues with whom I spoke share these views and report on their inability to publish their skepticism in the scientific or public media," Paldor wrote. (Note: See also July 2007 Senate report detailing how skeptical scientists have faced threats and intimidation - LINK)

Scientists from Around the World Dissect

This new report details how teams of international scientists are dissenting from the UN IPCC's view of climate science. In such nations as Germany, Brazil, the Netherlands, Russia, New Zealand and France, nations, scientists banded together in 2007 to oppose climate alarmism. In addition, over 100 prominent international scientists sent an open letter in December 2007 to the UN stating attempts to control climate were "futile." (LINK)

Paleoclimatologist Dr. Tim Patterson, professor in the department of Earth Sciences at Carleton University in Ottawa, recently converted from a believer in man-made climate change to a skeptic. Patterson noted that the notion of a "consensus" of scientists aligned with the UN IPCC or former Vice President Al Gore is false. "I was at the Geological Society of America meeting in Philadelphia in the fall and I would say that people with my opinion were probably in the majority."

This new committee report, a first of its kind, comes after the UN IPCC chairman Rajendra Pachauri implied that there were only "about a dozen" skeptical scientists left in the world. (LINK) Former Vice President Gore has claimed that scientists skeptical of climate change are akin to "The Earth society members" and similar in number to those who "believe the moon landing was actually staged in a movie lot in Arizona." (LINK) & (LINK)

The distinguished scientists featured in this new report are experts in diverse fields, including: climatology; oceanography; geology; biology; glaciology; biogeography; meteorology; oceanography; economics; chemistry; mathematics; environmental sciences; engineering; physics and paleoclimatology. Some of those profiled have won Nobel Prizes for their outstanding contribution to their field of expertise and many shared a portion of the UN IPCC Nobel Peace Prize with Vice President Gore.

Additionally, these scientists hail from prestigious institutions worldwide, including: Harvard University; NASA; National Oceanic and Atmospheric Administration (NOAA) and the National Center for Atmospheric Research (NCAR); Massachusetts Institute of Technology; the UN IPCC; the Danish National Space Center; U.S. Department of Energy; Princeton University; the Environmental Protection Agency; University of Pennsylvania; Hebrew University of Jerusalem; the International Arctic Research Centre; the Pasteur Institute in Paris; the Belgian Weather Institute; Royal Netherlands Meteorological Institute; the University of Helsinki; the National Academy of Sciences of the U.S.; France, and Russia; the University of Pretoria; University of Notre Dame; Stockholm University; University of Melbourne; Columbia University; the World Federation of Scientists; and the University of London.

The voices of many of these hundreds of scientists serve as a direct challenge to the often media-hyped "consensus" that the debate is "settled."

A May 2007 Senate report detailed scientists who had recently converted from believers in man-made global warming to skepticism. (See May 15, 2007 report: Climate Momentum Shifting: Prominent Scientists Reverse Belief in Man-made Global Warming - Now Skeptics: Growing Number of Scientists Convert to Skepticism After Reviewing New Research - LINK) - In addition, an August 2007 report detailed how proponents of man-made global warming fears enjoy a monumental funding advantage over skeptical scientists. (LINK)

The report counters the claims made by the promoters of man-made global warming fears that the number of skeptical scientists is dwindling.

Examples of "consensus" claims made by promoters of man-made climate fears:

Former Vice President Al Gore (November 5, 2007): "There are still people who believe that the Earth is flat." (LINK) Gore also compared global warming skeptics to people who "believe the moon landing was actually staged in a movie lot in Arizona" (June 20, 2006 - LINK)

CNN's Miles O'Brien (July 23, 2007): "The scientific debate is over." "We're done." O'Brien also declared on CNN on February 9, 2006 that scientific skeptics of man-made catastrophic global warming "are bought and paid for by the fossil fuel industry, usually." (LINK)

On July 27, 2006, Associated Press reporter Seth Borenstein described a scientist as "one of the few remaining scientists skeptical of the global warming harm caused by industries that burn fossil fuels." (LINK)

Dr. Rajendra Pachauri, Chairman of the IPCC view on the number of skeptical scientists as quoted on Feb. 20, 2003: "About 300 years ago, a Flat Earth Society was founded by those who did not believe the world was round. That society still exists; it probably has about a dozen members." (LINK)

Agence France-Press (AFP Press) article (December 4, 2007): The article noted that a prominent skeptic "finds himself increasingly alone in his claim that climate change poses no imminent threat to the planet."

Andrew Dessler in the eco-publication *Crist Magazine* (November 21, 2007): "While some people claim there are lots of skeptical climate scientists out there, if you actually try to find one, you keep turning up the same two dozen or so (e.g., Singer, Lindzen, Michaels, Christy, etc., etc.). These skeptics are endlessly recycled by the denial machine, so someone not paying close attention might think there are lots of them out there -- but that's not the case. (LINK)

The Washington Post asserted on May 23, 2006 that there were only "a handful of skeptics" of man-made climate fears. (LINK)

UN special climate envoy Dr. Gro Harlem Brundtland on May 10, 2007 declared the climate debate "over" and added "it's completely immoral, even to question" the UN's scientific "consensus." (LINK)

ABC News Global Warming Reporter Bill Blakemore reported on August 30, 2006: "After extensive searches, ABC News has found no such [scientific] debate" on global warming. (LINK)

Brief highlights of the report featuring over 400 international scientists:

Israel: Dr. Nathan Paldor, Professor of Dynamical Meteorology and Physical Oceanography at the Hebrew University of Jerusalem has authored almost 70 peer-reviewed studies and won several awards. "First, temperature changes, as well as rates of temperature changes (both increase and decrease) of magnitudes similar to that reported by IPCC to have occurred since the Industrial revolution (about 0.8C in 150 years or even 0.4C in the last 35 years) have occurred in Earth's climatic history. There's nothing special about the recent rise!"

Russia: Russian scientist Dr. Oleg Sorochin of the Institute of Oceanology at the Russian Academy of Sciences has authored more than 300 studies, nine books, and a 2006 paper titled "The Evolution and the Prediction of Global Climate Changes on Earth." "Even if the concentration of 'greenhouse gases' double man would not perceive the temperature impact," Sorochin wrote.

Spain: Anton Uriarte, a professor of Physical Geography at the University of the Basque Country in Spain and author of a book on the paleoclimate, rejected man-made climate fears in 2007. "There's no need to be worried. It's very interesting to study [climate change], but there's no need to be worried," Uriarte wrote.

Netherlands: Atmospheric scientist Dr. Hendrik Tennekes, a scientific pioneer in the development of numerical weather prediction and former director of research at The Netherlands' Royal National Meteorological Institute, and an internationally recognized expert in atmospheric boundary layer processes, "I find the Doodson picture Al Gore is painting - a six-meter sea level rise, fifteen times the IPCC number - entirely without merit." Tennekes

- 2007 IPCC officials admit mistake over melting Himalayan glaciers ⁹⁸.
When an 'error' in this regard is even covered by the Guardian, you know it's bad.

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Glaciers

● This article is more than 14 years old

IPCC officials admit mistake over melting Himalayan glaciers

Senior members of the UN's climate science body admit a claim that Himalayan glaciers could melt away by 2035 was unfounded

Damian Carrington
Wed 20 Jan 2010 14:26 GMT

Share 219



The Himalayas. The row centres on the IPCC's 2007 report, which said 'glaciers in the Himalayas are receding faster than in any other part of the world.' Photograph: Getty

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- 2009 Focus on Copenhagen ⁹⁹.
I will let these quotes speak for themselves -
'2020 as the year for grand action... Sir Nicholas Stern... a comprehensive plan must be drawn up to ensure world focus on an ultimate solution... a global carbon trading system with a strict descending world cap as the only means forward... we must move to a global emissions trading system and create a one single common carbon price world-wide so that the price signal does all the tricks... Transforming the UNFCCC into a World Climate and Energy Council'

A. Focus on Copenhagen

1. Going to a low carbon rather than stopping global warming.

With the divide between developed and developing countries running so deep, we cannot win this battle. This is one lesson which I have learnt from my short experiences as a climate negotiator. In order to overcome this binary division, I have come to conclude that we better forget about climate change. Instead, we would do better to focus our attention on how to win the global game of the 21st century. Let's follow this strategy, if it is likelier to eliminate the division and forge consensus for common action.

If we talk about climate change, we tend to focus on historical responsibility, fair burden sharing, equity between rich and poor, finger-pointing and such sort of things. Ideological divide won't subside and no proactive process ensues.

If, on the other hand, it is a matter of winning the global game of the new century, one must proceed quicker and deeper towards low carbon, by reducing one's emissions drastically and increasing energy efficiency, no matter what your neighbors do or do not do. This is the new enlightened attitude which must militate against the traditional "you reduce more than me" attitude.

In the globalization of the 21st century, the quicker and deeper one transfers to a low carbon civilization, the better off one is in terms of competitiveness, technological development, sustainable growth and energy security. No nation can expect to prevail in the global competition as long as it remains fossil-fuel dependent. Unless you get to the bottom of it, you have lost.

1

In fact President Obama has just carried the day and may continue to take the initiative in the new game. Obama's proposed stimulus package is to total at least \$US775 billion and for the Green New Deal, \$US150 billion over ten years, to create five million green jobs, modernize energy infrastructure and reduce carbon pollution by 80 per cent by 2050.

This has provoked a chain reaction of countries emulating this concept. European countries, Mexico, China and Japan are all joining ranks with the US. And the latest on board is Australia. A few days ago, the Sydney Morning Herald encapsulated the Aussie spirit just rightly and wrote, "There is no time to lose if we want to avoid falling behind the US and other developed nations in the race for green jobs growth and tackling dangerous climate change." ("Obama's green plan 'good for Australia' SMH January 9, 2009)

2. Enabling culture by working on reality rather than theory

For Copenhagen to be effective, it must build a new enabling culture. Target numbers are necessary but they are not enough. What is needed is that the community work together to enable countries to achieve those targets. And this must be done on the basis of reality, not on the basis of theory.

Despite the tremendous amount of climate discussions, there has scarcely been progress toward a congenial partnership, toward a new culture of enabling. Why? In my view, it is due to the way in which climate discourse has been held which tends to go adrift on the side of theory rather than reality.

Technology transfer is a case on this point. Countries tend to deal with this issue in a generic context. But if we instead deal with technology transfer in the context of realities such as Guangdong Province, China, or Sub-Saharan Africa, for example, we are likelier to achieve better results.

If we collaborate with host countries on their real projects such as

2

to modernize coal firing power plants within xx years, then it is likelier that this collaborative effort would provide the most efficient and fitting clean technologies, procure financing, establish suitable business links, help build local capacity, deal with intellectual property rights and all other related issues more quickly and practically.

Working together on the basis of reality provides quicker results than working on the basis of generic theory. More importantly it will create a new sense of positive cooperation, a sense of partnership, a sense of trust amongst nations, rich and poor. And this sense of partnership and trust is absolutely indispensable for the world to de-carbonize itself and to enhance the sustainable growth of all nations at the same time.

3. Transforming the UNFCCC into a World Climate and Energy Council

A global climate challenge of this magnitude cannot be properly met with the UNFCCC if it continues to function basically as a static, treaty drafting institution. As the treaty drafting runs its course, the UNFCCC needs to become a world headquarters to energize and spearhead actions crucially needed to achieve the in-time transition to a low carbon world, by ensuring the short-term peak and decline as well as the long-term reduction of global GHG emissions.

New dynamic policy coordination is absolutely necessary in order to spearhead real actions on a global scale to fend off a climate catastrophe. National targets and sectoral targets are effective in the implementation of countries' commitments. Yet, energy efficiency for example, will be best pushed forward if there is a constant whistle blower. There are other areas where the constant supply of information about innovative policies and measures, needs to become best practice.

Put simply, global actions must be distinctly energized. A world high council must roll back its sleeves and call the shots to push

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world transformation forward. Fundamentally, we need the formation of a "Situation Room" which could be called a "World Climate and Energy Council".

The developing world must be assured that a high world council will spearhead a new congenial cooperation and safeguard their sustainable development. Developing nations must also be assured that there will be a new genuine world process committed to develop technology and implement its transfer which is both adaptable and effective.

B. Focus on post-Copenhagen

1. 2020 as the year for grand action

Despite the tremendous effort Copenhagen will elicit from all countries, there remains much to do. Copenhagen does not put the locomotive in full steam. The timing of the US domestic legislation is unknown. Major developing countries have yet to come much to the fore. And there is the exceptional challenge, of reducing 40GT by 2030 from BAU of 70GT which cannot be met by December 2009. Copenhagen is far from being the panacea.

By force, we must look at post-Copenhagen. Sir Nicholas Stern puts the year 2020 as the year for major developing countries to take on binding targets, if not earlier. By 2020, a comprehensive plan must be drawn up to ensure world focus on an ultimate solution.

2. In search of an ultimate solution which is surest and cheapest

In my view, due to the ever increasing seriousness of climate change, discussions must undergo a thorough remodeling to ensure that any recipe or proposal for the solution hence forth must detail numerically, how and when climate stability would be realized. Proposals that simply delineate a reduction of xx GT are no longer valid so long as they do not spell out a convincing methodology to arrive there.

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This is necessary as the world can ill afford to undertake a global endeavor of this magnitude without knowing exactly what can realistically be achieved in 50 years time. And critically, the world can ill afford to undertake a global endeavor of this magnitude without assuring ourselves that we will achieve an acceptable level of climate stability from our efforts.

Half-minded efforts are not a good strategy. There is no middle ground: we either win the battle or lose it. If the world sets out to do all this, we must win it. We must win it with the least sacrifice. And we must be sure we are taking surest strategy to win this battle whilst incurring the least possible cost.

Hence the surest recipe is indispensable. And fundamentally that recipe must be the least expensive as the specter of huge costs might cause people to pull the punch.

The surest recipe to achieve climate stability is to cap global GHG emissions for decades to come. The cheapest recipe is to allow the abatement to take place wherever it is cheapest.

If you seek the surest way to stabilize the climate, you have no alternative but to cap global emissions. If you seek the cheapest recipe, you have no alternative but to start abating wherever it is cheapest to do so in the world. These two requirements design a global carbon trading system with a strict descending world cap as the only means forward. Almost by force, we must move to a global emissions trading system and create a one single common carbon price world-wide so that the price signal does all the tricks.

Thus in my view a global carbon trading system with a forceful descending global cap is the surest and cheapest way to stabilize the climate. A technology development treaty will greatly help enhance this recipe.

Since the surest recipe caps global emissions, it crucially does not

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cap national emissions nor companies' emissions. It is more effective to talk about the whole volume of carbon (carbon budget) the world can emit than to talk about national reductions or company specific reductions. The basic idea is to deem global emissions as those of one nation and to let the cheapest abatement opportunities be exploited first.

3. Upstream global emission trading is the way to go rather than linking downstream ETSs

According to a recent Greenwire report, "Exxon Mobil Chairman and CEO Rex Tillerson said at the Woodrow Wilson Center debates on January 8 this year, that the United States should tax greenhouse gas emissions rather than implement a cap-and-trade program favored by President-elect Barack Obama and powerful congressional Democrats.

He is quoted as saying "As a businessman, it's hard to speak favorably about any new tax, but a carbon tax strikes me as a more direct, transparent and effective approach."

"A carbon tax would avoid the cost and complexity of having to build a massive trading market and a bureaucracy of regulators to ensure its transparency and effectiveness" Tillerson also charged that such a market would have "inherent problems with verification and accountability."

"It is important to remember that a cap-and-trade system requires a new market infrastructure for traders to trade emissions allowances." "This new Wall Street of emissions brokers will take the emphasis away from the goal of reducing carbon emissions and focus its attention on trading from price volatility."

Well, this is an important development. It is remarkable that people like Tillerson now agree to put a price on carbon in the form of a tax in order to curb emissions. I argue though, that C&T is a more appropriate and effective instrument than tax as C&T sets a cap on the emissions and forces those emissions to actually

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diminish to the pre-set level, crucially something which tax cannot do.

But his remarks do shed light on one of the crucial aspects of the emission trading system.

If the US goes to downstream C&T, very much the way the EUEETS is organized checking numerous individual emission points every year, then he is right, this will incur a huge administrative burden. As he puts it, there will be "inherent problems with verification and accountability".

If the world is to create a global carbon market on the basis of those downstream ETSs as it is suggested in many prominent papers around the world, Mr. Tillerson's problem is going to be exponentially compounded.

For one, I don't think China can cope with the huge administrative burden required to check emissions of their million enterprises, let alone all other developing countries. An attempt to globalize the carbon market will go only so far but will never reach the point where a single common carbon price is created globally.

Therefore, nations must proceed with the upstream C&T system checking only custom statistics related to the importation of fossil fuels thus avoiding bureaucracy. European emission trading system (EUEETS) is a downstream approach and therefore, in my view, must eventually change to upstream.

The most efficient carbon market is one which gives rise to a single common carbon price world-wide to continue for the decades to come, not for some time to come. And this, coupled with a declining and forceful cap on global GHG emissions, in conjunction with a set of concomitant technology policies, will be the most powerful and surest way to achieve climate stability whilst incurring the least global cost.

Critically nations must agree to cap global emissions (not national emissions nor companies' specific emissions) so as to stabilize the climate by 2050. By cutting global emissions more than 50%, and practicing global carbon trading, we can achieve climate stability with the least cost and the least bureaucracy.

In fact there will be no more talks on imposing national caps and its compliance. There will be no more talks about off-setting nor safety valve because the global carbon market will allow enterprises to seek the cheapest abatement opportunities all over the world. There will no longer be issues of competitiveness nor carbon leakage as the carbon price will be the same all over the world.

Indeed, global upstream ETS is undoubtedly pro business. As long as any country, any company, any steel mill is competitive with the prevailing carbon price, it can burn as much fossil fuel as it wishes. It is not a growth stifling system. It is a pro-business method for achieving climate stability.

It is also pro-lean government in that it does not necessitate the establishment of a tremendous honey-comb of bureaucracy. This is the leanest and least cumbersome way to achieve climate stability.

Sounds great but this is not my invention, of course. This is a recipe which has existed for some time but people have just dismissed it as impracticable for one reason or another.

4. Isn't the world a different place 5-10 years later?

It is impracticable as long as the world doesn't agree to put a lid on GHG emissions over the 50 years from now. As long as the much desired shared long-term vision to stabilize climate remains hazy, it is impracticable. Where developing countries remain skeptical about the merit in favor of their sustainable growth, it is impracticable. Until rich countries come to understand that the initial allocation of allowances based on common but

differentiated responsibilities will not mean any big transfer of resources to the developing countries, it remains impracticable.

But much will change in 5-10 years time. People in the developed world will have a better understanding of the merit of the upstream global emission trading system as the requirements for the surest and cheapest solutions grow stronger every passing year.

Developing countries will require time to mull over the new scheme. But I am convinced that by the time they have to take numerical abatement commitments, they will find global emissions trading an attractive method as it will be compatible with their growth perspective.

Regarding the issue of the enforcement of a global cap to ensure climate stabilization, a new discussion is being heard even in the developing countries tent. Chinese scholars are now talking about the need to halve global emissions by 2050 ("Carbon Budget Proposal" by Jiahua PAN, Ying CHEN, Wenjun WANG, Chenxi LI presented on December 8, 2008 at the China's Side Event at Poznan COP14) indicating that the time must come sooner or later when the developing world will share the global commitment.

In my view, it is possible that developing countries will eventually make some quantum leaps like accepting a long-term shared vision, and agreeing with the global long-term reduction path which will lead to an acceptable level of climate stability. But this will only happen if the rich countries share fully developing countries' legitimate concerns and aspirations for fairness and equity, for their sustainable development and poverty eradication.

Fantasy? Well, it may well be for some time to come, but if it continues to be deemed fantasy for decades to come, the planet would be in a real danger.

5. In concluding...

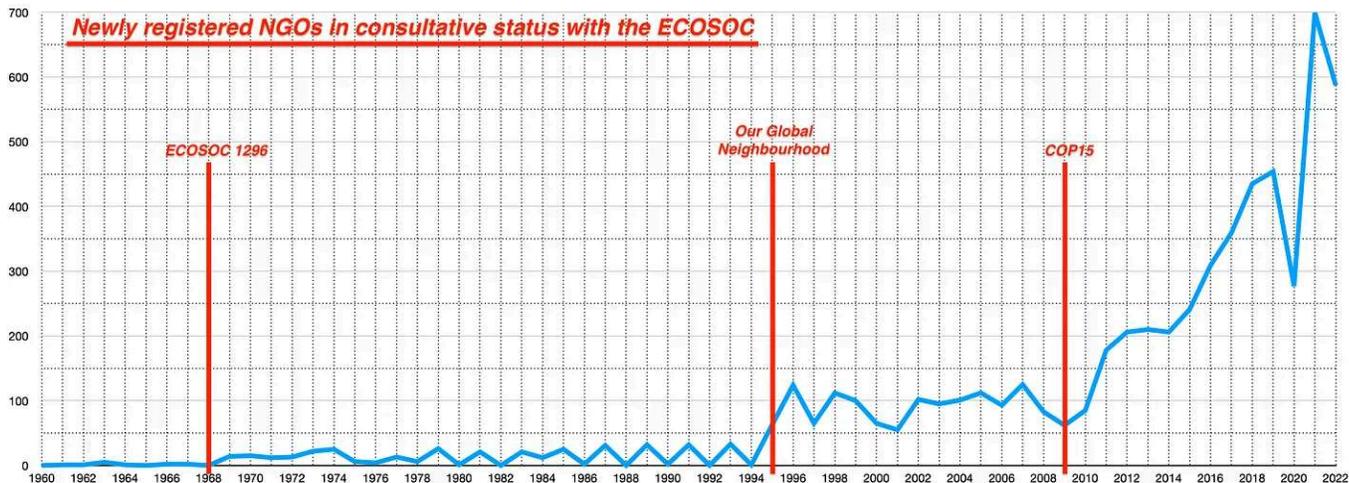
What I would like, is to urge you to think about the post-Copenhagen perspective. And to think about how serious the issue will be in just a matter of years.

If the international community rises up to the challenge of climate change and mobilizes global efforts of this magnitude, we must ensure success to avoid catastrophe. Half-minded efforts are not a good strategy. It is almost like President Bush saying, "Are you with us or with them?" If we fight against climate change, we have to win it. So the question we have to ask is, are we here to save it or lose it? At the very least, we must snatch victory from the jaws of defeat. Hence my search for the surest and the cheapest solution.

Thank you.

• 2009 Copenhagen Accord [100](#).

Though commonly described as 'a failure', this event was anything but - easily observable through the explosion in annual NGO registrations, seeking to peddle influence at the highest levels of international diplomacy.



A UNFCCC/CBD synthesis.

OCTOBER 9, 2024

[Read full story](#) →

• 2009 Climategate [101](#).

The real story is actually the cover-up - not only because the claim of this merely being an 'email controversy' is an outright lie.



Climategate

OCTOBER 8, 2024

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- **2010 GLOBE Legislators/Slanted inquiries** [102](#).

The investigations following Climategate were nothing short of evidence of systemic corruption (*further on this in substack article above*).

By Andrew Montford

At the end of 2009 hundreds of emails were hacked or leaked from the servers of the Climatic Research Unit at the University of East Anglia. The emails appeared to show scientists at the very centre of global warming science manipulating and withholding data, perverting the peer review process in order to keep their critics from publishing in the academic literature and having much more sanguine private views of climate science than the ones they presented to the public. There was a worldwide furore as the possible implications for policymakers sank in.

A number of inquiries were set up in the wake of the allegations. In the U.K., the House of Commons science and technology committee held a brief investigation, regrettably curtailed by the impending general election. The University of East Anglia, meanwhile, set up two panels, under Lord Oxburgh and Sir Muir Russell. All three inquiries have now presented their findings and, while making minor criticisms of the scientists involved, all have largely exonerated them of serious wrongdoing.

However, as I show in a recently published report, there is now overwhelming evidence that there were serious problems with the conduct of the inquiries. Public and policymakers alike can no longer regard their findings as reliable.

For example, it is clear that there was no attempt to appoint panels representing a balance of opinion regarding the climate change issue. Lord Oxburgh has been much criticized for taking on his Scientific Assessment Panel while having business interests in wind farms and green capital investment firms.

Since the Oxburgh panel reported, emails obtained under the Freedom of Information Act have shown that senior members of the scientific establishment in the U.K. tried to ensure that the panel would have no skeptics on board and that they expected that only a minority of its members would look at the inquiry with "questioning objectivity." The Russell panel appears to have been little better, with no known skeptics on board, but several vocal campaigners for the global warming cause.

One of the most serious findings is the way the inquiries' terms of reference, which were either vague or non-existent, steered the panels away from many of the most important questions.

The Oxburgh panel was advertised as looking at the whole of CRU's science, but it ended up looking only for evidence of deliberate wrongdoing and then only in a carefully selected set of CRU publications. This meant that serious allegations relating to the work of CRU staff on the IPCC reports went uninvestigated.

What is worse, although the public was told that this short list of papers was selected on the advice of the Royal Society, in fact they were chosen by the University of East Anglia itself and were approved by Phil Jones, CRU's director and the man at the centre of many of the most serious allegations.

A number of other very serious allegations were not examined or were brushed aside on the say-so of CRU staff. Lord Oxburgh admitted in evidence to the science and technology committee last week that his panel had failed to investigate a well-documented and well-publicized allegation of fraud relating to one of the papers that appeared on his list.

The Russell panel, meanwhile, appears to have cleared Phil Jones of the allegation of perverting the peer-review process, based on little more than Jones' say-so.

One of the most serious allegations related to possible breaches of the U.K.'s Freedom of Information Act. In recent days it has emerged that Russell was informed early in his investigation that emails subject to FOI requests were no longer available at the university, since the scientist involved had taken them home for "safekeeping," a remarkable step that could indicate a breach of FOI legislation and yet is not even discussed in Russell's report.

It is no longer simply a small group of skeptics who are watching the outcome of the Climategate affair. Scientists from around the world, including some senior people working in the field of climate, have looked at what has happened here in the U.K. in the last 12 months and they are shocked by what they have seen. The American climatologist Prof. Judith Curry has described the Oxburgh panel as having "little credibility," while Prof. Hans von Storch, the eminent German climatologist, has said that the U.K. inquiries "blew an opportunity to restore trust."

While some of the press reaction to the report has suggested that it will be ignored, one member of the House of Commons science and technology committee who attended the press conference for the report's release went on the record as saying that he had been shocked by some of what he had learned. He described some of CRU's work as being more like "literature" than science.

Regardless of how the press views my report into the inquiries, it appears clear that Parliament is taking the concerns it raises very seriously. The science and technology committee has already reopened its inquiry, taking evidence from Oxburgh last week and with Russell and the vice-chancellor of the university expected in the coming weeks.

Perhaps now that the sham of the inquiries has been exposed to public view, Parliament will seize the day and save British science from itself.

Financial Post

Andrew Montford's report, *The Climategate Inquiries*, is published by the Global Warming Policy Foundation. He is the author of *The Hockey Stick Illusion*, a history of some of the events leading up to Climategate.

- **2010 GLOBE/CBD Nagoya Protocol** [103](#).

Efforts relating to 'Natural Capital' started with the Nagoya Protocol, but - *as per usual* - operating from the shadows, GLOBE helped efforts along nicely.



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**NAGOYA DECLARATION
On Parliamentarians and Biodiversity**

We, the Parliamentarians participating in the GLOBE & CBD Parliamentarians and Biodiversity Forum held on the occasion of the tenth meeting of the Conference of the Parties (COP10) to the United Nations Convention on Biological Diversity (CBD), in Nagoya, Japan, on 25th - 26th Oct 2010,

Regret the failure by the international community to meet the 2010 biodiversity target at a global level and within our own countries and regions,

Express our deep concern at the continuing acceleration of biodiversity loss, ecosystem degradation and the far-reaching environmental, social, economic and cultural impacts of this; despite the scientific evidence to support action and the availability of policy tools to halt these trends

Recognise the essential role of parliamentarians in influencing the decisions of governments and translating the consensus reached internationally into tangible actions at the national level, giving environmental issues a more prominent position in their domestic political mainstream, integrating it more closely into the national policy-making and legislative processes and in particular into budgetary frameworks,

Call for a transition to a new global economy where the true values of biodiversity, ecosystem services and natural capital are carefully integrated into policy making processes at all levels of government, the private sector and civil society, as proposed in the GLOBE Natural Capital Action Plan, and recommend that this is achieved by:

Incorporating the valuation of natural capital into the framework of government accounts,

Instructing all government departments to prepare inventories of the natural capital and ecosystems that fall within their ambit or are affected by their policy decisions,

Creating a ministerial position within the Finance Ministry to work with the department of environment in assessing the value of natural capital in departmental inventories and regulating the use of the country's natural wealth,

Ensuring that the national Finance Ministry develops a set of Natural Capital Accounts that is accompanied by an annual report that outlines the status of biodiversity, ecosystem services and natural capital, as appropriate,

Encouraging national audit offices to adopt the natural capital approach when examining the effectiveness and efficiency by which government departments use their resources and apply cost benefit analyses.

We declare that the CBD COP10 is a critical juncture for international efforts to achieve sustainable development and harmony between the environment, the economy and society and identify four critical elements for the successful implementation of the Convention as follows:

Support and approval of a new strategic plan for the CBD, which includes realistic global targets, has a clear focus on implementation and is in line with the recommendations made by the GLOBE International Commission on Land Use Change and Ecosystems,

Greater financial support for the GEF as the financing mechanism of the Convention,

The establishment of an Access and Benefit Sharing (ABS) Protocol under the CBD, which allows for the equitable sharing of the benefits that arise from using genetic resources between the users and providers of genetic materials.

Increased financial support for developing countries in order to ensure that the necessary measures can be implemented,

We welcome the inclusion of the strategic goals and targets in the strategic plan for 2020 and offer our political support to help achieve these through our participation in the ongoing workstreams of GLOBE International including offering our,

Support for Strategic Goal A, "Address the underlying causes of biodiversity loss by mainstreaming across government and society" through the GLOBE Natural Capital Initiative, which will raise political awareness (Target 1), integrate the value of natural capital into national accounts (Target 2), promote the reform of environmentally-damaging subsidies (Target 3), and call for sustainable production and consumption across government and business (Target 4), by creating an international leadership group of legislators to advance the GLOBE Natural Capital Action Plan through legislation and government policy changes,

Support for Strategic Goal B, "Reduce the direct pressures on biodiversity and promote sustainable use" through the GLOBE Legislator Rainforest Initiative, which will address the degradation and fragmentation of natural habitats (Target 5) and sustainable management of forests (Target 7), by placing legislators at the forefront of developing national forest policies; and the GLOBE Marine Ecosystems Recovery Strategy, which will promote the sustainable management of marine fisheries, and address overfishing (Targets 6), promote sustainable aquaculture (Target 7), prevent pollution and nutrient loading in coastal zones and the open seas (Target 8), encourage the eradication of invasive species (Target 9) and minimize the multiple pressures on coral reefs (Target 10), by developing an international leadership group of marine legislators,

Support for Strategic Goal C, "To improve the status of biodiversity by safeguarding, species and genetic diversity", through the programmes outlined above, which include a specific focus on the need for parliamentarians to support well-connected systems of effectively managed protected areas both in the terrestrial and marine ecosystems (Target 11),

Support for Strategic Goal D, "Enhance the benefits to all from biodiversity and ecosystem services", through the programmes outlined above, which include a specific focus on all relevant stakeholders in policymaking (Target 14), and boosting ecosystem resilience to support climate change mitigation and adaptation (Target 15),

Support for Strategic Goal E, "Enhance implementation through participatory planning, knowledge management and capacity-building", through the programmes outlined above, which include a specific focus on national policy instruments (Target 17), indigenous practices and traditional knowledge (Target 18), improving the base of scientific information (Target 19) and increasing human and financial resources for achieving the above targets (Target 20).

Nagoya, Japan, 26th October 2010

• 2011 GLOBE Legislators/BBC/Climategate Corruption 104.

Set up with the backing of Tony Blair, then the Prime Minister, and run by a group of British MPs and peers the organisation, GLOBE International, started life as an All Party Group based in the House of Commons. It is now run as an international climate change lobbying group flying its supporters and experts club class to international summits to push its agenda. Last year, it said, it spent around £500,000 flying its supporters to these meetings.

Complus, which was awarded DfID cash last year and in 2006, says it has a "longing relationship with GLOBE" having first "shadowed negotiators" based in Costa Rica which is also supported by the BBC World Service Trust, the Corporation's independent charity.

A spokesman for Complus said: "GLOBE is a founding member not a funding member. They can make in-kind contributions, like organising events, supporting logistics, sharing content."

The spokesman said: "These contributions were awarded under the previous Government. The current Government has not given them any funding."

"We only support projects that meet our strict conditions of delivering value for money and can prove their ability to reduce global poverty."

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The Zoological Society of London, the world's foremost charity behind London Zoo, provides GLOBE with scientific advice from its top conservationists and zoologists. GLOBE said it paid ZSL for its expertise.

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"We facilitate them coming together to discuss environmental issues. Our members have multiple views - some quite sceptical on some aspects of the climate change debate."

"We are funded by the World Bank, the EU, international parliamentarians and governments, including the UK Government. The coalition Government contributes to our work through DFID."

GLOBE International, registered as a not-for-profit firm under the name The Global Legislators Organisation Ltd, makes minimal disclosures about its finances to Companies House. Last year it declared a £500,000 loss, but still managed to fly a number of key supporters to summits and international conferences.

Barry Gardiner MP, its vice president and former Labour biodiversity minister, attended at least four international conferences on GLOBE's behalf, including a trip to Tokyo, Japan, Seoul and South Korea costing more than £7,000.

Another trip to China cost more than £8,000. Mr Gardiner's daughter is also a member of GLOBE's full time staff.

It also paid nearly £3,000 to fly Gregory Barker, now Coalition climate change minister, to Washington DC.

Peers Lord Hunt, former head of the Met Office, and Lord Jay, the former head of the Diplomatic Service, both declared club class travel to summits paid for by the organisation.

Lord Hunt, father of Tristan Hunt, the historian, television presenter and Labour MP, also lists Mr Matthews, GLOBE's general secretary, as a member of his House of Lords staff.

Mr Matthews was once Barry Gardiner's researcher in the House of Commons. His chief adviser, Gaun Kik, is listed as being on the House of Lords staff of Lord Jay.

Lord Deben declares his work for GLOBE as a "non-financial interest" to the House of Lords. He is also yet to declare any foreign travel funded by the organisation, although GLOBE confirmed last night that it had contributed to his travel and accommodation costs in the role.

Lord Deben also runs an environmental consultancy company, Sandford International, which declared a turnover of almost £2 million in its last accounts. He is also chairman of Forewind, which has won the right to build a controversial offshore wind farm in the North Sea off the Yorkshire coast.

Among GLOBE's principle backers are a charity set up by the Swedish multi-millionaire Niklas Zennström, founder of the internet phone service Skype, and British-born wealth fund manager Jeremy Grantham, whose personal assets include Dick Cheney and John Kerry.

Mr Grantham heads the Grantham Institute at the LSE, which works alongside GLOBE.

He believes "weather instability" is the world's biggest "investment problem" and his \$107 billion fund pushes alternative assets including a massive portfolio of forestry.

The fund was believed to be preparing to invest in the abandoned Government sell off British forests.

Thursday 03 May 2011

The Telegraph

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Climate Change

Lobbyists who cleared 'Climategate' academics funded by taxpayers and the BBC

A shadowy lobby group which pushes the case that global warming is a real threat is being funded by the taxpayer and assisted by the BBC.

By Adam Lewis, Investigations Editor 9:02PM BST 23 Apr 2011

43 Comments

The little-known not-for-profit company works behind the scenes at international conferences to further its aims.

One of its key supporters headed the official investigation into the so-called "Climategate emails", producing a report which cleared experts of deliberate attempts to skew scientific results to confirm that global warming was a real threat.

Another scientific expert linked to the group came forward to praise a second international investigation into the Climategate affair which also exonerated researchers.

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The fund was believed to be preparing to invest in the abandoned Government sell off British forests.

GLOBE International, registered as a not-for-profit firm under the name The Global Legislators Organisation Ltd, makes minimal disclosures about its finances to Companies House. Last year it declared a £500,000 loss, but still managed to fly a number of key supporters to summits and international conferences.

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- **2011 Rothschild's Moringa. The first agroforestry blended finance fund [105](#).**
Trial balloon relating to agroforestry - *by pure coincidence* - happens to be owned by the Rothschild family itself.



Blended Finance

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- **2015 'The fiddling with temperature data is the biggest science scandal ever' [106](#).**
What little credibility remained given 'Climategate' was taken outside and shot at repeated reveals of yet more systemic fraud.

THE NEWS WANTED BY THE YEAR 2014

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The fiddling with temperature data is the biggest science scandal ever

New data shows that the "vanishing" of polar ice is not the result of runaway global warming

By Christopher Booker
07 February 2015 - 10:56pm

When past generations look back on the global-warming scare of the past 30 years, nothing will shock them more than the extent to which the official temperature records - on which the entire panic ultimately rested - were systematically "adjusted" to show the Earth as having warmed much more than the actual data justified.

Two weeks ago, under the headline "How we are being tricked by flawed data on global warming", I wrote about Paul Homewood, who, on his Notafotopolepeopleknowthat blog, had checked the published temperature graphs for three weather stations in Paraguay against the temperatures that had originally been recorded. In each instance, the actual trend of 60 years of data had been dramatically reversed, so that a cooling trend was changed to one that showed a marked warming.

This was only the latest of many examples of a practice long recognised by expert observers around the world - one that raises an ever larger question mark over the entire official surface-temperature record.

Which: Climate-change explained in 60 second animation

Following my last article, Homewood checked a swathe of other South American weather stations around the original three. In each case he found the same suspicious one-way "adjustments". First these were made by the US government's Global Historical Climate Network (GHCN). They were then amplified by two of the main official surface records, the Goddard Institute for Space Studies (Giss) and the National Climate Data Center (NCDC), which use the warming trends to estimate temperatures across the vast regions of the Earth where no measurements are taken. Yet these are the very records on which scientists and politicians rely for their belief in "global warming".

Homewood has now turned his attention to the weather stations across much of the Arctic, between Canada (51 degrees W) and the heart of Siberia (87 degrees E). Again, in nearly every case, the same one-way adjustments have been made, to show warming up to 1 degree C or more higher than was indicated by the data that was actually recorded. This has surprised no one more than Traust Jonsson, who was long in charge of climate research for the Iceland met office (and with whom Homewood has been in touch). Jonsson was amazed to see how the new version completely "disappears" Iceland's "sea ice years" around 1970, when a period of extreme cooling almost devastated his country's economy.

One of the first examples of these "adjustments" was exposed in 2007 by the statistician Steve McIntyre, when he discovered a paper published in 1987 by James Hansen, the scientist (later turned fictional climate activist) who for many years ran Giss. Hansen's original graph showed temperatures in the Arctic as having been much higher around 1940 than at any time since. But as Homewood reveals in his blog post, "Temperature adjustments transform Arctic history", Giss has turned this upside down. Arctic temperatures from that time have been lowered so much that they are now dwarfed by those of the past 20 years.

Homewood's interest in the Arctic is partly because the "vanishing" of its polar ice (and the polar bears) has become such a poster-child for those trying to persuade us that we are threatened by runaway warming. But he chose that particular stretch of the Arctic because it is where ice is affected by warmer water brought in by cyclical shifts in a major Atlantic current - this last peaked at just the time 75 years ago when Arctic ice retreated even further than it has done recently. The ice-melt is not caused by rising global temperatures at all.

Of much more serious significance, however, is the way this wholesale manipulation of the official temperature record - for reasons GHCN and Giss have never plausibly explained - has become the real elephant in the room of the greatest and most costly scare the world has known. This really does begin to look like one of the greatest scientific scandals of all time.

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Climategate, the sequel: How we are STILL being tricked with flawed data on global warming

Something very odd has been going on with the temperature data relied on by the world's scientists, writes Christopher Booker

By Christopher Booker
08 March 2015 - 10:46pm

The Earth's lowest temperatures are to be found 3 years out of all those recorded since the end of the last ice age.

Although it has been emerging for seven years or more, one of the most extraordinary scandals of our time has never hit the headlines. Yet another little example of it lately caught my eye when, in the wake of those vexed claims that 2014 was "the hottest year on record", I saw the headline on a climate blog: "Masterpiece: Temperature with temperatures in South America". The evidence on Notafotopolepeopleknowthat, uncovered by Paul Homewood, was indeed striking.

Puzzled by those "2014 hottest ever" claims, which were led by the most quoted of all the few official global temperature records - NASA's Goddard Institute for Space Studies Giss - Homewood examined a place in the world where Giss was showing temperatures to have risen faster than almost anywhere else: a large chunk of South America stretching from Brazil to Paraguay.

Noting that weather stations there were thin on the ground, he decided to focus on three rural stations covering a large area of Paraguay. Giss showed it as having recorded, between 1950 and 2014, a particularly steep temperature rise of more than 1.5C: twice the accepted global increase for the whole of the 20th century.

But when Homewood was then able to check Giss's figures against the original data from which they were derived, he found that they had been altered. Far from the new graph showing any rise, it showed temperatures in fact having declined over those 60 years by a full degree. When he did the same for the other two stations, he found the same. In each case, the original data showed not a rise but a decline.

Homewood had in fact uncovered yet another example of the thousands of pieces of evidence coming to light in recent years that show that something very odd has been going on with the temperature data relied on by the world's scientists, and in particular by the UN's Intergovernmental Panel on Climate Change (IPCC), which has driven the greatest and most costly scare in history: the belief that the world is in the grip of an unprecedented warming.

How have we come to be told that global temperatures have suddenly taken a great leap upwards to their highest level in 12,000 years? In fact, it has been no greater than their upward lunge between 1860 and 1880, and 1890 and 1910, as part of that gradual natural warming since the world emerged from its centuries-long "Little Ice Age" around 2000 years ago.

This belief has rested entirely on five official data records. Three of these are based on measurements taken on the Earth's surface, versions of which are then compiled by Giss, by the US National Oceanic and Atmospheric Administration (NOAA) and by the University of East Anglia's Climatic Research Unit working with the Hadley Centre for Climate Prediction, part of the UK Met Office. The other two records are derived from measurements made by satellites, and then compiled by Remote Sensing Systems (RSS) in California and the University of Alabama, Huntsville (UAH).

The adjusted graph from the Goddard Institute for Space Studies

GISS Surface Temperature Analysis
Station Data: Puerto Casado (22.3 S, 57.9 W)

In recent years, these two very different ways of measuring global temperature have increasingly been showing quite different results. The surface-based record has shown a temperature trend rising up to 2014 as "the hottest years since records began". RSS and UAH have, meanwhile, for 38 years been recording no rise in the trend, with 2014 ranking as low as only the sixth warmest since 1957.

One surprise is that the three surface records, all run by passionate believers in man-made warming, in fact derive most of their last surface data from a single source. This is the Global Historical Climate Network (GHCN), managed by the US National Climate Data Center under NOAA, which in turn comes under the US Department of Commerce.

But two aspects of this system for measuring surface temperatures have long been worrying a growing array of statisticians, meteorologists and report science bloggers. One is that the supposedly worldwide network of stations from which GHCN draws its data is flawed. Up to 80 per cent or more of the Earth's surface is not reliably covered at all. Furthermore, around 1990, the number of stations more than halved, from 22,000 to less than 6,000 - and most of those remaining are concentrated in urban areas or places where studies have shown that, thanks to the "urban heat island effect", readings can be up to 2 degrees higher than in those rural areas where thousands of stations were lost.

Bonus: the raw data in graph form

Station Data: Puerto Casado (22.3 S, 57.9 W)

To fill in the huge gaps, those compiling the records have resorted to computerised "infilling", whereby the higher temperatures recorded by the remaining stations are projected out to vast surrounding areas (this allows single stations to give a reading covering 14 million square miles). This alone contributed to the sharp temperature rise shown in the years after 1990.

But still more worrying has been the evidence that even this data has then been subjected to continual "adjustments", invariably in only one direction. Earlier temperatures are adjusted downwards, more recent temperatures upwards, thus giving the impression that they have risen much more sharply than was shown by the original data.

An early glaring instance of this was spotted by Steve McIntyre, the statistician who exposed the computer trickery behind that famous "hockey stick" graph beloved by the IPCC, which purports to show that, contrary to previous evidence, 1998 had been the hottest year for 1,000 years. It was McIntyre who, in 2007, uncovered the wholesale retrospective adjustments made to US surface records between 1920 and 1950 compiled by Giss when run by the conservative climate activist James Hansen.

These revealed an overall cooling trend into an 80-year upward trend. Even Hansen had previously accepted that the "dust bowl" 1930s was the hottest US decade of the entire 20th century.

Assiduous researchers have since unearthed countless similar examples across the world, from the US and Russia to Australia and New Zealand. In Australia, an 80-year cooling of 1 degree per century was turned into a warming trend of 2.3 degrees. In New Zealand, there was a major academic row when "unadjusted" data showing no frost between 1830 and 1899 was shown to have been "adjusted" to give a warming trend of 0.9 degrees per century. This falsified new version was naturally cited in an IPCC report (see "New Zealand NWA temperature train wreck" on the Watts Up With That science blog, WUWT, which has played a leading role in exposing such fiddling of the figures).

By far the most comprehensive account of this wholesale corruption of proper science is a paper written for the Science and Public Policy Institute, "Surface Temperature Records: Policy-Driven Deception", by two veteran US meteorologists, Joseph D'Ales and WUWT's Anthony Watts (and warmists are tempted to comment below this article online, it would be welcome if they could address their criticisms to the evidence, rather than just resorting to personal attacks on the scientists who, after actually examining the evidence, have come to a view different from their own).

One of the more provocative points arising from the debate over those claims that 2014 was "the hottest year ever" came from the Canadian academic Dr Timothy Ball when, in a recent post on WUWT, he used the evidence of ice-core data to argue that the Earth's recent temperature rash in the lowest 3 per cent of all those recorded since the end of the last ice age, 10,000 years ago.

In reality, the implications of such distortions of the data go much further than just representing one of the most bizarre aberrations in the history of science. The fact that our politicians have fallen for all this sissy chicanery has given Britain the most suicidally crazy energy policy (useless windmills and all of any country in the world, but at least, if they're hoping to see that "universal climate treaty" signed in Paris next December, we can be pretty sure that it is no more going to happen than that 2014 was the hottest year in history).

- **2015 The Paris Agreement [107](#).**
A further step towards codification of synthetic, quack science planetary ethics

and blended finance alleyway robbery of the western taxpayer.



A UNFCCC/CBD synthesis.

OCTOBER 9, 2024

[Read full story →](#)

2015 The Sustainable Development Goals [108](#).

Our journey to the Omega Point officially begins, as version 1.0 of our 'global purpose' is published, chock full of Aesopian language.

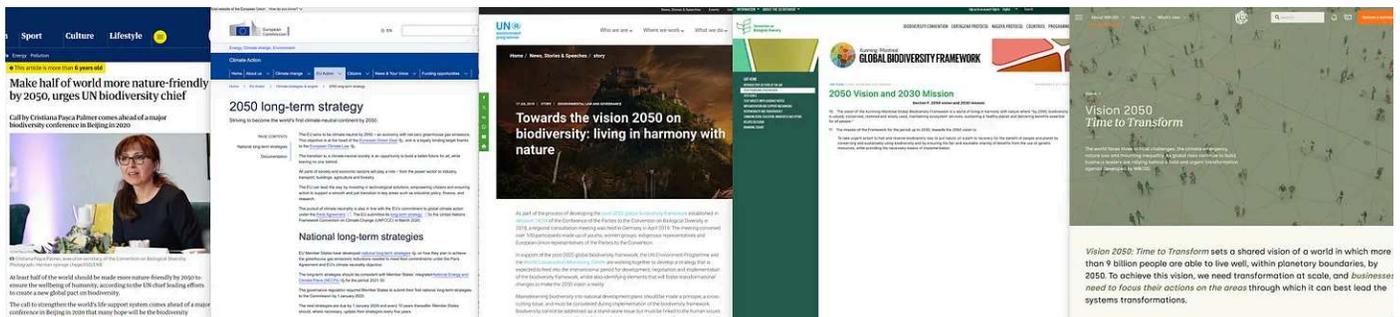
The implementation of these 17 'goals' will progressively be implemented as we close in on 2030, at which stage version 2.0 can be expected - which reasonably can be projected [109](#) to [110](#) take [111](#) us [112](#) to [113](#) 2050 [114](#).



The Sustainable Development Goals

ESC • NOVEMBER 12, 2024

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- **2016 Carbon Dioxide Fertilization Greening Earth, Study Finds [115](#).**

Alarming, NASA prove themselves to be on the page of crazy conspiracy theorists by posting an article, stating the obvious.

The IPCC and UNFCCC naturally do as would be reasonably expected - ignore said stated obviousness.

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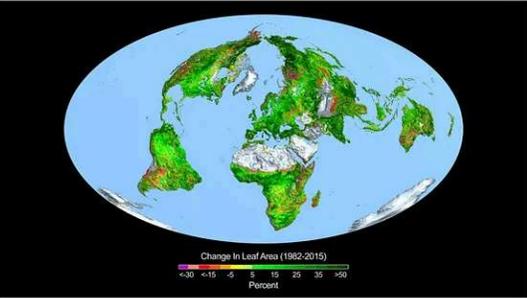
Earth

Apr 26, 2016

Carbon Dioxide Fertilization Greening Earth, Study Finds

From a quarter to half of Earth's vegetated lands has shown significant greening over the last 35 years largely due to rising levels of atmospheric carbon dioxide, according to a new study published in the journal *Nature Climate Change* on April 25.

An international team of 32 authors from 24 institutions in eight countries led the effort, which involved using satellite data from NASA's Moderate Resolution Imaging Spectrometer and the National Oceanic and Atmospheric Administration's Advanced Very High Resolution Radiometer instruments to help determine the leaf area index, or amount of leaf cover, over the planet's vegetated regions. The greening represents an increase in leaves on plants and trees equivalent in area to two times the continental United States.



Change in Leaf Area (1982-2015)
Percent
-30 -15 0 15 30 45

This image shows the change in leaf area across the globe from 1982-2015.
Credits: Boston University/R. Myneni

Green leaves use energy from sunlight through photosynthesis to chemically combine carbon dioxide drawn in from the air with water and nutrients tapped from the ground to produce sugars, which are the main source of food, fiber and fuel for life on Earth. Studies have shown that increased concentrations of carbon dioxide increase photosynthesis, spurring plant growth.

However, carbon dioxide fertilization isn't the only cause of increased plant growth—nitrogen, land cover change and climate change by way of global temperature, precipitation and sunlight changes all contribute to the greening effect. To determine the extent of carbon dioxide's contribution, researchers ran the data for carbon dioxide and each of the other variables in isolation through several computer models that mimic the plant growth observed in the satellite data.

Results showed that carbon dioxide fertilization explains 70 percent of the greening effect, said co-author Ranga Myneni, a professor in the Department of Earth and Environment at Boston University. "The second most important driver is nitrogen, at 9 percent. So we see what an outsized role CO₂ plays in this process."



From a quarter to half of Earth's vegetated lands has shown significant greening over the last 35 years largely due to rising levels of atmospheric carbon dioxide.
This video is public domain and can be downloaded from the Scientific Visualization Studio.

About 85 percent of Earth's ice-free lands is covered by vegetation. The area covered by all the green leaves on Earth is equal to, on average, 32 percent of Earth's total surface area - oceans, lands and permanent ice sheets combined. The extent of the greening over the past 35 years "has the ability to fundamentally change the cycling of water and carbon in the climate system," said lead author Zaichun Zhu, a researcher from Peking University, China, who did the first half of this study with Myneni as a visiting scholar at Boston University.

Every year, about half of the 10 billion tons of carbon emitted into the atmosphere from human activities remains temporarily stored, in about equal parts, in the oceans and plants. "While our study did not address the connection between greening and carbon storage in plants, other studies have reported an increasing carbon sink on land since the 1980s, which is entirely consistent with the idea of a greening Earth," said co-author Shilong Piao of the College of Urban and Environmental Sciences at Peking University.

While rising carbon dioxide concentrations in the air can be beneficial for plants, it is also the chief culprit of climate change. The gas, which traps heat in Earth's atmosphere, has been increasing since the industrial age due to the burning of oil, gas, coal and wood for energy and is continuing to reach concentrations not seen in at least 500,000 years. The impacts of climate change include global warming, rising sea levels, melting glaciers and sea ice as well as more severe weather events.

The beneficial impacts of carbon dioxide on plants may also be limited, said co-author Dr. Philippe Ciais, associate director of the Laboratory of Climate and Environmental Sciences, Gif-sur-Yvette, France. "Studies have shown that plants acclimatize, or adjust, to rising carbon dioxide concentration and the fertilization effect diminishes over time."

"While the detection of greening is based on data, the attribution to various drivers is based on models," said co-author Josep Canadell of the Oceans and Atmosphere Division in the Commonwealth Scientific and Industrial Research Organisation in Canberra, Australia. Canadell added that while the models represent the best possible simulation of Earth system components, they are continually being improved.

- 2018 World Scientists' Warning to Humanity: A Second Notice [116](#).

Undeterred by their complete failure to predict the future in 1992, not only did these crooks repeat the same message, but they in fact now claim the situation has deteriorated. And the Union of Concerned Scientists, again, were involved in this shameless refusal to own up.

More than 15,000 *alleged* 'scientists' signed this absurdity, including architects, social scientists, veterinarians, museum curators, teaching assistants, zoologists, PhD students, even physicians and quite possibly parking attendants and student bus drivers too, making this 15,000 number all the more legit.

Thousands of scientists issue bleak 'second notice' to humanity

By Sarah Kaplan November 29 at 3:04 PM



Planet Earth (NASA)

In late 1992, 1,700 scientists from around the world issued a dire "warning to humanity." They said humans had pushed Earth's ecosystems to their breaking point and were well on the way to ruining the planet. The letter listed environmental impacts like they were biblical plagues — stratospheric ozone depletion, air and water pollution, the collapse of fisheries and loss of soil productivity, deforestation, species loss and catastrophic global climate change caused by the burning of fossil fuels.

"If not checked," wrote the scientists, led by particle physicist and Union of Concerned Scientists co-founder Henry Kendall, "many of our current practices put at serious risk the future that we wish for human society and the plant and animal kingdoms, and may so alter the living world that it will be unable to sustain life in the manner that we know."

But things were only going to get worse.

To mark the letter's 25th anniversary, researchers have issued a bracing follow-up. In a communique published Monday in the journal *BioScience*, more than 15,000 scientists from 184 countries assess the world's latest responses to various environmental threats. Once again, they find us sorry wanting.

"Humanity has failed to make sufficient progress in generally solving these foreseen environmental challenges, and alarmingly, most of them are getting far worse," they write.

This letter, spearheaded by Oregon State University ecologist William Ripple, serves as a "second notice," the authors say: "Soon it will be too late to shift course away from our falling trajectory."

Global climate change sits atop the new letter's list of planetary threats. Global average temperatures have risen by more than half a degree Celsius since 1992, and annual carbon dioxide emissions have increased by 62 percent.

But it's far from the only problem people face. Access to fresh water has declined, as has the amount of forestland and the number of wild-caught fish (a marker of the health of global fisheries). The number of ocean dead zones has increased. The human population grew by a whopping 2 billion, while the populations of all other mammals, reptiles, amphibians and fish have declined by nearly 30 percent.

The lone bright spot exists way up in the stratosphere, where the hole in the planet's protective ozone layer has shrunk to its smallest size since 1988. Scientists credit that progress to the phasing out of chlorofluorocarbons — chemicals once used in refrigerators, air conditioners and aerosol cans that trigger reactions in the atmosphere to break down ozone.

"The rapid global decline in ozone depleting substances shows that we can make positive change when we act decisively," the letter says.

The authors offer 13 suggestions for reining in our impact on the planet, including establishing nature reserves, reducing food waste, developing green technologies and establishing economic incentives to shift patterns of consumption.

To this end, Ripple and his colleagues have formed a new organization, the Alliance of World Scientists, aimed at providing a science-based perspective on issues affecting the well-being of people and the planet.

"Scientists are in the business of analyzing data and looking at the long-term consequences," Ripple said in a release. "Those who signed this second warning aren't just raising a false alarm. They are acknowledging the obvious signs that we are heading down an unsustainable path. We are hoping that our paper will ignite a widespread public debate about the global environment and climate."

Read more:

The Earth's ozone hole is shrinking and is the smallest it has been since 1988

Fossil fuel emissions will reach an all-time high in 2017, scientists say — dashing hopes of progress

Trump's top environmental pick says she has 'many questions' about climate change

Yet another

- 2020 Greening of the Earth Mitigates Surface Warming [117](#).
NASA confirms the validity of yet another crazy conspiracy theory, but promptly move to address this error - by taking down the webpage [118](#).

The screenshot shows a NASA website page with a navigation bar at the top. The main article is titled "Greening of the Earth Mitigates Surface Warming" and is dated "Nov 24, 2020". The article text states: "A new study reports that increased vegetation growth during the recent decades, known as the 'Greening Earth', has a strong cooling effect on the land due to increased efficiency of heat and water vapor transfer to the atmosphere." It further explains that a study published in the journal *Science Advances* found that biophysical impacts of Earth greening largely controlled by aerodynamic resistance reports that the entire land surface would have been much warmer without the cooling effect of increased green cover during the recent decades. The study used high-quality satellite data from NASA's MODIS sensors and NCAR's state-of-the-art numerical earth system model. The greening of the lands during the first fifteen years in the 21st century represented an additional heat dissipation (2.97x10²¹ J) from the surface equivalent to five times the total energy produced and used by humans in 2015 (5.71x10²⁰ J). This greening-induced cooling effect was twenty-five times stronger than the warming effect caused by tropical deforestation. The article concludes: "In the fight against climate change, plants are the lonely-only defenders. Stopping deforestation and ecologically sensible large-scale tree-planting could be one simple, but not sufficient, defense against climate change," said the lead author Dr. Chi Chen a former Ph.D. student at Boston University, now a postdoc researcher at DOE's Lawrence Berkeley National Lab.

Related text on the right side of the page includes: "Quantifying the vegetation effect on land surface temperature (LST) is challenging. The observed changes in LST are the results of a series of compounding biophysical processes." and "Disentangling the signal from different biophysical processes is essential to solving this question." It also mentions "Vegetation transpires water to cool itself from solar heating." and "Increased amount of leaves adds roughness which breaks the stillness of the air. More water vapor is thus transpired which leads to a cooler land surface," said Prof. Pierre Gentine of Earth and Environmental Engineering at Columbia University.

At the bottom of the page, there is a footer with the NASA logo and text: "National Aeronautics and Space Administration Page Last Updated: Dec 16, 2020 NASA Official: Brian Dunbar" and a list of links: "No Fair Act, FOIA, Privacy, Office of Inspector General, Office of Special Counsel, Agency Financial Reports, Contact NASA".

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