The sixty years crisis

A short history of a huge problem

Part 5 The facts
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When you have gone through this history
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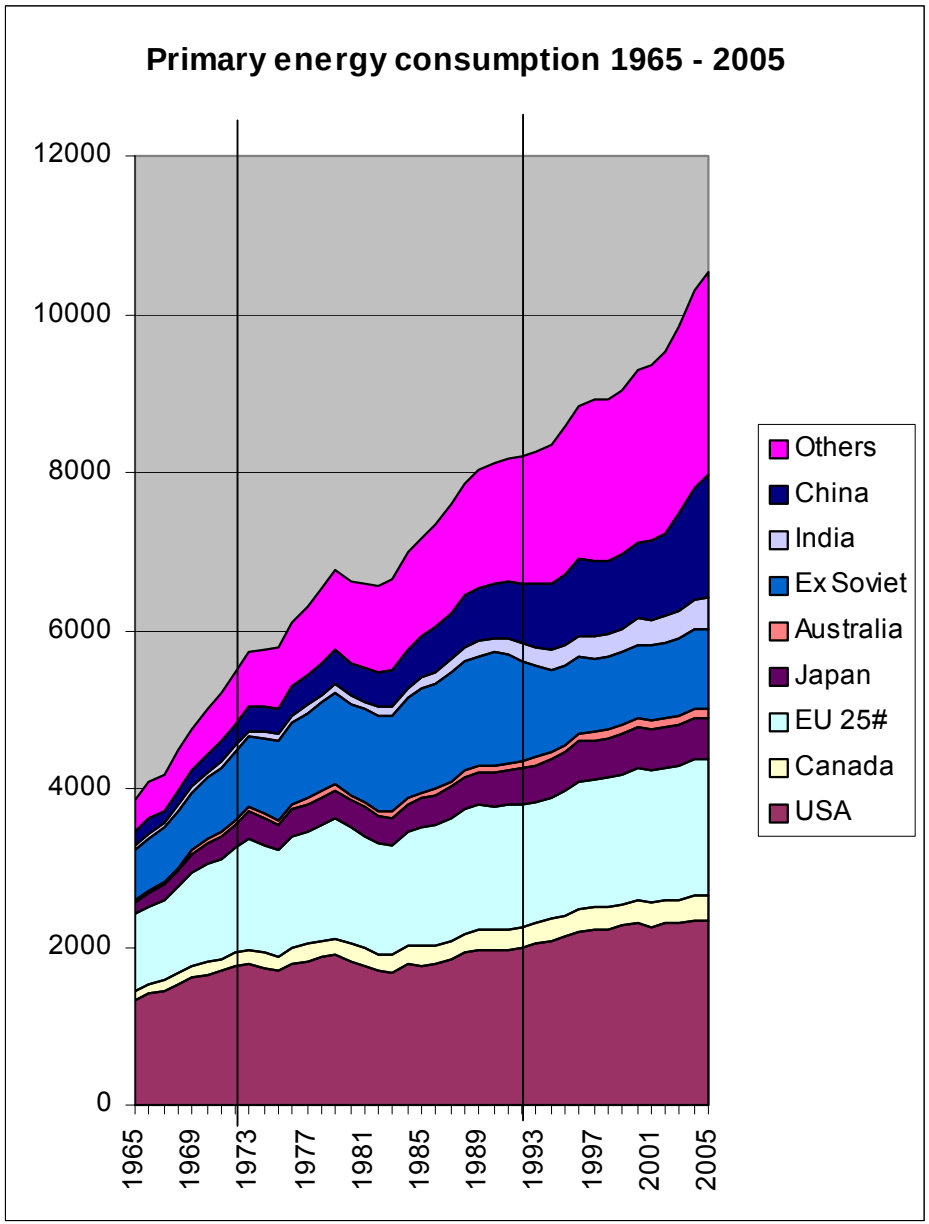
Content

- The crisis!
- The surprise?
- Gaia – our living planet
- Our common history – and future
- The facts
- The real terrorists
- The American dream
- My Home Countries
- The globalization nightmare
- So where do we go from here?
- My own journey

The facts



The environmental crisis is not new.
The green house effect is not new.
The Swedish Scientist Svante Arrhenius formulated this 1903.
All the facts we had at the UN environmental conference in Stockholm 1972 were even more “factual” 1992 when a new UN environmental conference was held in Rio de Janeiro, Brazil.

The fossil fuel expansion continued with increased CO_2 emission. But now we also had the Ozone hole. Scientists discovered other alarming “trends”. Such as that animals stored more and more of the chemicals we used. And those chemicals grew by the number in an enormous speed.

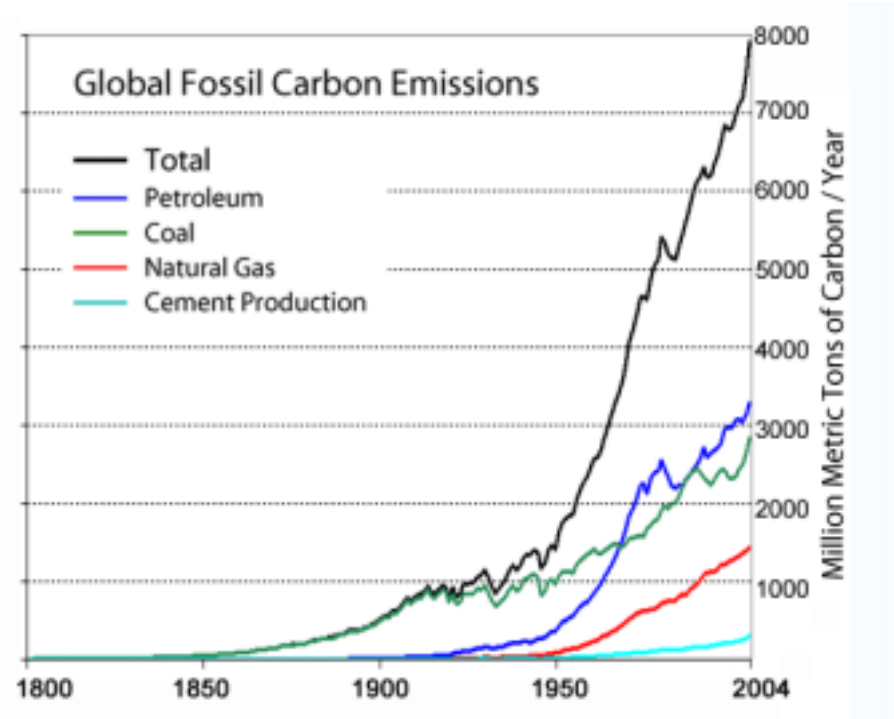
But we seemed to have forgotten DDT and the Silent Spring. Now we were focused on economic growth. And this accelerated another global trend – Urbanization!

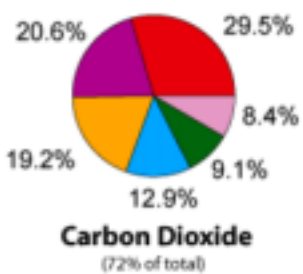
Living in a greenhouse

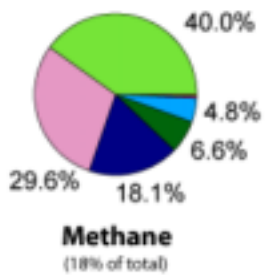
The fact is we need the green house effect to survive. This is what gives us the relatively favorable conditions for life. This greenhouse has been created during billions and millions of years in a delicate balance we now have disturbed.

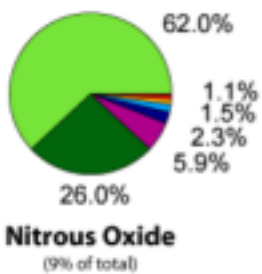
From Wikipedia, the free encyclopedia:

Greenhouse gases are components of the atmosphere that contribute to the greenhouse effect. Without the greenhouse effect the Earth would be uninhabitable;[1] in its absence, the mean temperature of the earth would be about −19 °C (−2 °F, 254 K) rather than the present mean temperature of about 15 °C (59 °F, 288 K)[2]. Greenhouse gases include, in order of relative abundance: water vapour, carbon dioxide, methane, nitrous oxide, ozone and CFCs. Greenhouse gases come from natural sources and human activity; present CO2 levels are 380 ppmv, approximately 100 ppmv higher than they were in pre-industrial times.





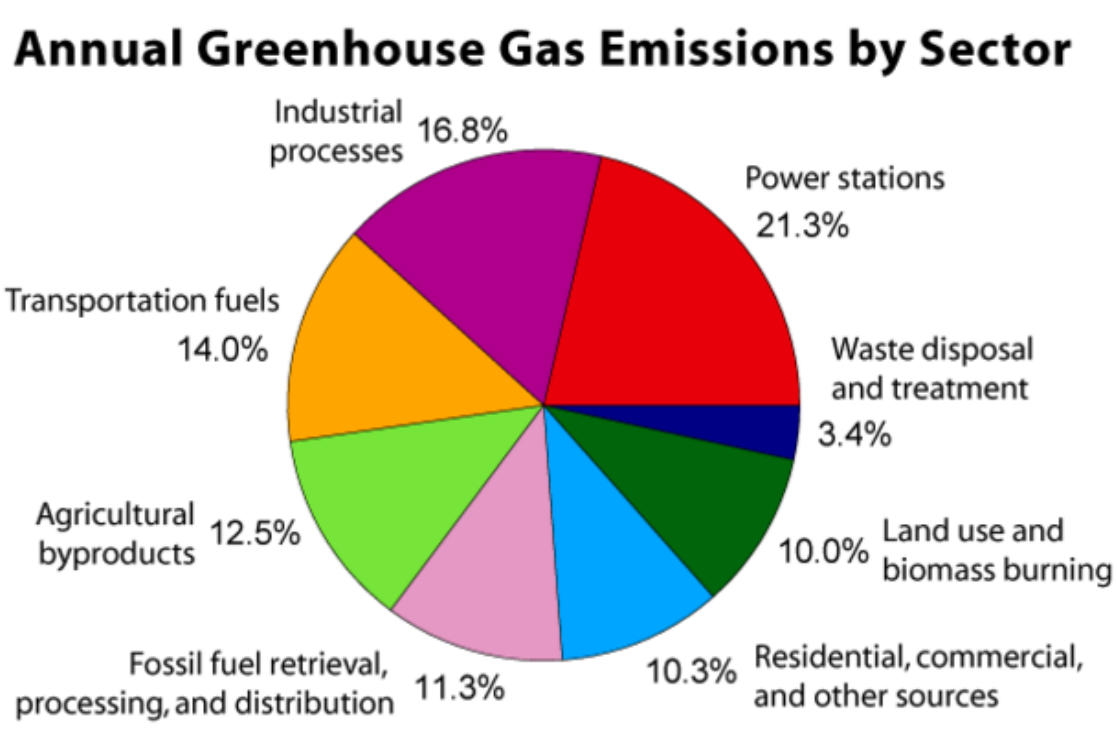




The big disturbance

And it is not a small disturbance. We have increased the CO2 level that has been stable on a level of 280 ppm to 381 ppm. And the increase is increasing! Now UN predict an increase to a level of 550 ppm by 2050. And the methane concentration has been growing even faster. With 150% until today. And the reason is NOT one thing. It is the result of basically all of our activities that now is part of our western life style in the rich countries now spreading with globalization. It is spreading with every shopping mall and free way we build and with every hamburger and T-bone steak we eat.

Our modern life style produces all sort of garbage. The burning of coal, oil and gas. For our industries, cars, airplanes, electricity but also for our farming and food production, especially meat. Cement for our construction is adding to this. Methane from our cattle so we can eat more meat. Waste disposal and land fillings. Cutting and burning down our forests. The positive feedback effect when Nature no longer can absorb our pollution.....



The recomendation 1972

In the book “Limit of growth” 1972 the following conclusion was made by a group of scientists. (Who exactly predicted the CO_2 concentration for global warming)
“There is naturally not one single optimum number for the world population. There is however a number of balance conditions between population, social and material standard, personal freedom and other conditions that adds up to the quality of life.... We realize that balance on a global scale can only be achieved if the conditions in the developing countries is significantly improved and we state that this improvement can only be realized with a global strategy....

The world is not big enough with enough resources to support such an egocentric system with it’s many conflicts among it’s inhabitants as we have today....The closer we get to the material limits of earth the more difficult it will be to solve these problems.....We cannot assume that just technological solutions will help us out of this evil circle. The strategy to solve both the questions of development and environment has to be treated as one... It is our common conviction that to radically and fast resolve the very unbalanced and degenerating situation of today is the most important task for humanity...Totally new ways to approach this problem is required to bring our world back in balance instead of growth. Such a reorganization will require en enormous effort of insight, creativeness, political and moral courage.”

But this computer simulation and report was dismissed until a new was issued 2007!

The status of the world after 1972

During and after the UN environmental conference in Stockholm 1972 I was together with other young students part of an environmental activist group on the left side. We arranged seminars and exhibitions. We had workshops and presented our findings in books and magazines. For us the conclusions were simple and alarming -1972 :

- All industrial activities require raw material and energy, and...
- .....this will always affect the environment to some degree, but....
- .....especially the fossil fuel such as gas and oil is a big concern.
- Acid rain due to SO^2, harmful particles, oil spill and tanker accidents, plus
- The use of fossil fuel is releasing the carbon stored for millions of years...
- This increase the CO_2 level in the atmosphere and create a green houses effect...
- Increased warming will lead to unpredictable disturbances in the environment
- The present nuclear fission energy is NOT an alternatives, because of..
- ....long term nuclear waste and security risks with danger for nuclear accidents
- The main problem is the SIZE and the SPEED of the increased consumption
- The present model in USA & Europe require continuous growth of consumption.
- So USA & Europe is consuming 100 times more resources than the rest of the world
- This is absolutely not a realistic model for the rest of the world
- There is and increasing dependency of imported oil for Europe and now also USA
- This will affect the trade balance, the USD rate and result in more US interventions

And this was exactly what happened!

The status of USA after 1972

USA is often criticized including by me. The reason is simple. USA has since the turn of the 20th century driven the development of our world for good and for bad. USA has been involved in basically all major wars and conflicts – also for god and for bad. USA has the highest consumption and the highest pollution rate of all countries. What is happening in USA and how USA is acting in the rest of the world is therefore the absolute most important also for our future development.

I visited USA the first time 1969 and I have lived there several years of my life. When I collected data for my writings 1972 this included some official documents. One was a US government report on national fuel and energy from 1962. It points out that the consumption of energy will double between 1960 and 1980. They were absolutely right. It also states that USA has enough own fossil fuel for 800 years and that USA was self sufficient. This turned out not to be true for oil. A lot is written about security matters including a scenario of a nuclear war. But in the 499 pages there is not one word mentioned about the environment. Still after the oil crisis in the beginning of the 1980s, the smog and acid rain, the Ozone whole something should change....

Many of the early warnings on the environment came form American scientists. Many of today's alarming reports are based on American studies. So what is really alarming is that neither the American administration or public is responding and will "not question the American way of life". Instead this global crisis is treated as a security issue and a war against terrorism. It is a war but against our planet Gaia and our common future. And it is the American way of life that is terrorizing the world.

And more alarms were published

The Brundtland Commission 1987 presented the “Our common future” report. GAIA – An Atlas of planet management and “Program for a green planet” was published warning for the global warming. James Lovelock who defined GAIA as the living planet published 1988 “The Ages of Gaia” and Healing Gaia 1991 warning for the CO_2 .

Also the UN conference in Rio 1992 triggered several writers to share their concern with the development and increased pollution. Many contributed in “Save the earth”. “State of the world” from the “World watch institute” came 1992. Isaac Asimov and Fredric Pohl wrote “Our angry Earth” and Al Gore – Earth in balance. All warned for CO_2 and global warming but also many other problems and required radical changes in our life style.

Rio is one of the most beautiful cities in the world and I love being there. But it is also one of the most polluted and violent due to the poverty. It is a divided world between the rich and the poor. And the main result of the conference was a bicycle road along Copacabana.

And even more alarms were added

1979 the first “World Climate Conference” organized by WMO (World Metrological Organization) expressed concern that “continued expansion of man’s activities on earth may cause significant extended regional and even global changes of climate”. The Conference appealed to nations of the world “to foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity”.

In 1985 a joint UNEP/WMO/ICSU Conference was convened in Villach (Austria) on the “Assessment of the Role of Carbon Dioxide and of Other Greenhouse Gases in Climate Variations and Associated Impacts”. The conference concluded, that “as a result of the increasing greenhouse gases it is now believed that in the first half of the next century (21st century) a rise of global mean temperature could occur which is greater than in any man’s history.”

At its 40th Session in 1988 the WMO Executive Council decided on the establishment of the Intergovernmental Panel on Climate Change (IPCC) supported by UNEP. (United Nations Environmental Program). The Swede Bert Bohlin who had explained the global warming twenty years earlier became the first chairman. United Nations General Assembly (UNGA) recognized the need for international cooperation and asked IPCC to prepare a a comprehensive review and recommendations for the UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992. Responding to this request, the IPCC adopted its first assessment report on 30 August 1990 in my home town Sundsvall in northern and cold Sweden.

The Sundsvall 1990 assessment report

Sundsvall was the first heavily industrialized and polluted area in Sweden with numerous pulp and paper mills as well as a huge Aluminum plant. Both the air and the sea was polluted. But due to the environmental "awakening" of the 1970s the emissions were radically reduced and both the air and sea recovered. And fossil fuel was abandoned for heating. So Sundsvall was for several reasons a suitable place to meet for IPCC.

Working Group 1 experts concluded that they are certain that emissions from human activities are substantially increasing the atmospheric concentrations of greenhouse gases and that this will enhance the greenhouse effect and result in an additional warming of the Earth's surface. Models available at that time predicted under business as usual a rate of increase of the global mean temperature during the 21st century of 0.3 degree C per decade with an uncertainty range of 0.2 to 0.5. So they believed between 2 -5 degree global warming under the 21th century.

Working group 2 experts stated impacts on agriculture and forestry, natural terrestrial ecosystems, hydrology and water resources, human settlements, oceans and coastal zones and seasonal snow cover, ice and permafrost.

Working group 3 defined mitigation and adaptive response options in the areas of energy and industry; agriculture, forestry and other human activities; and coastal zone management. .The report also addressed emissions scenarios and the implementation of mitigation measures.

So the experts meeting in Sundsvall 1990 knew very well what was going on and what we should do. But they were not 100% sure. So we went on as usual!

The WHO Sundsvall statement 1991

Sundsvall was also the host for the WHO meeting on Supportive Environment for Health with participants from 81 countries. This was a big step since it connected our own health with the health of our common environment. And it described the interdependencies of the physical, social, political and economical development. This was in fact our first "Holistic" call for actions: *"Public concern over threats to the global environment has grown dramatically. This was clearly expressed by the World Commission on Environment and Development in its report Our Common Future, which provided a new understanding of the imperative of sustainable development."*

Third International Conference on Health Promotion: Supportive Environments for Health - the first global conference on health promotion, with participants from 81 countries - calls upon people in all parts of the world to actively engage in making environments more supportive to health. Examining today's health and environmental issues together, the Conference points out that millions of people are living in extreme poverty and deprivation in an increasingly degraded environment that threatens their health, making the goal of Health For All by the Year 2000 extremely hard to achieve. The way forward lies in making the environment - the physical environment, the social and economic environment, and the political environment - supportive to health rather than damaging to it.

The Sundsvall Conference identified many examples and approaches for creating supportive environments that can be used by policy-makers, decision-makers and community activists in the health and environment sectors. The Conference recognized that everyone has a role in creating supportive environments for health.

The Sundsvall conference conclusions

Selected parts of the Sundsvall conference solutions can be seen below. This was seventeen (17) years ago the conclusin was “drastic changes in attitudes” For the full report please go to: www.who.int/hpr/NPH/docs/sundsvall_statement.pdf

People form an integral part of the earth's ecosystem. Their health is fundamentally interlinked with the total environment. All available information indicates that it will not be possible to sustain the quality of life, for human beings and all living species, without drastic changes in attitudes and behaviour at all levels with regard to the management and preservation of the environment.

Concerted action to achieve a sustainable, supportive environment for health is the challenge of our times.

At the international level, large differences in per capita income lead to inequalities not only in access to health but also in the capacity of societies to improve their situation and sustain a decent quality of life for future generations. Migration from rural to urban areas drastically increases the number of people living in slums, with accompanying problems - including lack of clean water and sanitation.

The Sundsvall Conference has again demonstrated that the issues of health, environment and human development cannot be separated. Development must imply improvement in the quality of life and health while preserving the sustainability of the environment. Only worldwide action based on global partnership will ensure the future of our planet.

Yes some progress was made

The World Commission on Environment and Development (WCED) recognized 1987 in the Brundtland report “Our common future” that “the environment, economic and social issues are interlinked”. It recommended that the three be integrated into development decision making. The Montreal Protocol, which became effective in 1989 and had 191 parties at the beginning of 2007, has helped decrease or stabilize atmospheric concentrations of many of the ozone-depleting substances, including chlorofluorocarbons. This has stabilized the Ozone hole which is good.

After the 1992 Rio Earth Summit the United Nations Framework Convention on Climate Change (UNFCCC) managed to get 36 countries to accept emission targets according to the 1997 ”Kyoto Protocol”. It was a very moderate target to reduce with 5%. The problem was that the largest emitting country USA refused to sign. The Intergovernmental Panel on Climate Change (IPCC) continued their work to check if what we experienced was really 100% true. And UNEP published regularly “The *Global Environment Outlook”* that really should have woke us up.

So we did something but far too little and too late! And still we had not grasped the magnitude of the problem and the magnitude of the solution. It is unbelievable!

United Nations Framework Convention on Climate Change (UNFCCC), 1992	1997 Kyoto Protocol	GHG emissions (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6)	36 countries accepted emissions targets	2008–2012	Kyoto Protocol. The individual commitments add up to a total cut in greenhouse gas emissions of at least 5 per cent from 1990 levels from Annex 1 countries in the commitment period 2008–2012.

My own experience

1989 I moved back from Los Angeles California to Sweden and brought my first three year old PC with me. So now I could write even more. In my job I traveled the world again so naturally I burned a lot of CO_2 sitting on airplanes. But the advantage was that I was directly involved and could experience the change now taking place. And what I soon noticed was that it was not only the PC, fast food and Levis Jeans that the world now imported from California. It was the traffic and pollution. Los Angeles reborn everywhere. London, Frankfurt, Paris, Rome, Madrid had always been crowded with small streets. Now they were full.

But the big change was in the" emerging and transition" economies (New words for developing and Ex communist) People moving to the big cities in thousands – every day and night; Sao Paulo, Mexico City, Manila, Bangkok, Seoul, Mumbai, Delhi, Shanghai, Beijing, Moscow....

The rich became even richer in these new mega cities with new cars but the majority was still poor. Small children were begging on the streets in the middle of the intense traffic. Shopping malls and five star hotels were wall to wall with the slum where children lived in paper boxes. Prostitution and drug trafficking went hand in hand with hamburgers and luxury cars.

The free market had taken over. We had liberated the world!

And the CO_2 emissions increased world wide.

My own re-awakening

I have throughout the years invested in a large library of nonfiction and I am a frequent user of the public library and Internet. So I know that there are many "out there" who has similar concerns about the environment as I do. But for some reason the concerns and interest in alternative life styles of the 1970s just vanished during the 80s and 90s. We became focused on fame & money.

So I wanted to write down my thoughts again. I was trying to utilize what I had learned during my years in California. This included both my professional work with the Pacific Coast power industry with sustainable energy such as hydro, wind, solar, thermal and co-generation with fruit trees as fuel.

But it also included my experience from what is left from an astonishing nature as well as what I learned from the history of the Native "Indians" of California.

But even more important was my introduction to "Holistic thinking" and the Gaia theory. That everything is connected. That we need to expand our one sided linear and single issue "male thinking" to integrate a holistic and more "female thinking". To become whole again!

I wrote four different books I did not get published. The reason was probably that they were too complex because I tried to describe the connection between technology, society, economy and the environment. That these activities are all interlinked and that they have to be handled together. Finally I was accepted to participate in a yearly Swedish publication and for several years I had a chance to once again share my worries with a larger audience .

My own conclusions 1996 - 1998

1996 I summarized my thoughts in “Crossroad into the future”. That was still the same facts as before; We in the rich world are using too much resources and that this model cannot be applied for the poor part of the world. This gives increased pollution where the Earth weather system now is influenced and we are getting closer to an ecological disaster. And that it is our very life style with increase consumption causing this. That the big paradox is that we are saying that we want a sustainable future but we are acting in the opposite direction. That continuous economic growth “for ever” not is possible in the way we define this. That “The Market” cannot define our long term future. That WE instead need to find another sustainable model and ways to describe quality of life in tune with Nature. And the act accordingly. NOW!

1998 I wrote “The straight jacket of consumerism” for the 1999 edition of the same book. I repeated the conclusion of John Kenneth Galbraith that today’s consumerism is NOT per say a result of a free market economy. But we live in the “Dictatorship of the Market.” We could have a free market economy with political regulations. The problem is that the totality of this consumerism on a global scale is not free. It is a massive brain washing for more consumption as the main goal. We are every second of the day indoctrinated to buy and consume more although we already have it all. And we do not even notice it.

My own conclusions 1999 - 2000

In the 1999 edition I concluded:

“We have reached the limit for our old world and especially our present way of living....We have two alternatives. One is like a dinosaur continue to consume our world with increasing competition between humans and nature. The other alternative is to find a new direction for our civilization with a sustainable cycle in harmony with our living earth. But this require us first of all to understand the need to change.“

In the Millennium edition of the same publication I summarized the amazing technological development during the 20th century. I concluded my review with:

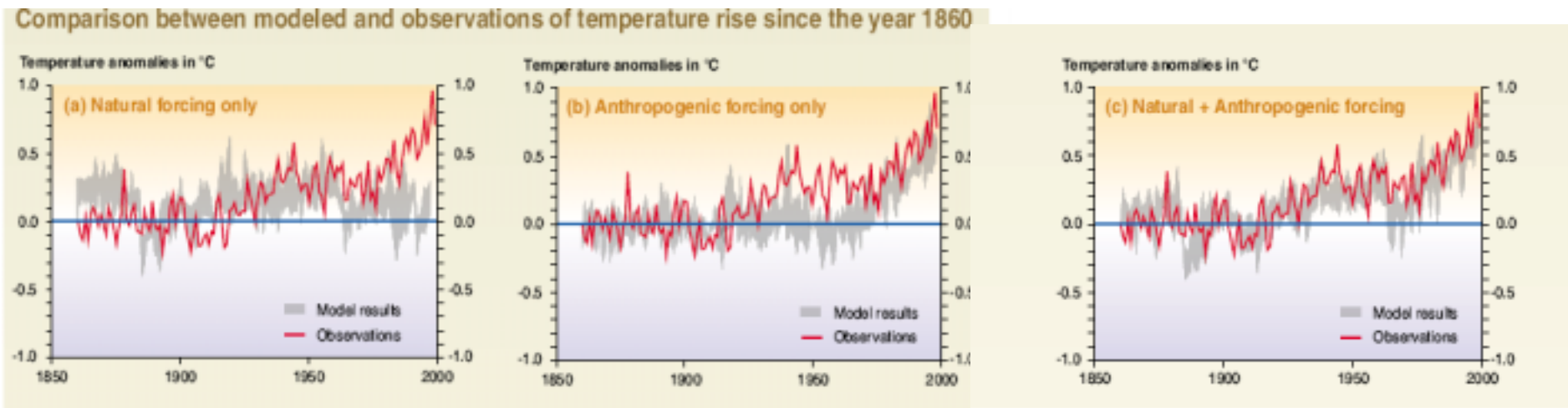
“The challenge for the 21st century is to find a model for sustainable development for both mankind and nature – and it is urgent. Everybody should by now understand that by continuing and uncontrolled consumption growth will end in a catastrophe. The longer we wait the more drastic the change will be. The technological means to create a development in harmony with the ecology already exist. We are only lacking the insight and the will.”

So what was the response?

Nothing! This book has one of largest circulations of non-fiction in Sweden. But no response at all! During four years I wrote bout my concerns. Then this publisher was bought by the one and only BIG publisher of all media that had other priorities. But I was not alone in my frustration. “State of the world” 1999 concluded the same thing – our consumer model is not sustainable.

2001 the Intergovernmental Panel on Climate Change (IPCC) came with their Third Assessment Report. Their computer model verified (like the Club of Rome 1972) that it was human activities with emission of green house gases that created the global warming. But they were still not 100% sure about how to interpret their facts so therefore nothing happened.

Our establishment including media and politicians were focused on only ONE thing. The stock market. Fame and Money! While the CO_2 increased!



IPCC 2001 The Third Assesment Report

Interpretation of the facts 2001

The Earth's climate system has demonstrably changed on both global and regional scales since the pre-industrial era, with some of these changes attributable to human activities.

Human activities have increased the atmospheric concentrations of greenhouse gases and aerosols since the pre-industrial era. The atmospheric concentrations of key anthropogenic greenhouse gases (i.e., carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and tropospheric ozone (O_3)) reached their highest recorded levels in the 1990s, primarily due to the combustion of fossil fuels, agriculture, and land-use changes (see Table SPM-1). The radiative forcing from anthropogenic greenhouse gases is positive with a small uncertainty range; that from the direct aerosol effects is negative and smaller; whereas the negative forcing from the indirect effects of aerosols on clouds might be large but is not well quantified.

An increasing body of observations gives a collective picture of a warming world and other changes in the climate system (see Table SPM-1).

Globally it is very likely that the 1990s was the warmest decade, and 1998 the warmest year, in the instrumental record (1861–2000) (see Box SPM-1). The increase in surface temperature over the 20th century for the Northern Hemisphere is likely to have been greater than that for any other century in the last thousand years (see Table SPM-1). Insufficient data are available prior to the year 1860 in the Southern Hemisphere to compare the recent warming with changes over the last 1,000 years. Temperature changes have not been uniform globally but have varied over regions and different parts of the lower atmosphere.

IPCC 2001 The Third Assesment Report

A long term effect

Gas		Global Warming Potential Time horizon		
		20 years	100 years	500 years
Carbon dioxide	CO_2	1	1	1
Methane	CH_4	62	23	7
Nitrous oxide	N_2O	275	296	156
Chlorofluorocarbons				
CFC-11	CCl_3F	6300	4600	1600
CFC-12	CCl_2F_2	10200	10600	5200

IPCC pointed out that the increase of the concentration of both Carbon dioxide, Methane and Nitrous oxide were significant. And that all had long term effect. Especially CO2 that stayed for thousands of years.

Relevant to both radiative forcing and ozone depletion; all of the following have no natural sources and hence zero amounts pre-industrial

Gas	Current (1998) Amount by volume	Radiative forcing (W/m²)
CFC-11	268 ppt	0.07
CFC-12	533 ppt	0.17
CFC-113	84 ppt	0.03
Carbon tetrachloride	102 ppt	0.01
HCFC-22	69 ppt	0.03

(Source: IPCC radiative forcing report 1994 updated (to 1998) by IPCC TAR table 6.1

Relevant to radiative forcing

Gas	Current (1998) Amount by volume	Increase over pre-industrial (1750)	Percentage increase	Radiative forcing (W/m²)
Carbon dioxide	365 ppm {383 ppm(2007.01)}	87 ppm {105 ppm(2007.01)}	31% {37.77%(2007.01)}	1.46 {~1.532 (2007.01)}
Methane	1,745 ppb	1,045 ppb	150%	0.48
Nitrous oxide	314 ppb	44 ppb	16%	0.15

www.grida.no/climate/ipcc_tar/wg1/248.htm
http://en.wikipedia.org/wiki/Greenhouse_gas#The_.22greenhouse_effect.22'

Interpretation of the facts for the future

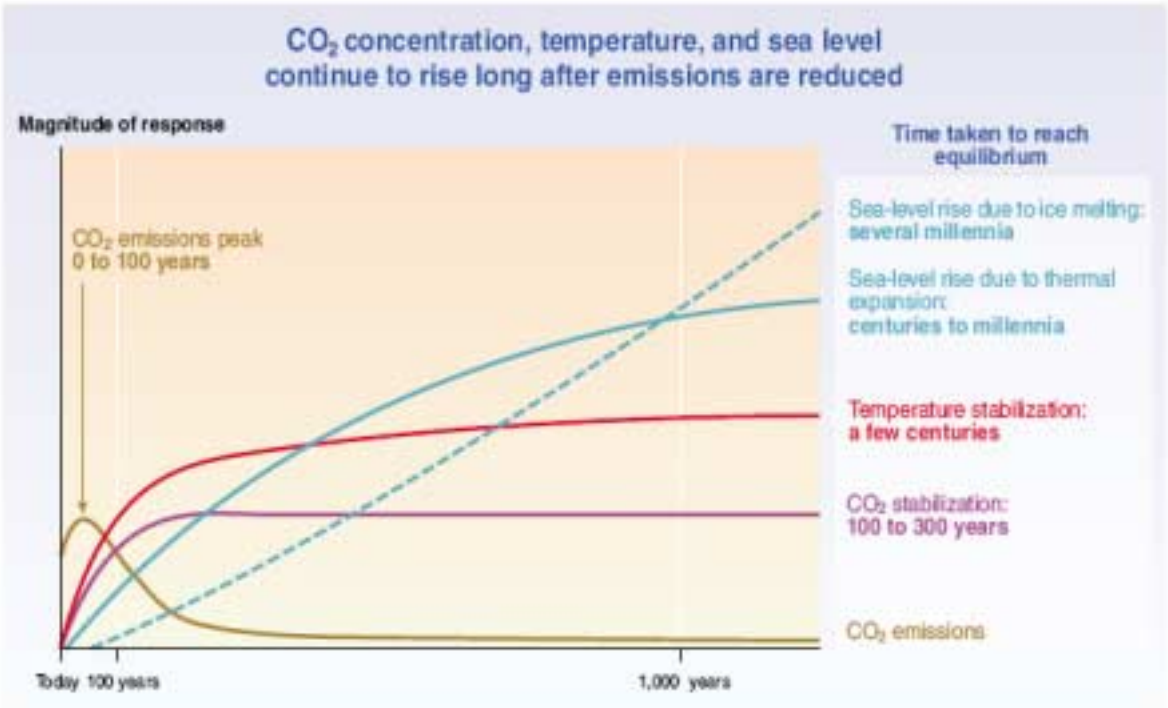


Figure SPM-5: After CO_2 emissions are reduced and atmospheric concentrations stabilize, surface air temperature continues to rise slowly for a century or more. Thermal expansion of the ocean continues long after CO_2 emissions have been reduced, and melting of ice sheets continues to contribute to sea-level rise for many centuries. This figure is a generic illustration for stabilization at any level between 450 and 1,000 ppm, and therefore has no units on the response axis. Responses to stabilization trajectories in this range show broadly similar time courses, but the impacts become progressively larger at higher concentrations of CO_2.

Q5 Figure 5-2

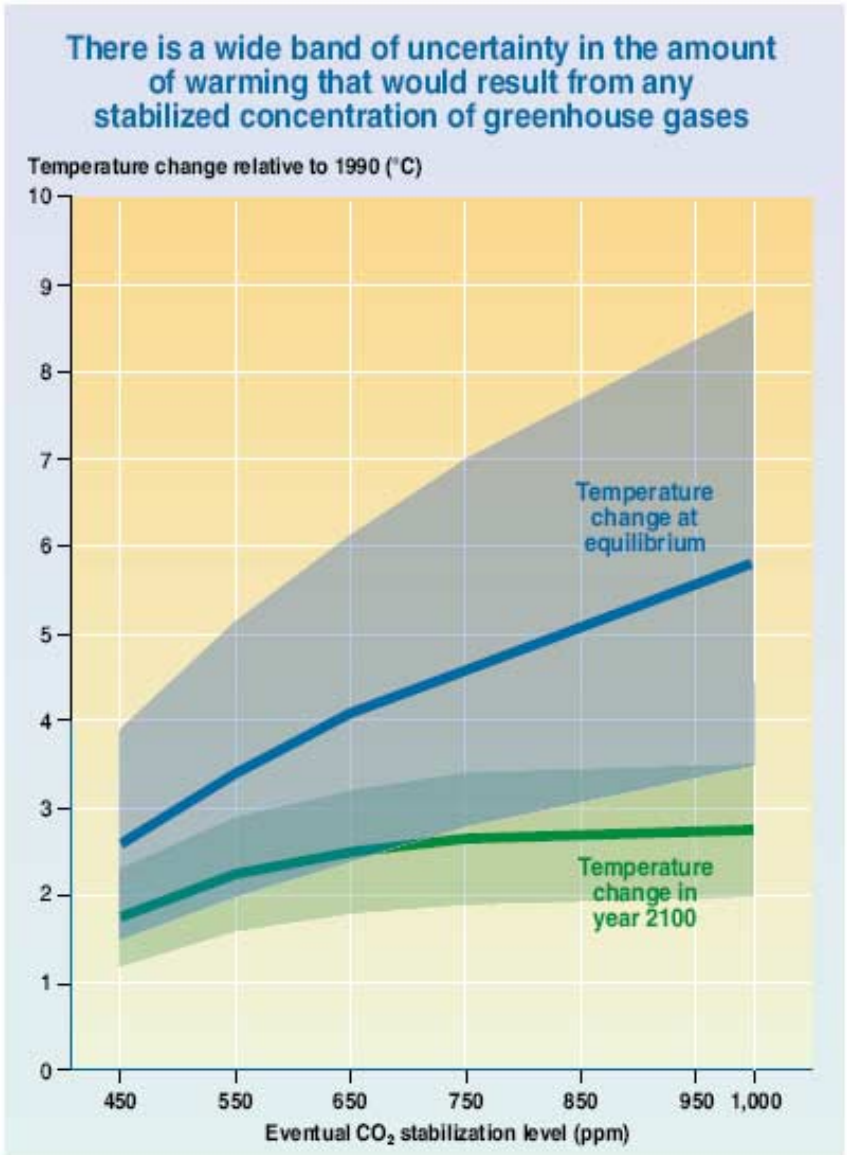
But we should all have read this report. What it was telling us was that the CO_2 concentrations, temperature and sea level continue to rise long after emissions are reduced.

It could take 100 – 300 years before CO_2 level is stabilized AFTER we drastically reduce emission. And the ice melting and sea level rise may be for several Millennia or for ever.

It is almost as bad as nuclear waste. But not quite.

IPCC 2001 The Third Assesment Report

There were still some uncertainty



The experts could not exactly say how big the global warming would be. But they could say that this depended on at which level we could stabilize the CO_2 content.

So somewhere between 2 degrees and 8 degrees as a possibility.

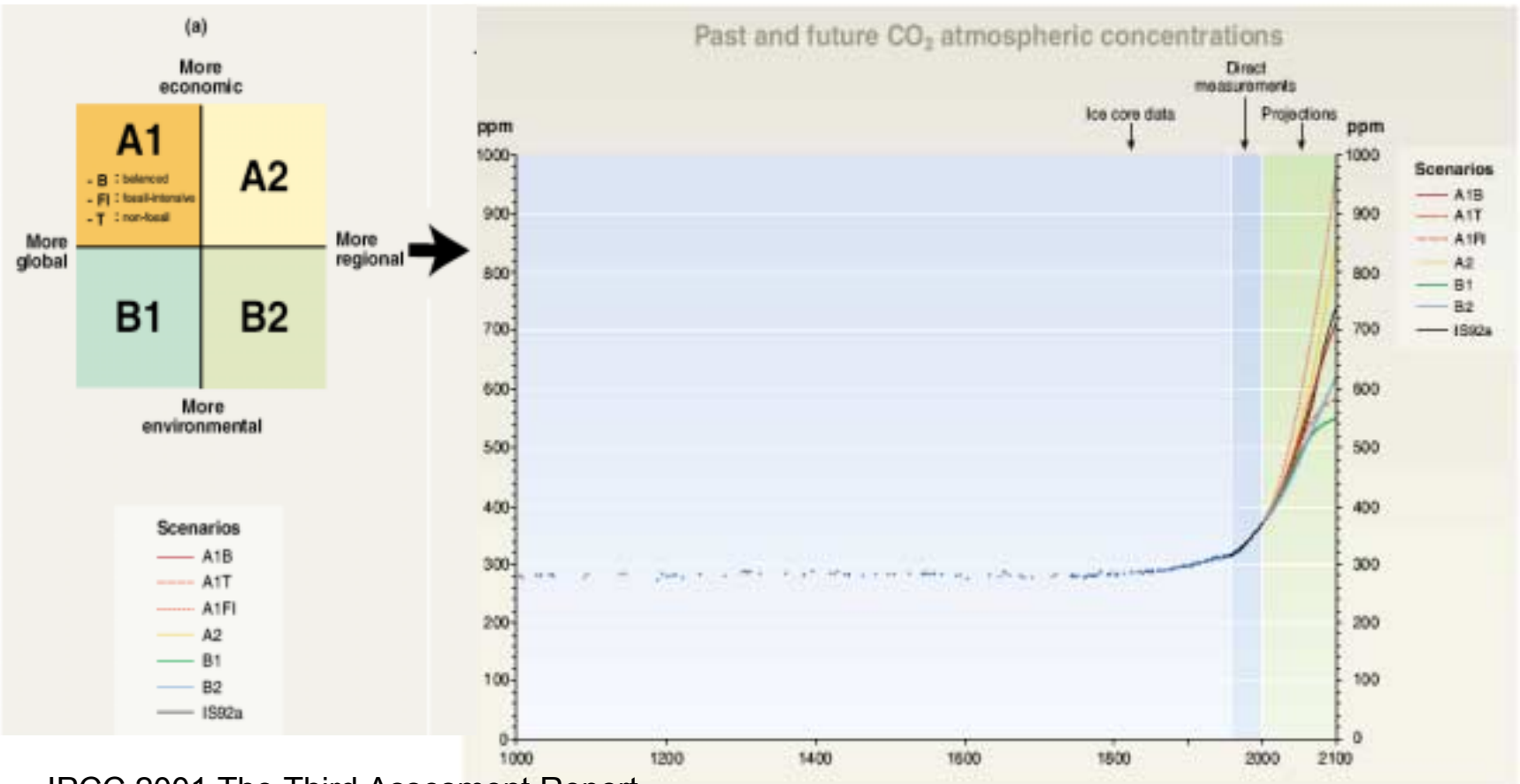
So in one hundred years we would be back some hundred million years to the age of the dinosaurs.
We are creating our Jurassic Park.

But maybe we are lucky and will be struck by a comet before then so we can compensate with some global cooling.

IPCC 2001 The Third Assesment Report

Our options with fossil or fossil

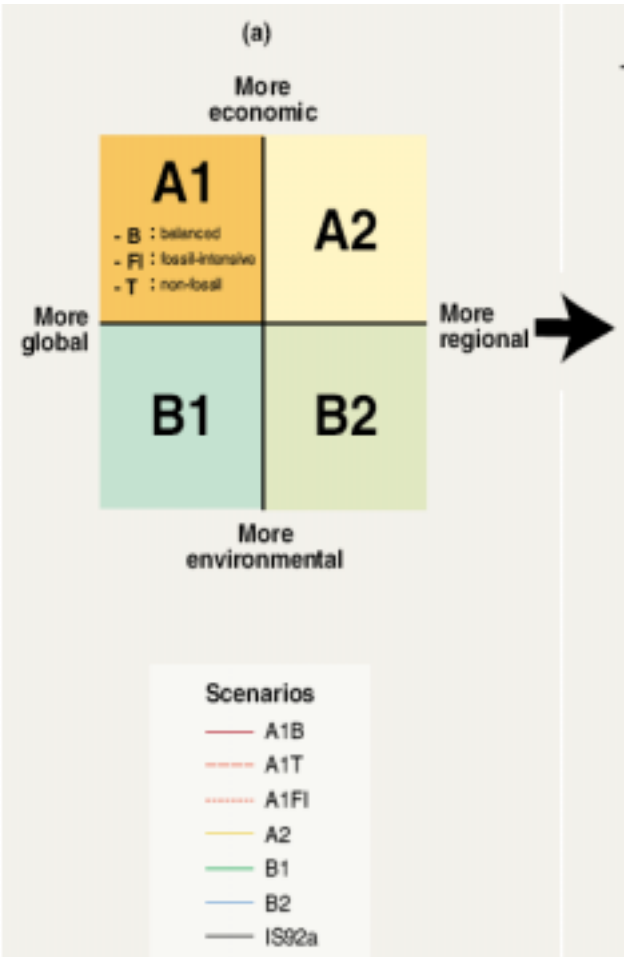
Well, we had already emitted so much CO_2 that we had started the self generating process. But we still had some options if we responded fast. If we used the environment as the guiding principle for our activities instead of the economy. If we became more regional instead of global. But we did exactly the opposite. Liberalization and globalization was the new religion. The lobbyists from big business knew what they were doing – Pump more oil!



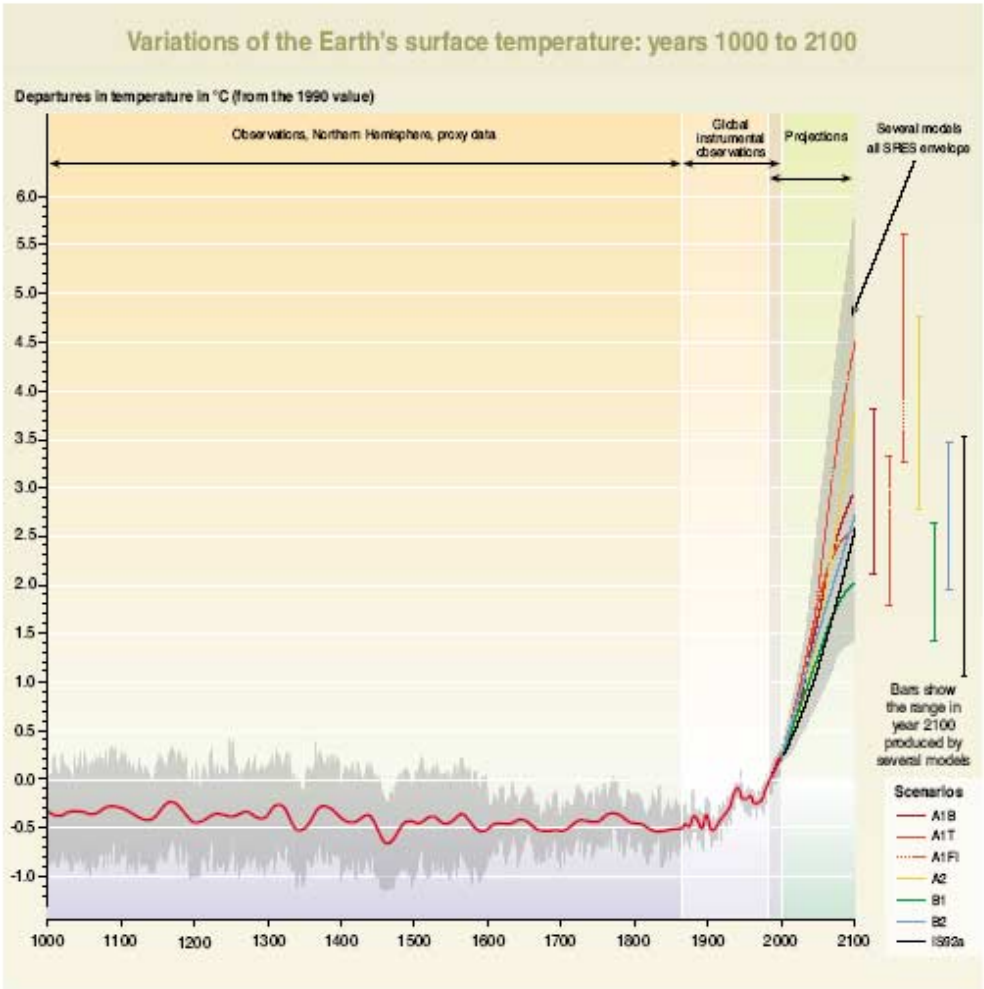
IPCC 2001 The Third Assesment Report

Our options is warm, warmer, warmest

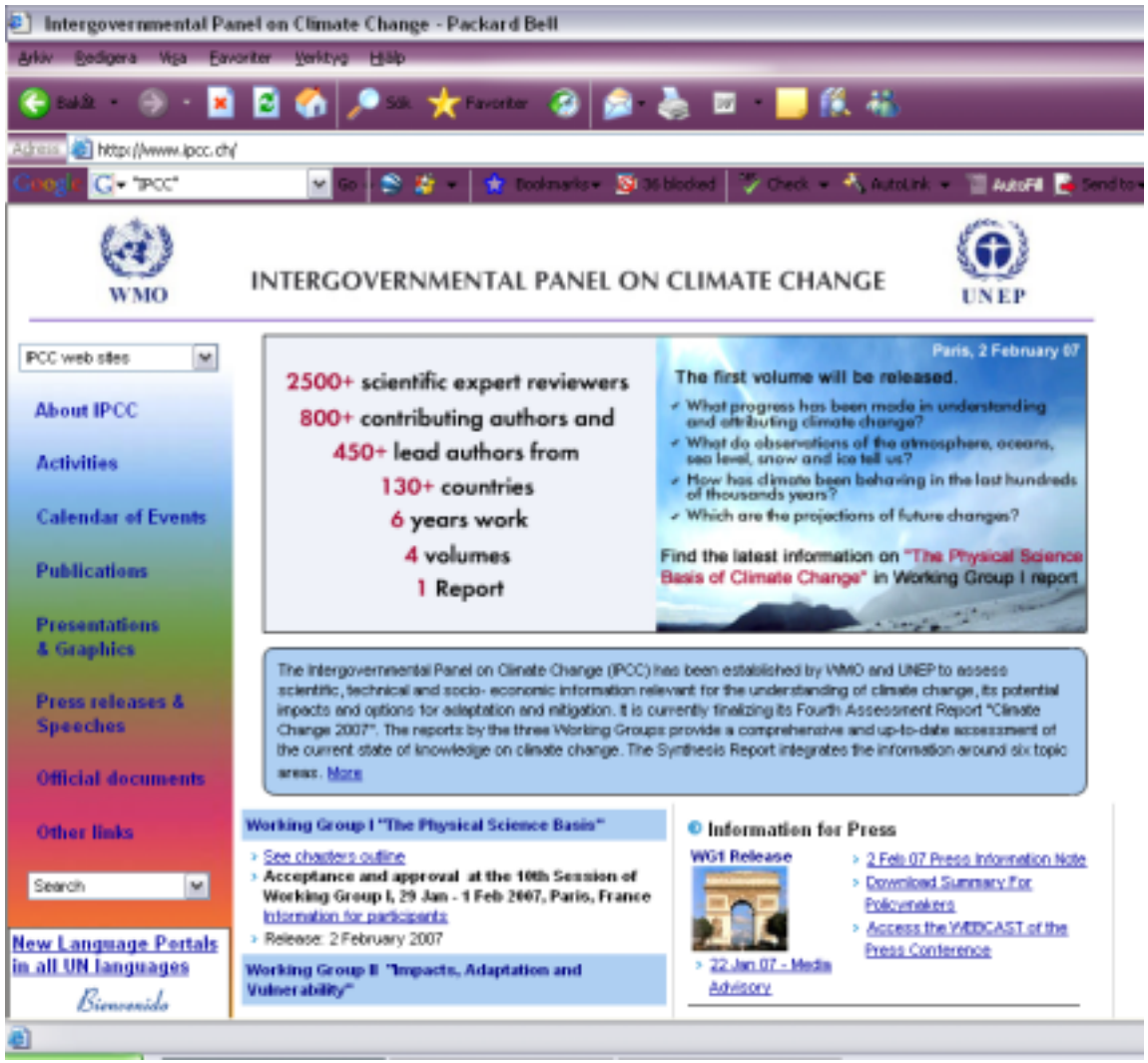
So we were 100% sure the world was getting warming but not 100 % sure exactly how much warmer. And still we had many of our leaders that did not hear, did not see, did not understand or just preferred not to do anything. Except to built a big boat or a big wall. “The white stupid men”.



IPCC 2001 The Third Assesment Report



The IPCC 2007 WG1 report in February



So in February 2007 came a new assessment report from IPCC WG1.

Not much had changed really from the first report in Sundsvall 1990 or the third report 2001. Or what we concluded 1972!

The experts were just more certain that the facts they had were correct. And that their conclusions were more probable. We had a BIG problem! But the really BIG problem was that no one still reacted!

"The Market" was not interested and "The Market" was now controlling everything!

IPCC 2007 The Fourth Assessment Report

The IPCC 2007 WG1 report in February

The understanding of anthropogenic warming and cooling influences on climate has improved since the Third Assessment Report (TAR), leading to *very high confidence*[7] that the globally averaged net effect of human activities since 1750 has been one of warming, with a radiative forcing of +1.6 [+0.6 to +2.4] W m^{-2}. (see Figure SPM-2). {2.3. 6.5, 2.9}

Direct Observations of Recent Climate Change

Since the TAR, progress in understanding how climate is changing in space and in time has been gained through improvements and extensions of numerous datasets and data analyses, broader geographical coverage, better understanding of uncertainties, and a wider variety of measurements. Increasingly comprehensive observations are available for glaciers and snow cover since the 1960s, and for sea level and ice sheets since about the past decade. However, data coverage remains limited in some regions.

Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level (see Figure SPM-3). {3.2, 4.2, 5.5}

- Eleven of the last twelve years (1995 -2006) rank among the 12 warmest years in the instrumental record of global surface temperature[9] (since 1850). The updated 100-year linear trend (1906–2005) of 0.74 [0.56 to 0.92]°C is therefore larger than the corresponding trend for 1901-2000 given in the TAR of 0.6 [0.4 to 0.8]°C. The linear warming trend over the last 50 years (0.13 [0.10 to 0.16]°C per decade) is nearly twice that for the last 100 years. The total temperature increase from 1850 – 1899 to 2001 – 2005 is 0.76 [0.57 to 0.95]°C. Urban heat island effects are real but local, and have a negligible influence (less than 0.006°C per decade over land and zero over the oceans) on these values. {3.2}

The IPCC 2007 WG2 report in April

But now the consequences were much more severe, flooding, draft, insects, ocean acidification, saturation and even reversal of ecosystem carbon absorption capability – amplifying climate change, 20-30% of plant and animal species at risk, major changes in ecosystems.....

- If you believe in the Bible you should really be worried!

- And if you do not believe in the Bible you should be even more worried!

Ecosystems

The resilience of many ecosystems is likely to be exceeded this century by an unprecedented combination of climate change, associated disturbances (e.g., flooding, drought, wildfire, insects, ocean acidification), and other global change drivers (e.g., land use change, pollution, over-exploitation of resources). ** N [4.1 to 4.6]

Over the course of this century net carbon uptake by terrestrial ecosystems is likely to peak before mid-century and then weaken or even reverse[11], thus amplifying climate change. ** [4.ES]

Approximately 20-30% of plant and animal species assessed so far are likely to be at increased risk of extinction if increases in global average temperature exceed 1.5-2.5°C. * N [4.4, T4.1]

For increases in global average temperature exceeding 1.5-2.5°C and in concomitant atmospheric carbon dioxide concentrations, there are projected to be major changes in ecosystem structure and function, species' ecological interactions, and species' geographic ranges, with predominantly negative consequences for biodiversity, and ecosystem goods and services e.g., water and food supply. ** N [4.4]

The progressive acidification of oceans due to increasing atmospheric carbon dioxide is expected to have negative impacts on marine shell forming organisms (e.g., corals) and their dependent species. * N [B4.4, 6.4]

http://www.ipcc.ch/press/index.htm

The IPCC 2007 WG2 report in April

And the people who has done almost nothing to create the global warming is going to be hit the hardest. The same Africa that was divided by the Europeans as colonies and that supplied the slaves to the Americans.

Africa

By 2020, between 75 and 250 million people are projected to be exposed to an increase of water stress due to climate change. If coupled with increased demand, this will adversely affect livelihoods and exacerbate water-related problems. ** D [9.4, 3.4, 8.2, 8.4]

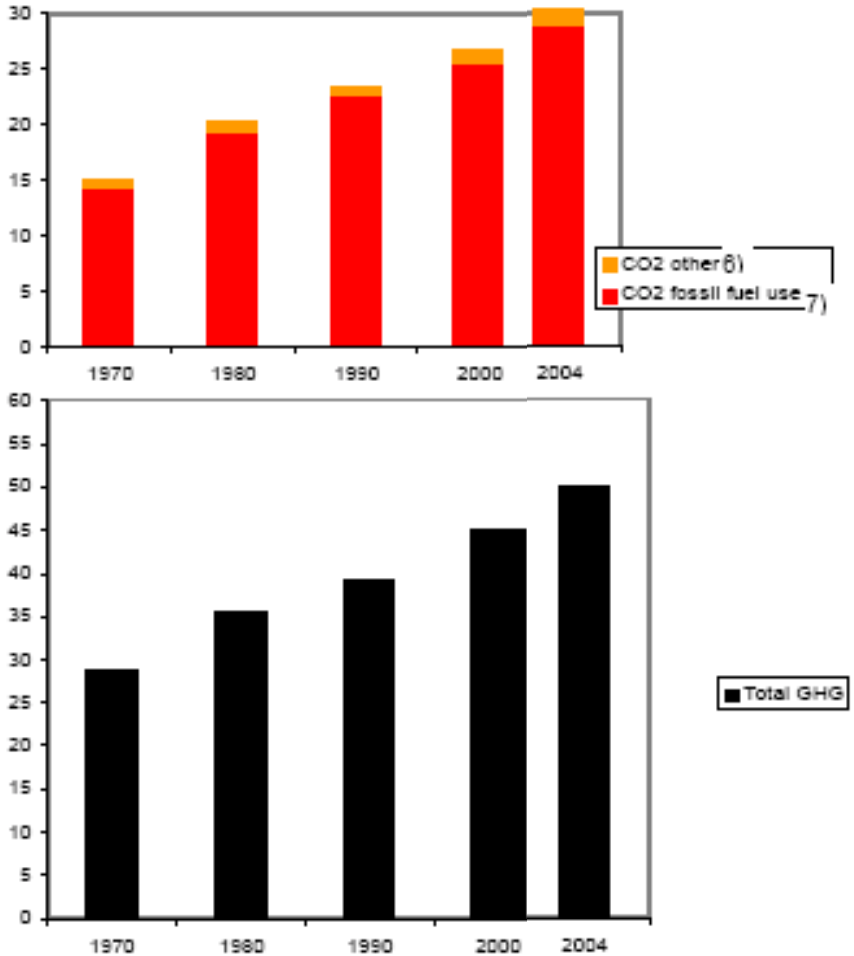
Agricultural production, including access to food, in many African countries and regions is projected to be severely compromised by climate variability and change. The area suitable for agriculture, the length of growing seasons and yield potential, particularly along the margins of semi-arid and arid areas, are expected to decrease. This would further adversely affect food security and exacerbate malnutrition in the continent. In some countries, yields from rain-fed agriculture could be reduced by up to 50% by 2020. ** D [9.2, 9.4, F9.4, 9.6, 8.4]

Local food supplies are projected to be negatively affected by decreasing fisheries resources in large lakes due to rising water temperatures, which may be exacerbated by continued over-fishing. ** N [9.4, 5.4, 8.4]

Towards the end of the 21st century, projected sea-level rise will affect low-lying coastal areas with large populations. The cost of adaptation could amount to at least 5-10% of GDP. Mangroves and coral reefs are projected to be further degraded, with additional consequences for fisheries and tourism. ** D [9.4]

New studies confirm that Africa is one of the most vulnerable continents to climate variability and change because of multiple stresses and low adaptive capacity. Some adaptation to current climate variability is taking place, however, this may be insufficient for future changes in climate. ** N [9.5]

The IPCC 2007 WG3 report in June



However, neither the WG1, WG2 or WG3 reports got any big head lines. They were on the “war on terror”.

The CO_2 emissions continued, the global warming continued, Katrina was forgotten. New car models were on sale. Interest rates was reduced to increase consumption. Somebody got the bright idea that now when the ice was disappearing around the North Pole it was possible to drill for more oil there.

Spain and Greece cooled down. The wildfires in California were defeated. Christmas shopping was coming up. Some drowning or homeless thousands of people in some remote part in Asia or Latin America did not upset anyone. Neither did the species going extinct.

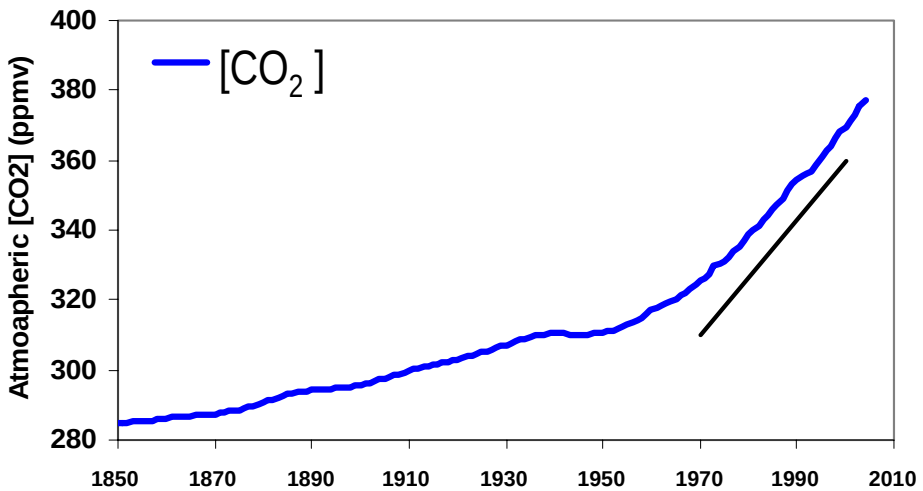
Then came the Carbon Project Report

Atmospheric CO_2 Concentration

Year 2006
Atmospheric CO_2 concentration:

381 ppm

35% above pre-industrial



1970 – 1979: 1.3 ppm y^{-1}
1980 – 1989: 1.6 ppm y^{1}
1990 – 1999: 1.5 ppm y^{-1}

2000 - 2006: 1.9 ppm y^{-1}

The increase of CO_2 went even much faster than we earlier had thought!

Last update: 20 October 2007

NOAA 2007; Canadell et al. 2007, PNAS

Attribution of Recent Acceleration of Atmospheric CO_2

1970 – 1979: 1.3 ppm y^{-1}
1980 – 1989: 1.6 ppm y^{1}
1990 – 1999: 1.5 ppm y^{-1}

2000 - 2006: 1.9 ppm y^{-1}

To:
- Economic growth
- Carbon intensity
- Efficiency of natural sinks

65% - Increased activity of the global economy

17% - Deterioration of the carbon intensity of the global economy

18% - Decreased efficiency of natural sinks

Global Carbon Project

Last update: 20 October 2007

Canadell et al. 2007, PNAS

The conclusion was that “increase economic activities (Transport, Commerce) was one of the main reasons. The Globalization mantra was takeing it’s toll. But we also generally had higher fossil fuel intensity. But an even more alarming fact was that nature was saturated and could no longer absorb these quantities!

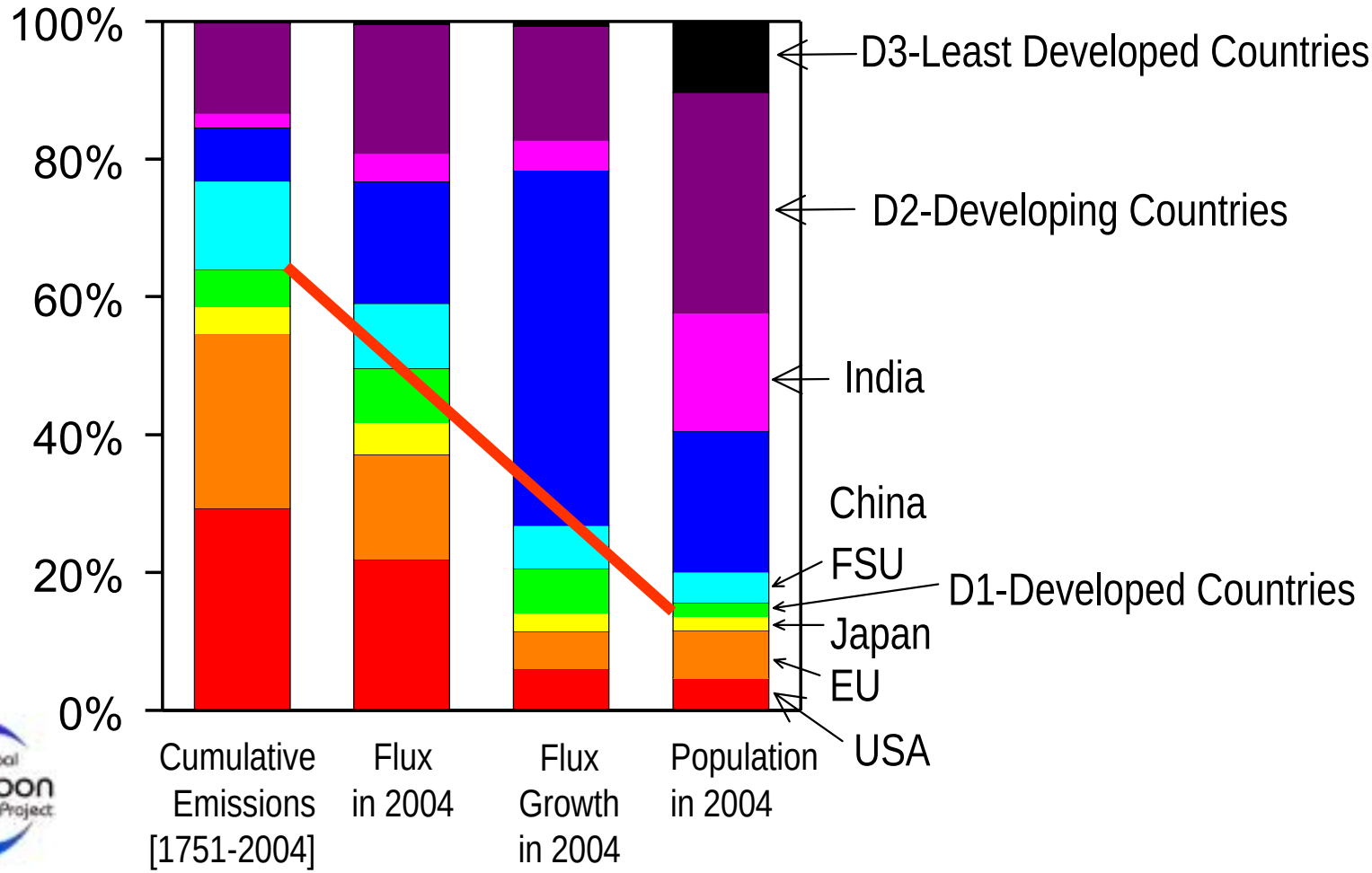
1. Increased economic activities (transport, commerce etc.); The CO_2 emission increased with 3,3%/year between 2000- 2006 compared to 1,3 %/year between 1990- 1999

2. The increase of CO2 emission is now going faster than both population growth and BNP growth
   = Increased use of fossil fuels/Carbon intensity

3. The declining efficiency of natural CO_2 sinks;
   = 50 years ago, for every ton of CO_2 emitted 60% was absorbed by sea and land. Today this is only 50%

4. This gives acceleration of atmospheric CO_2 with 1,9 ppm/year 2000-2006 compared to 1,5 ppm/year 1990 - 1999

And it was absolutely clear who caused the problems. Two thirds of the cumulative emissions comes from the industrialized western countries in USA, Canada, Europe, Australia and Japan which represent 19% of the world population. USA alone with less than 5% of the world population was responsible for almost one third of the cumulative emissions



Last update: 20 October 2007

http://www.globalcarbonproject.org/

The IPCC 2007 syntesis report

These reports did however not reach any big headlines in media. But then for a short moment on November 16th some media and news channels actually reported the findings of IPCC. But just for a short moment.

Summary for Policymakers of the Synthesis Report of the IPCC Fourth Assessment Report
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Introduction

This Synthesis Report is based on the assessment carried out by the three Working Groups of the IPCC. It provides an integrated view of climate change as the final part of the IPCC's Fourth Assessment Report.

A complete elaboration of the topics covered in this summary can be found in this Synthesis Report and in the underlying reports of the three Working Groups.

1. Observed changes in climate and their effects

Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level (Figure SPM.1). {1.1}

Eleven of the last twelve years (1995-2006) rank among the twelve warmest years in the instrumental record of global surface temperature (since 1850). The 100-year linear trend (1906-2005) of 0.74 [0.56 to 0.92]°C [1] is larger than the corresponding trend of 0.6 [0.4 to 0.8]◦C (1901-2000) given in the Third Assessment Report (TAR) (Figure SPM.1). The temperature increase is widespread over the globe, and is greater at higher northern latitudes. Land regions have warmed faster than the oceans (Figures SPM.2, SPM.4). {1.1, 1.2}

IPCC 2007 The Fourth Assessment Report

The IPCC 2007 syntesis report

Although the new UN secretary general did his best to break the news

Vision of UN Secretary-General on Climate Change

- "Climate change is a serious threat to development everywhere"
- "Today, the time for doubt has passed. The IPCC has unequivocally affirmed the warming of our climate system, and linked it directly to human activity"
- "Slowing or even reversing the existing trends of global warming is the defining challenge of our ages"
- "Galvanising international action on global warming as one of main priorities as Secretary General"

The IPCC 2007 syntesis report

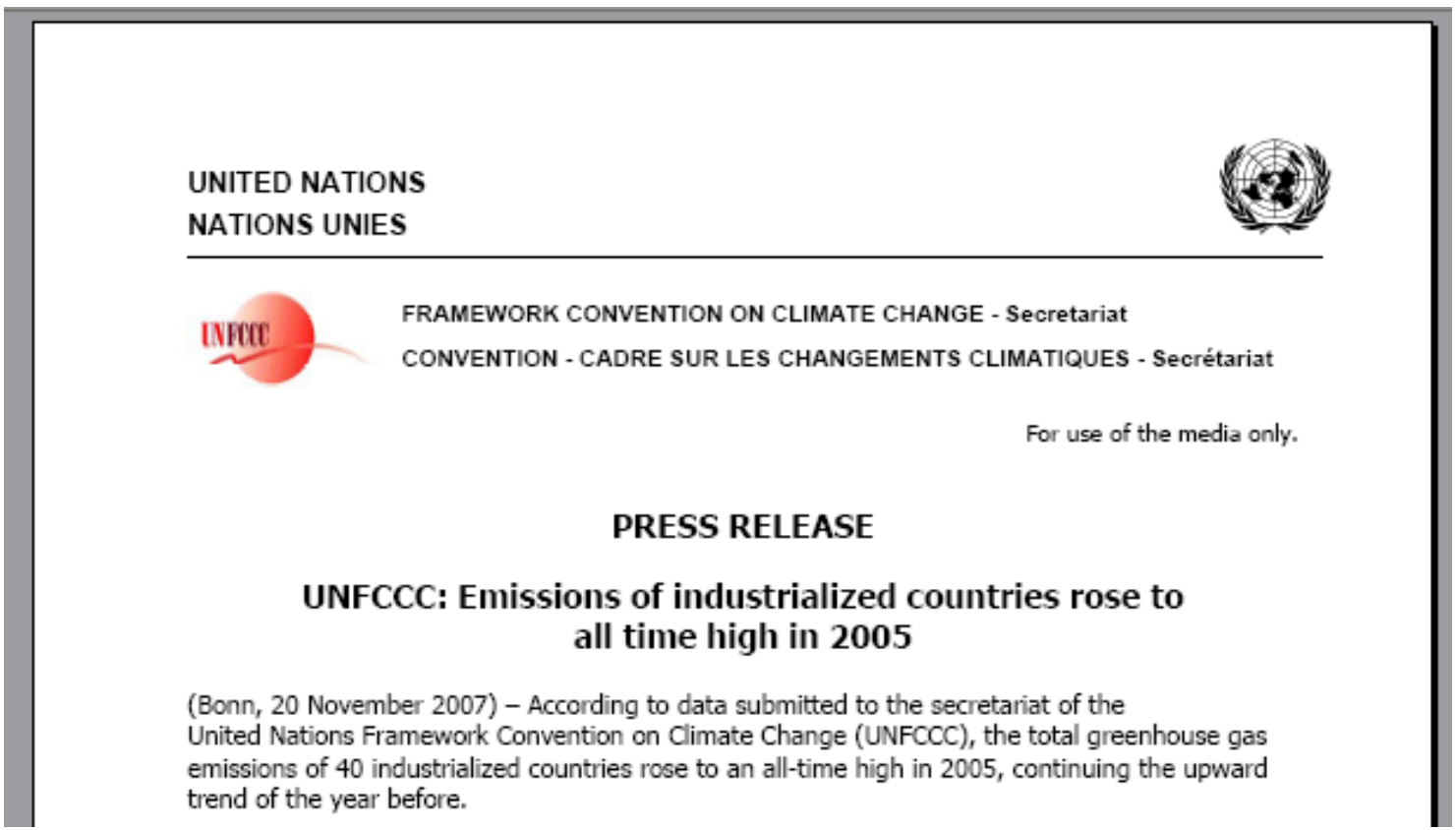
And since media likes disasters the quote “Sea level rise under warming is inevitable” did get some attention. But maybe few realized that even if we cut CO_2 emission with 85% we will end up 2 degrees warmer and with 1 meter higher ocean level. And if we don’t we may end up with up to 6 degrees higher temperature and almost 4 meters higher ocean level. But this is just the small and visible problems. We are ruining the ecosystem.

Category	CO_2 concentration at stabilization (2005 = 379 ppm) [b]	CO_2-equivalent Concentration at stabilization including GHGs and aerosols (2005 = 375 ppm) [b]	Peaking year for CO_2 emissions [a, c]	Change in global CO_2 emissions in 2050 (% of 2000 emissions) [a, c]	Global average temperature increase above pre-industrial at equilibrium, using “best estimate” climate sensitivity [d], [e]	**Global average sea level rise above pre-industrial at equilibrium from thermal expansion only [f]**	Number of assessed scenarios
	ppm	ppm	Year	Percent	°C	**metres**	
I	350 – 400	445 – 490	2000 – 2015	-85 to -50	2.0 – 2.4	**0.4 – 1.4**	6
II	400 – 440	490 – 535	2000 – 2020	-60 to -30	2.4 – 2.8	**0.5 – 1.7**	18
III	440 – 485	535 – 590	2010 – 2030	-30 to +5	2.8 – 3.2	**0.6 – 1.9**	21
IV	485 – 570	590 – 710	2020 – 2060	+10 to +60	3.2 – 4.0	**0.6 – 2.4**	118
V	570 – 660	710 – 855	2050 – 2080	+25 to +85	4.0 – 4.9	**0.8 – 2.9**	9
VI	660 – 790	855 – 1130	2060 – 2090	+90 to +140	4.9 – 6.1	**1.0 – 3.7**	5

- Sea level rise under warming is inevitable
- Long time scales of thermal expansion & ice sheet response to warming imply that stabilisation of GHG concentrations at or above present levels will not stabilise sea level for many centuries

4 days later came this report

This is what I do not understand. Here we have report after report telling us about the severity of the problem. That we have to change now. We have the attention when Al Gore and IPCC got the Nobel price. And still we continue BAU = Business As Usual. Are we hypnotized, are we on drugs, did we miss everything, or .....



UNITED NATIONS
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FRAMEWORK CONVENTION ON CLIMATE CHANGE - Secretariat
CONVENTION - CADRE SUR LES CHANGEMENTS CLIMATIQUES - Secrétariat

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PRESS RELEASE

UNFCCC: Emissions of industrialized countries rose to all time high in 2005

(Bonn, 20 November 2007) – According to data submitted to the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC), the total greenhouse gas emissions of 40 industrialized countries rose to an all-time high in 2005, continuing the upward trend of the year before.

What about Kyoto?

The Kyoto Protocol commits industrialized countries to a 5 per cent reduction target in 2008-2012 compared to 1990 levels. At least this was a start to do something!
So how does it look today? Well it does not look good at all.....

UNITED NATIONS
NATIONS UNIES

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http://unfccc.int/2860.php

Already large polluters like Canada and New Zealand INCREASED with 25% !!! Although they signed the protocol. USA and Australia did not sign and INCREASED with 26% and 16% !!!! Although they already have the highest per capita emission.

Part 2: 1990-2005 trends for Annex I Parties to the Kyoto Protocol[2]

Party	1990-2005 change of GHG emissions excluding LULUCF (%)	Emission reduction target under Kyoto Protocol (%)	Party	1990-2005 change of GHG emissions excluding LULUCF (%)	Emission reduction target under Kyoto Protocol (%)
Austria	18.0	*-13.0*	Latvia*	-58.9	-8.0
Belarus*	-40.6	-8.0[d]	Liechtenstein	17.4	-8.0
Belgium	-1.3	*-7.5*	Lithuania*	-54.1	-8.0
Bulgaria*[a]	-47.2	-8.0	Luxembourg	0.4	*-28.0*
Canada	25.3	-6.0	Monaco	-3.1	-8.0
Croatia*	-5.4[c]	-5.0	Netherlands	-0.4	*-6.0*
Czech Republic*	-25.8	-8.0	New Zealand	24.7	0
Denmark	-7.2	*-21.0*	Norway	8.8	1.0
Estonia*	-50.9	-8.0	Poland*[a]	-32.0	-6.0
European Community[b]	-1.5	-8.0	Portugal	42.8	*27.0*
Finland	-2.5	*0*	Romania*[a]	-45.6	-8.0
France	-1.9	*0*	Russian Federation*	-28.7	0
Germany	-18.4	*-21.0*	Slovakia*	-33.6	-8.0
Greece	26.6[c]	*25.0*	Slovenia*[a]	0.4	-8.0
Hungary*[a]	-30.7	-6.0	Spain	53.3	*15.0*
Iceland	10.5	10.0	Sweden	-7.3	*4.0*
Ireland	26.3	*13.0*	Switzerland	1.7	-8.0
Italy	12.1	*-6.5*	Ukraine*	-54.7	0
Japan	6.9	-6.0	United Kingdom	-14.8	*-12.5*

Australia	25.6
United States of America	16.3

http://unfccc.int/2860.php

What happened after Kyoto?

Well I could say that I am proud since my native country of Sweden is one of the few countries that has been able to during a long time reduce CO_2 emissions but still have a high quality of life. But I am not. We are like the rest of the western world consuming more and we travel more. The fact is also that a lot of the CO_2 increase from the developing world is to produce things and services to us in the rich world!

- Canada agreed under the Kyoto Protocol to target a 6 percent cut in emissions. In the event, emissions have increased by 27 percent and the country is now around 35 percent above its Kyoto target range. While greenhouse gas intensity has fallen, efficiency gains have been swamped by an increase in emissions from an expansion in oil and gas production. Net emissions associated with oil and gas exports have more than doubled since 1990.
- Japan's emissions in 2005 were 8 percent above 1990 levels. The Kyoto target was for a 6 percent reduction. On current trends it is projected that the country will miss its target by around 14 percent. While emissions from industry have fallen marginally since 1990, large increases have been registered in emissions from transportation (50 percent for passenger vehicles) and the residential sector. Household emissions have grown more rapidly than the number of households.
- The United States is a signatory to the Kyoto Protocol but it has not ratified the treaty. If it had, it would have been required to reduce its emissions to 7 percent below 1990 levels by 2010. Overall emissions have increased by 16 percent. By 2010 projected emissions are 1.8 Gt above 1990 levels on a rising trend. Emissions have grown across all major sectors despite a 21 percent decline in greenhouse gas intensity of the United States' economy, as measured by the ratio of greenhouse gas emissions to GDP.

- The European Union made average emission reduction commitments of 8 percent under Kyoto. Actual cuts have amounted to around 2 percent and European Environment Agency projections suggest that current policies will leave this picture unchanged by 2010. Emissions from the transport sector increased by one-quarter. Emissions from electricity and heat generation increased by 6 percent. Large increases in renewable energy supply will be required to meet the Kyoto targets, but the European Union is falling short of the investments needed to meet its own target of 20 percent provision by 2020.

- Like the United States, Australia did not ratify the Kyoto Protocol. Overall emissions have grown at around twice the rate that would have been required had the country participated, with emissions rising by 21 percent since 1990. High levels of dependence on coal-fired power generation contributed to large increases in the energy sector, with CO_2 emissions rising by over 40 percent.

Looking to the post-2012 period, the challenge is to forge an international agreement that engages all major emitting countries in a long term effort to achieve a sustainable carbon budget for the 21st Century. There is little that governments can do today that will have significant effects on emissions between 2010 and 2012: like oil tankers, energy systems have large turning circles.

Table 6. Total anthropogenic carbon dioxide emissions excluding emissions/removals from land use, land-use change and forestry, 1990, 1995, 2000, 2004 and 2005

Party	Gg CO_2 1990	1995	2000	2004	2005	Change from 1990 to 2005 (%)
Australia	279 764	306 856	352 415	381 446	384 161	37.3
Austria	61 930	63 661	65 960	77 140	79 650	28.6
Belarus*	101 947	56 233	51 911	54 920	55 292	-45.8
Belgium	119 081	123 658	124 053	126 748	123 329	3.6
Bulgaria*[a]	98 792	66 340	50 463	53 264	54 978	-44.3
Canada	458 915	491 809	563 578	583 428	583 379	27.1
Croatia*	23 035	16 250	19 417	22 551	22 551[c]	-2.1
Czech Republic*	165 060	132 125	129 017	127 297	125 932	-23.7
Denmark	54 044	61 542	54 445	55 447	51 885	-4.0
Estonia*	37 681	19 458	16 469	18 799	18 270	-51.5
European Community[b]	3 357 427	3 282 193	3 353 686	3 508 074	3 482 238	3.7
Finland	56 768	58 210	57 209	68 605	57 011	0.4
France	395 106	393 177	407 900	417 508	416 610	5.4
Germany	1 032 348	921 190	883 055	896 775	872 943	-15.4
Greece	84 314	87 426	103 963	110 280	110 280[c]	30.8
Hungary*[a]	85 969	61 940	58 931	60 267	61 808	-28.1
Iceland	2 151	2 299	2 745	2 863	2 872	33.5
Ireland	32 553	35 481	44 884	45 747	47 292	45.3
Italy	434 762	445 712	463 607	490 933	493 372	13.5
Japan	1 144 197	1 228 053	1 256 736	1 287 602	1 293 469	13.0
Latvia*	19 136	9 074	7 021	7 502	7 574	-60.4
Liechtenstein	203	209	228	240	240	18.1
Lithuania*	36 169	15 158	12 085	13 597	14 315	-60.4
Luxembourg	12 104	9 158	8 828	11 978	11 874	-1.9
Monaco	105	112	113	100	98	-6.4
Netherlands	159 389	170 625	169 577	181 290	175 905	10.4
New Zealand	25 462	27 208	31 043	34 050	35 880	40.9
Norway	34 786	37 810	41 553	43 855	43 149	24.0
Poland*[a]	494 686	377 448	333 253	325 382	326 511	-34.0
Portugal	43 352	53 077	63 538	66 146	67 918	56.7
Romania*[a]	193 926	134 825	97 474	116 747	110 532	-43.0
Russian Federation*	2 442 217	1 690 171	1 622 708	1 698 054	1 744 084	-28.6
Slovakia*	60 222	43 716	39 382	40 244	39 757	-34.0
Slovenia*[a]	16 262	14 952	15 196	16 407	16 754	2.9
Spain	228 517	255 585	307 674	351 816	368 282	61.2
Sweden	56 421	58 043	53 416	55 182	52 569	-6.8
Switzerland	44 512	43 329	43 912	45 327	45 966	3.3
Turkey**	139 594	171 854	223 806	241 684	241 684[c]	73.3
Ukraine*	714 044	392 067	294 585	315 631	321 541	-55.0
United Kingdom	590 341	549 788	550 494	557 841	557 546	-5.6
United States of America	5 061 634	5 384 615	5 939 968	6 064 329	6 089 490	20.3
Decrease in emissions by more than 1 per cent (number of Parties)						*19*
Change in emissions within 1 per cent (number of Parties)						*1*
Increase in emissions by more than 1 per cent (number of Parties)						*21*

[a] Data for the base year defined by decisions 9/CP.2 and 11/CP.4 (Bulgaria (1988), Hungary (average of 1985–1987), Poland (1988), Romania (1989), Slovenia (1986)) are used for this Party instead of 1990 data.
[b] Emission estimates of the European Community are reported separately from those of its member States.
[c] Values for 2004 are used here as the latest available estimate.

The terrorists

And WE are the same old countries in Australia, New Zeeland, Japan, Canada and USA. Europe as a whole did decrease but several "booming" countries still increased like Italy, Spain, Portugal, Ireland.

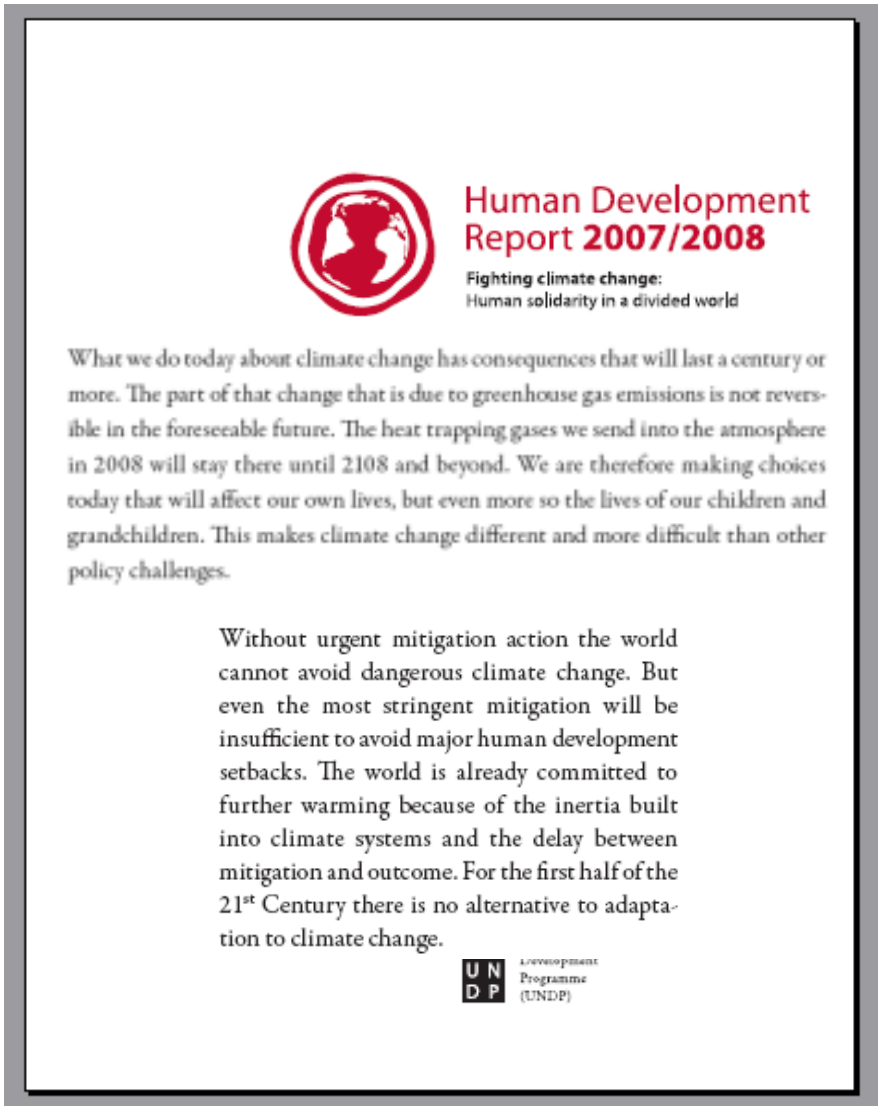
The statistics would have been even worse if not for the break up of Soviet and the Eastern block. Russia, Poland, Ukraine etc. actually decreased the emissions with about 30 – 50%

United States alone increased emissions with the same amount as the total emission for India 2005.

http://unfccc.int/2860.php
UNFCCC 24 Oct 2007

The UNDP Human Development Report

November 27th the most explicit report came. It dared to point the finger on root cause = The rich countries and our unsustainable life style. But it also concluded- It is already too late! We still have to build the big boat. And let everybody on board.



Human Development Report **2007/2008**

Fighting climate change:
Human solidarity in a divided world

What we do today about climate change has consequences that will last a century or more. The part of that change that is due to greenhouse gas emissions is not reversible in the foreseeable future. The heat trapping gases we send into the atmosphere in 2008 will stay there until 2108 and beyond. We are therefore making choices today that will affect our own lives, but even more so the lives of our children and grandchildren. This makes climate change different and more difficult than other policy challenges.

Without urgent mitigation action the world cannot avoid dangerous climate change. But even the most stringent mitigation will be insufficient to avoid major human development setbacks. The world is already committed to further warming because of the inertia built into climate systems and the delay between mitigation and outcome. For the first half of the 21st Century there is no alternative to adaptation to climate change.

UNDP Development Programme (UNDP)

12:00 GMT (10 am in Brasilia) 27 November 2007

http://hdr.undp.org/en/

Combating climate change demands that we place ecological imperatives at the heart of economics. That process has to start in the developed world—and it has to start today.

Facing up to that threat will create challenges at many levels. Perhaps most fundamentally of all, it challenges the way that we think about progress. There could be no clearer demonstration than climate that economic wealth creation is not the same thing as human progress. Under the current energy policies, rising economic prosperity will go hand-in-hand with mounting threats to human development today and the well-being of future generations. But carbon-intensive economic growth is symptomatic of a deeper problem. One of the hardest lessons taught by climate change is that the economic model which drives growth, and the profligate consumption in rich nations that goes with it, is ecologically unsustainable.

The same divided world!

The report provides evidence of the mechanisms through with the ecological impacts of climate change will be transmitted to the poor. Focusing on the 2.6 billion people surviving on less than US$2 a day, the authors warn forces unleashed by global warming could stall and then reverse progress built up over generations. Among the threats to human development identified by ***Fighting climate change***:

The report, ***Fighting climate change: Human solidarity in a divided world,*** provides a stark account of the threat posed by global warming. It argues that the world is drifting towards a "tipping point" that could lock the world's poorest countries and their poorest citizens in a downward spiral, leaving hundreds of millions facing malnutrition, water scarcity, ecological threats, and a loss of livelihoods.

"Ultimately, climate change is a threat to humanity as a whole. But it is the poor, a constituency with no responsibility for the ecological debt we are running up, who face the immediate and most severe human costs," commented UNDP Administrator Kemal Derviş. *

Quotes from the UN Human Development Report 2007/2008

The same western countries that divided up the world in colonial empires, introduced slavery and "trafficking", invaded the American and Australian continents to ruin the original nature and people is responsible for our crisis.

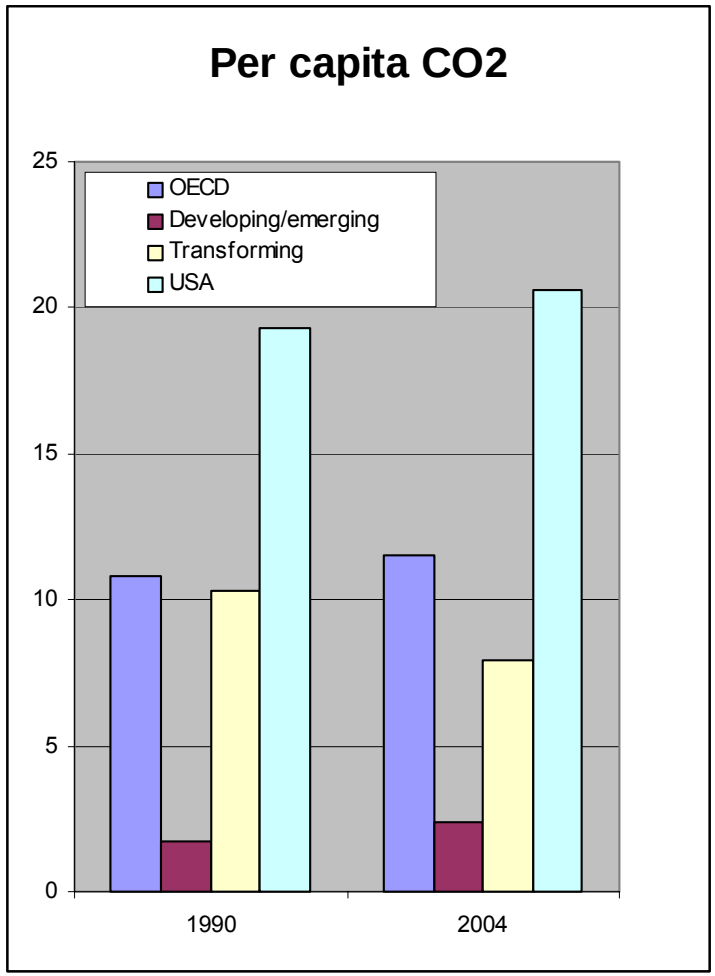
And the same innocent people in the poor countries are going to suffer even more. Still we continue to pollute, to dominate others and to claim that our model is the best. Some of US won't even sign a treaty.

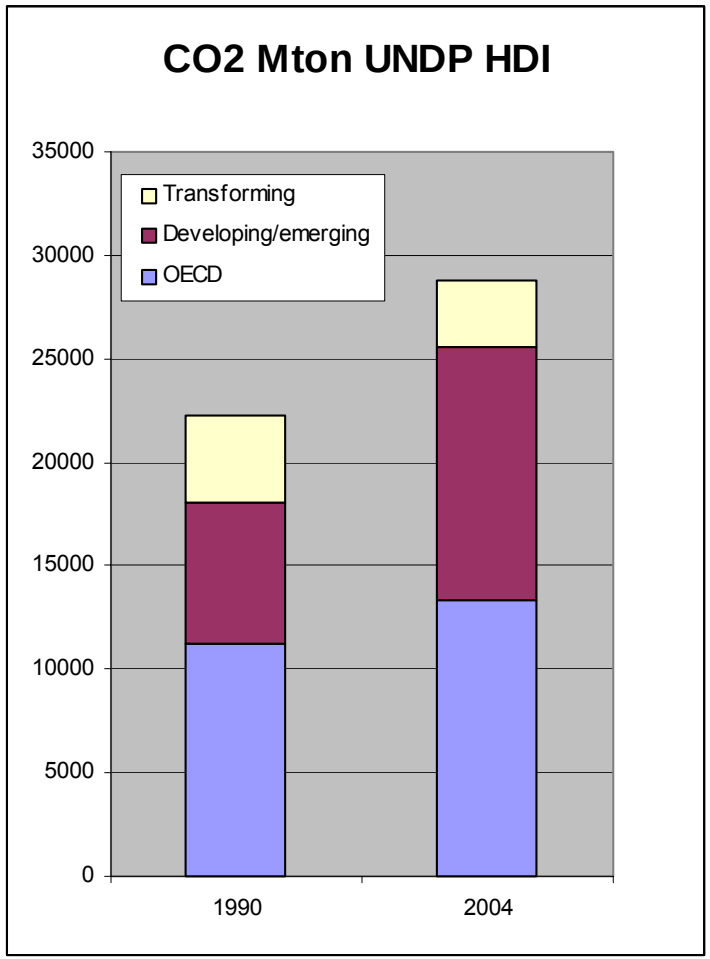
Shame on US!

http://hdr.undp.org/en/

12:00 GMT (10 am in Brasilia) 27 November 2007

Is being even more divided





CO2/capita	1990	2004	Increase
OECD	10,8	11,5	0,7
Developing/emerging	1,7	2,4	0,7
Transforming	10,3	7,9	-2,4
USA	19,3	20,6	1,3

OECD = The developed western markets
”Transforming Economies” = Ex Soviet and East Europe

The UNDP report shows that yes the developing countries are catching up in total emissions. But the per capita increase is the same in OECD and twice in USA! An a inconvenient truth!

If you are not with US you are against US

TABLE 30

Human and labour rights instruments

Status of major international human rights instruments

● Ratification, accession or succession.
○ Signature not yet followed by ratification.

HDI rank	International Convention on the Prevention and Punishment of the Crime of Genocide 1948	International Convention on the Elimination of All Forms of Racial Discrimination 1965	International Covenant on Civil and Political Rights 1966	International Covenant on Economic, Social and Cultural Rights 1966	Convention on the Elimination of All Forms of Discrimination against Women 1979	Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment 1984	Convention on the Rights of the Child 1989
HIGH HUMAN DEVELOPMENT							
1 Norway	●	●	●	●	●	●	●
2 Iceland	●	●	●	●	●	●	●
3 Australia	●	●	●	●	●	●	●
4 Ireland	●	●	●	●	●	●	●
5 Sweden	●	●	●	●	●	●	●
6 Canada	●	●	●	●	●	●	●
7 Japan		●	●	●	●	●	●
8 United States	●	●	●	○	○	●	○
9 Switzerland	●	●	●	●	●	●	●
10 Netherlands	●	●	●	●	●	●	●

TABLE 31

Human and labour rights instruments

Status of fundamental labour rights conventions

HDI rank	Freedom of association and collective bargaining: Convention 87[a]	Freedom of association and collective bargaining: Convention 98[b]	Elimination of forced and compulsory labour: Convention 29[c]	Elimination of forced and compulsory labour: Convention 105[d]	Elimination of discrimination in respect of employment and occupation: Convention 100[e]	Elimination of discrimination in respect of employment and occupation: Convention 111[f]	Abolition of child labour: Convention 138[g]	Abolition of child labour: Convention 182[h]
HIGH HUMAN DEVELOPMENT								
1 Norway	●	●	●	●	●	●	●	●
2 Iceland	●	●	●	●	●	●	●	●
3 Australia	●	●	●	●	●	●		
4 Ireland	●	●	●	●	●	●	●	●
5 Sweden	●	●	●	●	●	●	●	●
6 Canada	●			●	●	●		●
7 Japan	●	●	●		●		●	●
8 United States	○	○	○	●	○	○	○	●
9 Switzerland	●	●	●	●	●	●	●	●
10 Netherlands	●	●	●	●	●	●	●	●

USA did not approve the Kyoto and other important environmental agreements. But what is equally surprising s that USA neither approved most of the human rights agreements. Since USA is the largest economy, has by far the largest army and is the largest polluter we have to get USA to accept the international community.

We can not fail again

We have known this problem for 35 years. During that time the already rich and high consuming western countries with USA in the lead has continuously increase the consumption and pollution. This is now equal to nine (9) planets! Still there is no sense of urgency. This is the worst crime ever. It is up to you and me to put all pressure we can on our decision makers, friends, families, colleagues and ourselves – to change!

Table 1 Carbon footprints at OECD levels would require more than one planet [a]

	CO_2 emissions per capita ($t\ CO_2$) 2004	Equivalent global CO_2 emissions [b] ($Gt\ CO_2$) 2004	Equivalent number of sustainable carbon budgets [c]
World [d]	4.5	29	2
Australia	16.2	104	7
Canada	20.0	129	9
France	6.0	39	3
Germany	9.8	63	4
Italy	7.8	50	3
Japan	9.9	63	4
Netherlands	8.7	56	4
Spain	7.6	49	3
United Kingdom	9.8	63	4
United States	20.6	132	9

a. As measured in sustainable carbon budgets.
b. Refers to global emissions if every country in the world emitted at the same per capita level as the specified country.
c. Based on a sustainable emissions pathway of 14.5 Gt CO_2 per year.
d. Current global carbon footprint.

Source: HDR0 calculations based on Indicator Table 24.

Because if we fail:

Such an outcome would represent not just a failure of political imagination and leadership, but a moral failure on a scale unparalleled in history. During the 20th Century failures of political leadership led to two world wars. Millions of people paid a high price for what were avoidable catastrophes. Dangerous climate change is the avoidable catastrophe of the 21st Century and beyond. Future generations will pass a harsh judgement on a generation that looked at the evidence on climate change, understood the consequences and then continued on a path that consigned millions of the world's most vulnerable people to poverty and exposed future generations to the risk of ecological disaster.

http://hdr.undp.org/en/reports/global/hdr2007-2008/

The 2007 environmental facts

- 2 February IPCC WG1 report
  - Yes global warming is really happening
- 5 April IPCC WG2 report
  - Yes the effects are huge
- 4 May IPCC WG3 report
  - Yes emissions are continuing
- 23 October Global Carbon Project
  - Yes it is going even faster
- 25 October UNEP GEO4 report
  -Yes the situation is much worse with many problems
- 16 November IPCC Syntesis report
  - Yes we know for sure that we are to blame!
- 20 November UNFCCC report
  -Yes the rich countries is still increasing emissions
- 27 November UNDP report
  - Yes it is the rich countries that has caused the problems
- 15 December The BALI ”road map”.....

The facts as presented before Bali

FAST FACTS

United Nations
Development Programme

UNDP and Climate Change

UNDP and the Bali Conference

Bali, Indonesia, 3 -14 December 2007

The United Nations climate change conference in Bali, Indonesia, is a unique opportunity to put the world's poorest and most vulnerable people at the center of the fight against climate change.

They have a story to tell that until now has gone largely unheard and neglected in the corridors of power and as a result, the hope of the most vulnerable – those who walk with the lightest carbon footprint – is in danger of being stamped out. That is, unless words are followed by action – both at national and international levels.

Effective action is feasible, affordable and essential, as illustrated by the United Nations Development Programme's (UNDP) recently released 2007/2008 Human Development Report, *Fighting climate change: Human solidarity in a divided world.*

What is required is a change of attitude to one that ensures the needs of the most vulnerable are at the heart of the bold decisions required in Bali and the ensuing rounds of negotiations, without compromising efforts to get basic energy services to the 2.5 billion people around the world left in the dark, cooking over smoky stone fires.

Media queries: Ms. Niamh Collier-Smith,
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For more information visit: www.undp.org

Matters of Fact

- Nine planet Earths would be required to absorb all the world's carbon if every poor person had the same energy-rich lifestyle as an American or a Canadian.
- On average, 1 person out of 19 in a developing country will be hit by a climate disaster, compared to 1 out of 1,500 in an OECD country.
- The 19 million people living in New York have a deeper carbon footprint than the 766 million people living in the 50 least developed countries.
- Climate change creates lifetime traps: In Niger, a child born during a drought is 72 percent more likely to be stunted than a child born during a normal season.

http://hdr.undp.org/en/

Just another conference or ?

United Nations Framework Convention on Climate Change

United Nations Climate Change Conference - Bali, 3 - 14 December 2007

Delegates rise to applaud the decision to adopt the "Bali roadmap" for a future international agreement on climate change

So after all these alarming reports for “policy makers” during 2007 (and all others since 1972) what was the response by the world leaders in Bali?

”Nearly 200 nations agreed at U.N.-led talks in on Saturday to launch negotiations on a new pact to fight global warming after a reversal by the United States allowed a historic breakthrough. The Bali meeting approved a "roadmap" for two years of talks to adopt a new treaty to succeed beyond 2009.”

Thousands of delegates from almost 200 nations participated during two weeks in the Bali climate change conference. That is naturally impressive. The good news is that the largest CO_2 emitter USA finally after several years refusal decided to re-enter the international community. The bad news is that this required a compromise without any commitments to reduce emissions. The ”road map” is really the start of a two year discussions to reach an agreement. But we do not know which!

The Bali breaktrough?

UNITED NATIONS
NATIONS UNIES

FRAMEWORK CONVENTION ON CLIMATE CHANGE - Secretariat
CONVENTION - CADRE SUR LES CHANGEMENTS CLIMATIQUES - Secrétariat

For use of the media only.

PRESS RELEASE

UN Breakthrough on climate change reached in Bali

(Bali, 15 December 2007) – 187 countries meeting in Bali on Saturday agreed to launch negotiations towards a crucial and strengthened international climate change deal.

The decision includes a clear agenda for the key issues to be negotiated up to 2009. These are: action for adapting to the negative consequences of climate change, such as droughts and floods; ways to reduce greenhouse gas emissions; ways to widely deploy climate-friendly technologies and financing both adaptation and mitigation measures.

Concluding negotiations in 2009 will ensure that the new deal can enter into force by 2013, following the expiry of the first phase of the Kyoto Protocol.

Indonesian Environment Minister and President of the conference, Rachmat Witoelar said: "We now have a Bali roadmap, we have an agenda and we have a deadline." "But we also have a huge task ahead of us and time to reach agreement is extremely short, so we need to move quickly," he added.

The roadmap to where?

Recognizing that deep cuts in global emissions will be required to achieve the ultimate objective of the Convention and emphasizing the urgency[1] to address climate change as indicated in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change,

1. *Decides* to launch a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision at its fifteenth session, by addressing, inter alia:

(a) A shared vision for long-term cooperative action, including a long-term global goal for emission reductions, to achieve the ultimate objective of the Convention, in accordance with the provisions and principles of the Convention, in particular the principle of common but differentiated responsibilities and respective capabilities, and taking into account social and economic conditions and other relevant factors;

(b) Enhanced national and international action on mitigation of climate change, including, inter alia, consideration of:

(i) Measurable, reportable and verifiable nationally appropriate mitigation commitments or actions, including quantified emission limitation and reduction objectives, by all developed country Parties, while ensuring the comparability of efforts among them, taking into account differences in their national circumstances;

(ii) Measurable, reportable and verifiable nationally appropriate mitigation actions by developing country Parties in the context of sustainable development, supported by technology and enabled by financing and capacity-building;

(iii) Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries;

So what take us so long to understand?

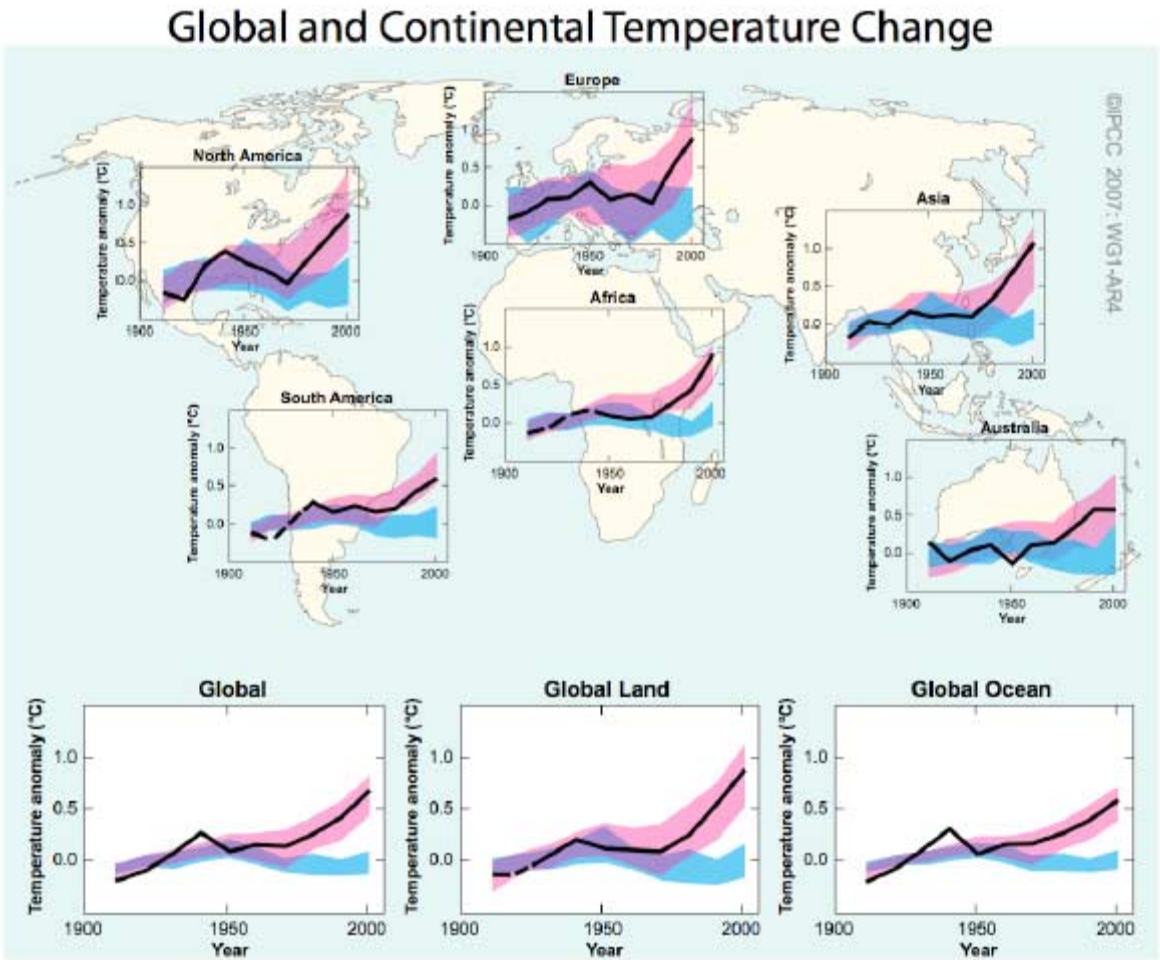
- Our society is based on fossil fuel (Coal, Oil, Gas)
- The more we drive and fly, heat and cool, shop and eat especially meat, the more coal, oil and gas we use
- Burning fossil fuel results in CO_2 emission

- The more we burn the more we pollute with CO_2 etc.
- The more we pollute the higher concentration of CO_2 in the air
- The higher CO_2 concentration = The higher temperature

- The higher temperature = The more ice that melts
- The more ice that melts = The higher the sea level
- The higher the sea level = The more people at risk

- The higher temperature = The more species at risk
- The more species at risk = The more are going extinct
- The more are going extinct = Even more are going extinct

The fact is that global warming is going even faster than we earlier thought



Blue is simulations witout human activities
Red is simulation with human activities
Black is real facts

Because we are emitting even more carbon dioxide but now also because of the positive feedback.

The warming of oceans and tropical forests reduce their ability to absorb CO_2 .

The melting of snow and ice reduces the reflection of light.

The melting of the tundra speed up emission of captured green house gases.

We have started a process we may not be able to stop!

IPCC February 2007 WG1 The Fourth Assesment Report

The fact is that the ice is melting in both the Arctic and Antarctic regions

From The Times

January 14, 2008

Antarctic is losing ice 'nearly twice as fast as ten years ago'

Antarctic ice sheet shrinking at faster rate

MARTIN MITTELSTAED
Globe and Mail Update
January 13, 2008 at 1:00 PM EST

One of the biggest worries about global warming has been its potential to affect the stability of the Antarctic ice sheet, a vast storehouse of frozen water that would inundate the world's coastal regions if it were to melt because of a warming climate.

The southern continent contains enough ice to raise ocean levels by about 60 metres, a deluge that would put every major coastal city in the world deep under water and uproot hundreds of millions of people.

The huge implications posed by the health of the ice sheet have prompted major scientific interest into whether it is growing, shrinking, or stable, with no clear consensus among researchers about its overall trend.

But a new study released today, based on some of the most extensive measurements to date of the continent's ice mass, presents a worrisome development: Antarctica's ice sheet is shrinking, at a rate that increased dramatically from 1996 to 2006.

Arctic warming at twice global rate

17:58 02 November 2004
NewScientist.com news service
Shaoni Bhattacharya

Global warming in the Arctic is happening now, warns the most comprehensive scientific report to date. The reports concludes that the northern ice cap is warming at twice the global rate and that this will lead to serious consequences for the planet.

These include substantial rises in sea level and an intensification of global warming via a positive feedback mechanism, although there may also be benefits. The four-year scientific assessment was conducted by an international team of 300 researchers for the Arctic Council, which is comprised of the eight nations - including the US - with Arctic territories.

"The projections for the future show a two to three times higher warming rate than for the rest of the world," says Pål Prestrud, vice-chairman of the steering committee for the Arctic Climate Impact Assessment (ACIA) report. "That will have consequences for the physical, ecological and human systems."

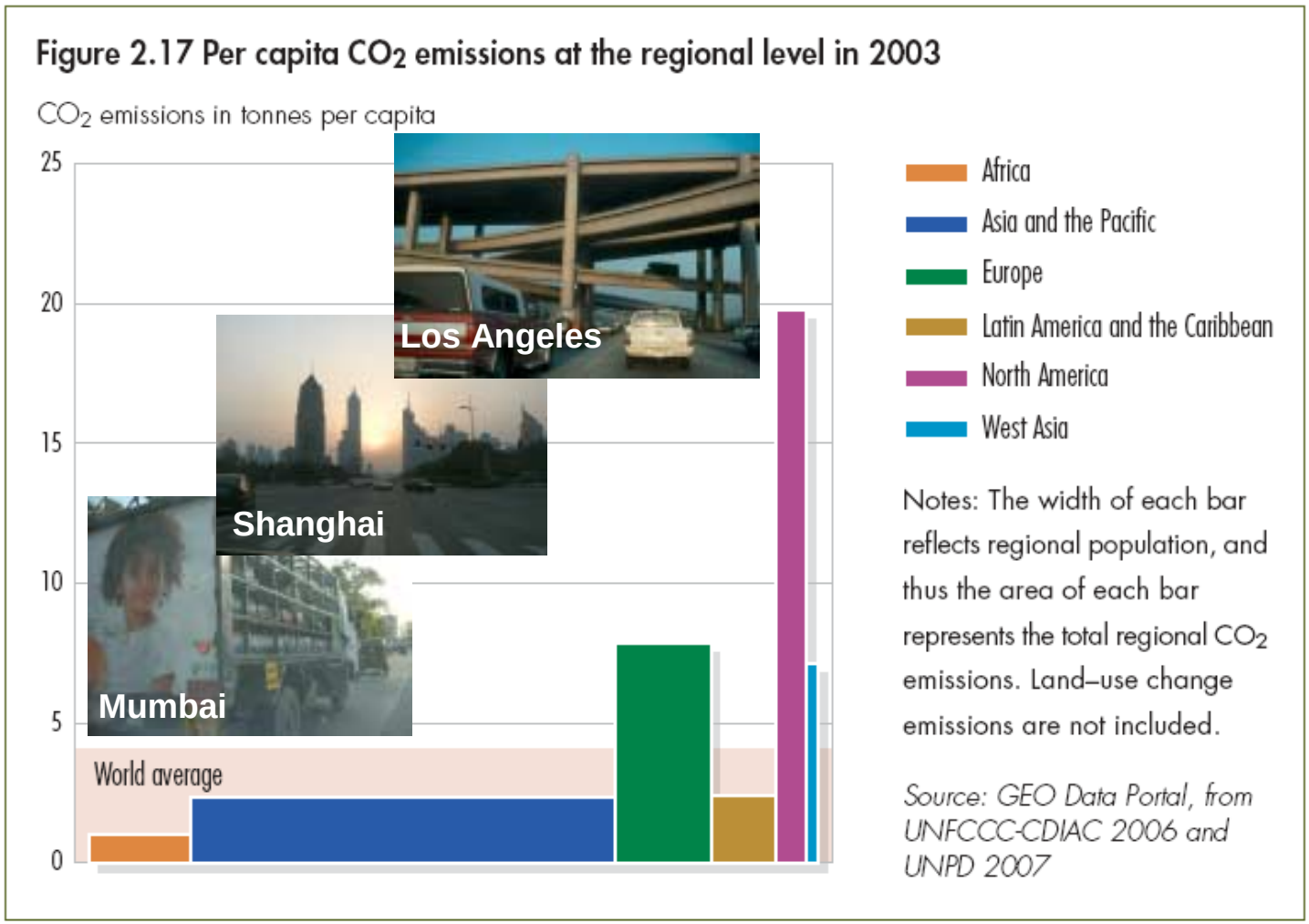
"The big melt has begun," says Jennifer Morgan, climate change director of the campaign group WWF. "Industrialised countries are carrying out an uncontrolled experiment to study the effects of climate change and the Arctic is their first guinea pig. This is unethical and wrong. They must cut emissions of CO_2 now."

So the sea level will increase with.....?

One of the biggest worries about global warming has been its potential to affect the stability of the Antarctic ice sheet, a vast storehouse of frozen water that would inundate the world's coastal regions if it were to melt because of a warming climate. The results of the research project, led by Dr. Eric Rignot, principal scientist for the Radar Science and Engineering Section at NASA's Jet Propulsion Laboratory's in Pasadena, Calif., appear in the current issue of Nature Geoscience. *"Over the time period of our survey, the ice sheet as a whole was certainly losing mass, and the mass loss increased by 75 per cent in 10 years,"* the study said.

Professor Jonathan Bamber, of the University of Bristol, was part of an international team of scientists that mapped changes in ice cover around 85 per cent of Antarctica's coast *:"What we have done is make some observations that show a very substantial and dramatic change in the breadth of the ice sheet,"* he said. *"It suggests changes in the climate system could have a rapid influence on the health of the Antarctic ice sheet. This is another observation that confirms the trend in what's happening around the world. We've seen the same thing in mountain glaciers, in Greenland, Patagonia and the same thing in Alaska. We are seeing the same thing everywhere we look."* Data from the study will help scientists to establish how much ice and snow will be lost over the next century. Loss of ice on Antarctica has the potential to be the biggest cause of rising sea levels in coming decades. If it all melted, which scientists consider highly unlikely by 2100, it is estimated that sea level would rise 61-65 meters, compared with 7 meters if all of Greenland's glaciers were to melt.

The fact is that it is the rich western countries that are responsible but now the ”emerging markets” follows



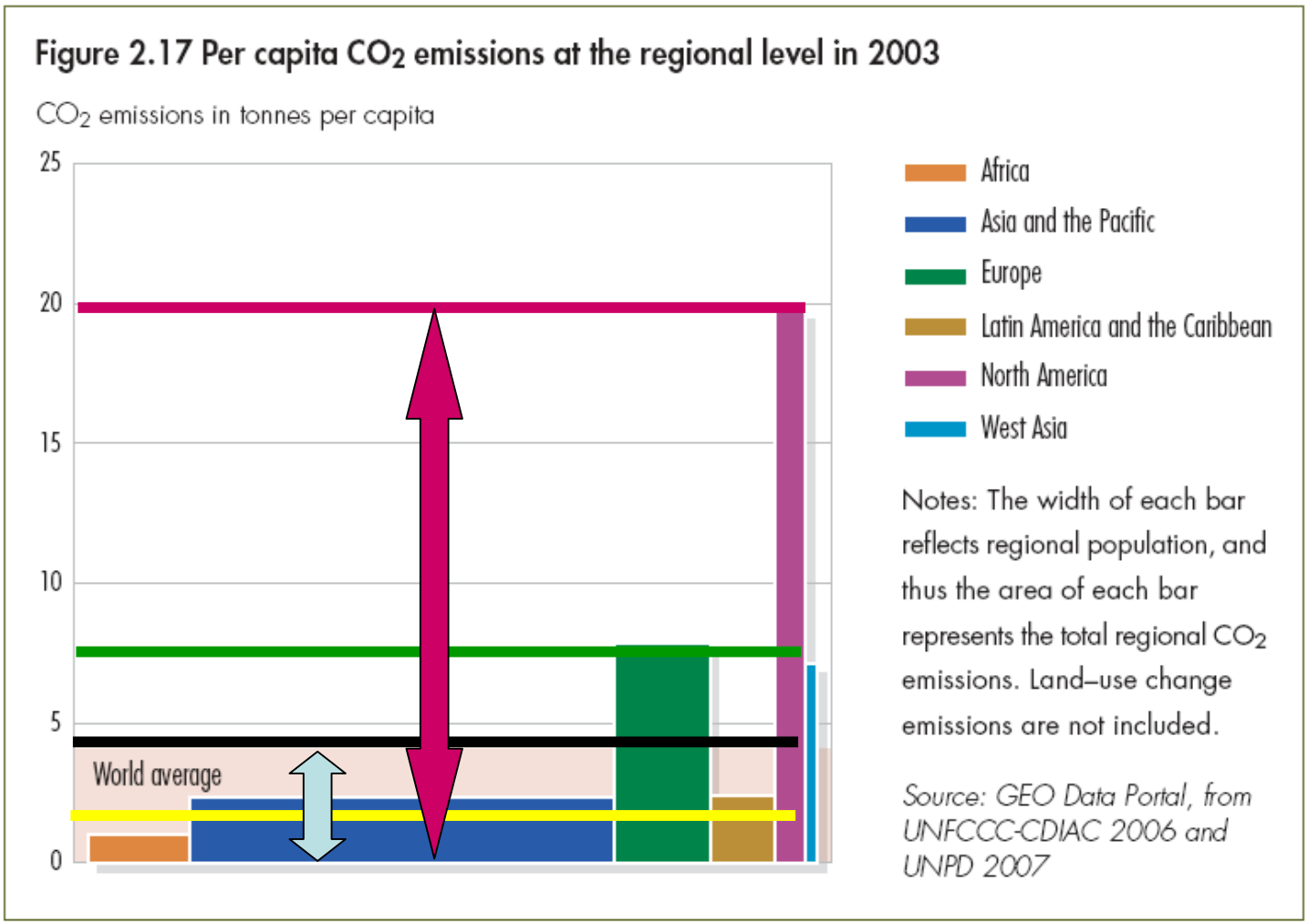
The fact is that it is the world can not sustain the American way of life
The bucket is already full!

USA + CA

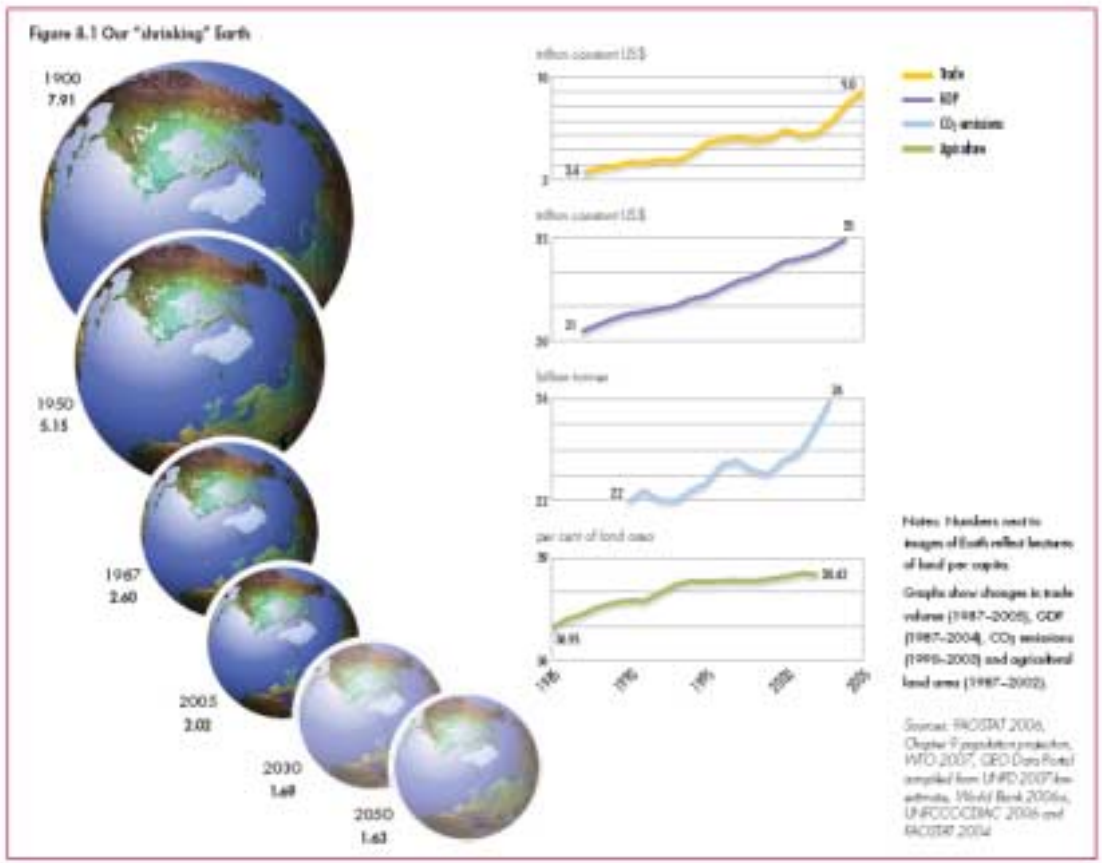
Europe

World average

Sustainable level



The fact is that the earth is shrinking
Our present life style with continuous growth is not sustainable
We have to change - Yesterday!



The head in the sand!

It is very, very alarming that we still have not understood how huge this environmental problem really is. That we have managed to disturb the very ecological balance of Nature and that it will take thousands of years to repair.

And it is even more disturbing that we have not understood that it is our life style and economic model with continuous growth that is the reason. Are we totally blind for all the alarming facts. Or do we just hide our head in the sand and repeat our mantra - consume more for this good for growth.

Even during the Bali “negotiations” we failed to draw that very elementary and necessary conclusion. The disaster is already happening and it is our fault. Instead the absolute largest environmental “terrorist” of all times, USA who is the main responsible for this managed once again to remove all commitments to real and urgent actions. And the international media was silent.

So now the rest of the world are following our “good example”. China and India is part of the global family and is rapidly increasing their emissions so they can produce all the consumer goods that USA and EU now is importing. Indonesia and Brazil is burning rainforest so they can export Soya and palm oil or produce more meat for our increasing appetite.