

# The sixty years crisis

## A short history of a huge problem



### Part 1 The Crisis Compiled by Carl Ohlen

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



# Quotes from the UN Human Development Report 2007/2008

We are recklessly mismanaging our ecological interdependence. Our generation is running up an unsustainable ecological debt that future generations will inherit

By the end of the 21<sup>st</sup> Century, the spectre of catastrophic ecological impacts could have moved from the bounds of the possible to the probable

Looking ahead, the scenarios for future energy use and emissions point unmistakably towards a dangerous climate future, unless the world changes course

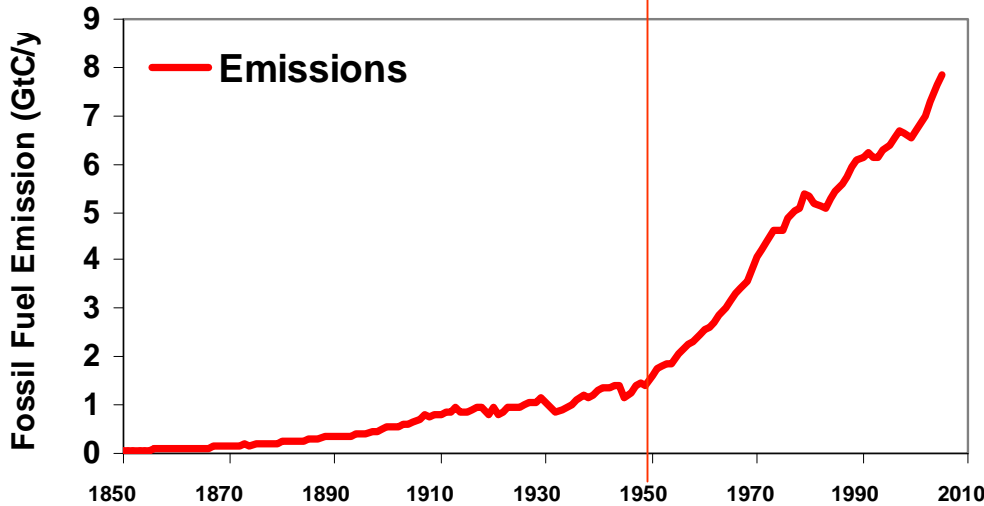
Current investment patterns are putting in place a carbon intensive energy infrastructure, with coal playing a dominant role

There could be no clearer demonstration than climate that economic wealth creation is not the same thing as human progress

Avoiding the unprecedented threats posed by dangerous climate change will require an unparalleled collective exercise in international cooperation

# The Black Ages

Burning of fossil fuel (coal, oil and gas) results in pollution including the emission of carbon dioxide (CO<sub>2</sub>). Some of this is absorbed by nature but about half will stay in the atmosphere for a very long time. This means that the concentration of CO<sub>2</sub> will continuous increase and this will create the “green house effect” with global warming.



1990 - 1999: 1.3% /y Increase

2000 - 2006: 3.3% /y Increase

The emission also follows the phases of industrialization. So when the fossil fuel consumption skyrocketed after the second world war so did the CO<sub>2</sub> emission. We were building a new world based on the black gold – OIL used in our cars, airplanes, plastics, fertilizers etc. We entered the black ages.

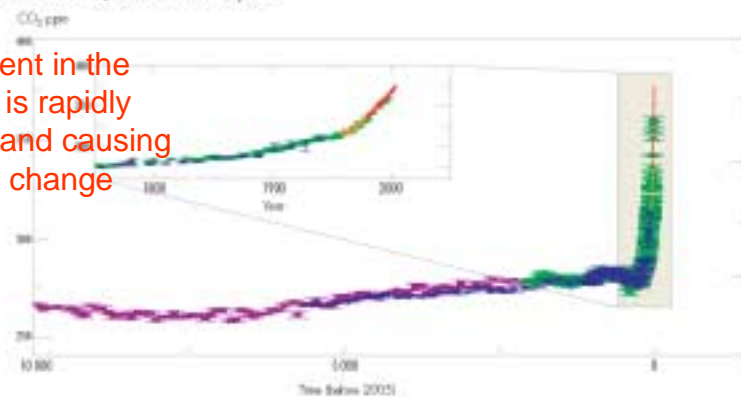
And although we knew about this we continued to INCREASE consumption in the new Millennium.

Figure 2.13 Atmospheric concentrations of CO<sub>2</sub> over the last 10 000 years

CO<sub>2</sub> content in the atmosphere is rapidly increasing and causing the climate change

Fluctuations in CO<sub>2</sub> are shown from ice cores (symbols with different colors for different studies) and atmospheric samples (red line).

Source: IPCC 2007



Last update: 20 October 2007

<http://www.globalcarbonproject.org/>

There is evidence of unprecedented environmental change at global and regional levels:

- The Earth's surface is warming. This 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. Other major impacts, include changes in water availability, land degradation, food security, and loss of biodiversity. The projected increase in frequency and intensity of heat waves, storms, floods and droughts would dramatically affect many millions of people including those in small island states and Polar regions. While in the past century the global average temperature increased by 0.74°C, the best estimate of the Intergovernmental Panel on Climate Change (IPCC) for additional warming over the current century is projected to be from 1.8 to 4.0°C. Climate change may further exacerbate the loss of biodiversity and degradation of land, soil, forest, freshwater and oceans.

## The Great Flood?

The burning of the fossil fuel that has been stored on earth since 500 million years is now rapidly changing the climate on earth. The ice that has been kept for thousands of years is melting and the level of the ocean will increase. But the main problem is that we now are destabilizing a very delicate system that Gaia – or living earth has created during thousand, millions even billions of years. And this will certainly affect life on earth in a dramatic way since we are basically recreating the Jurassic park conditions.

What the GEO4 report say is that it is the poor regions in Africa and Asia that will suffer the most. Those who has not caused the crisis. We have!



<http://www.unep.org/geo/geo4/media/>

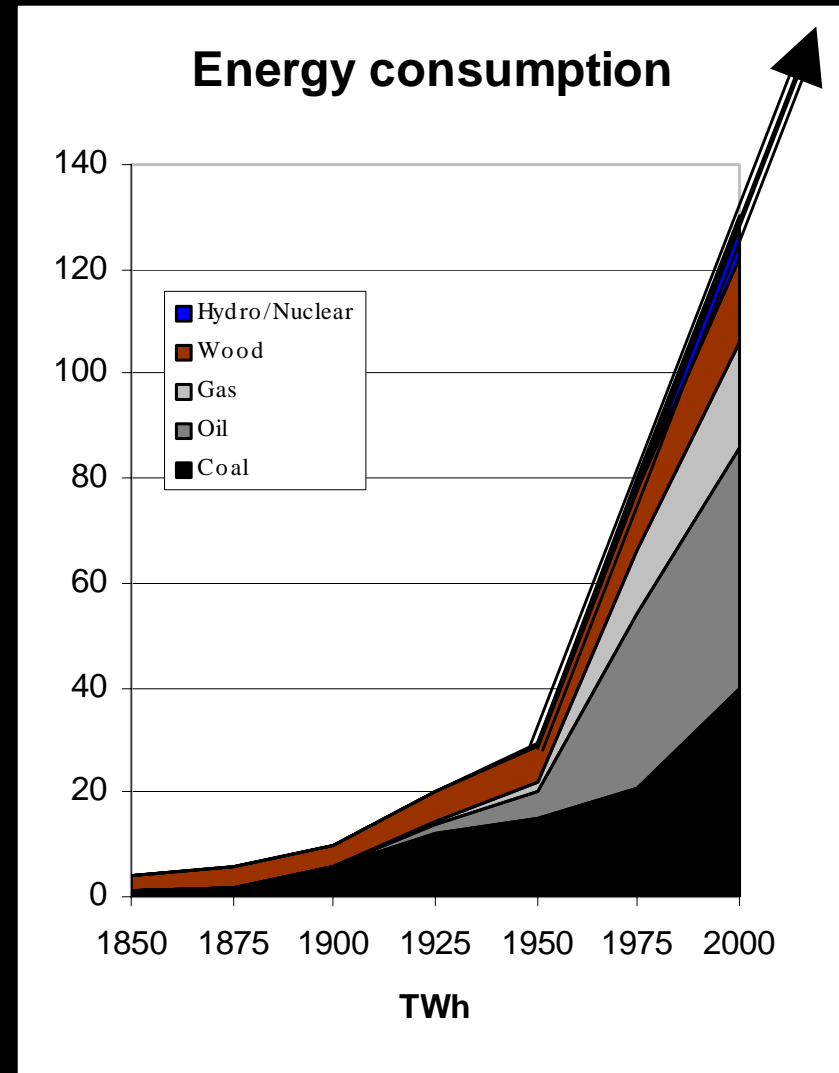


# A mental blackout

The black fossil ages started by coal and steam engine in England together with what we call the industrial revolution in the 19th century. It accelerated by oil and car in United States in the beginning of the 20th century. After the second world war Europe and Japan joined the party and after the end of the cold war the fossil burning went global.

So what happened is seen in the diagram. The consumption of energy, burning of fossil fuel and production of pollution skyrocketed. I am an engineer. I even work with energy and environment. So for me this is so self evident. It is naturally not possible to continue such a “development” for ever. And this is not only for energy and fossil fuel. It is the same curve for basically everything.

We are consuming Earth. This is what is most difficult to understand – that we have not reacted. Just continued. So the real crisis is much deeper. It is in our minds.



# The UNEP GEO4 report 25 October 2007



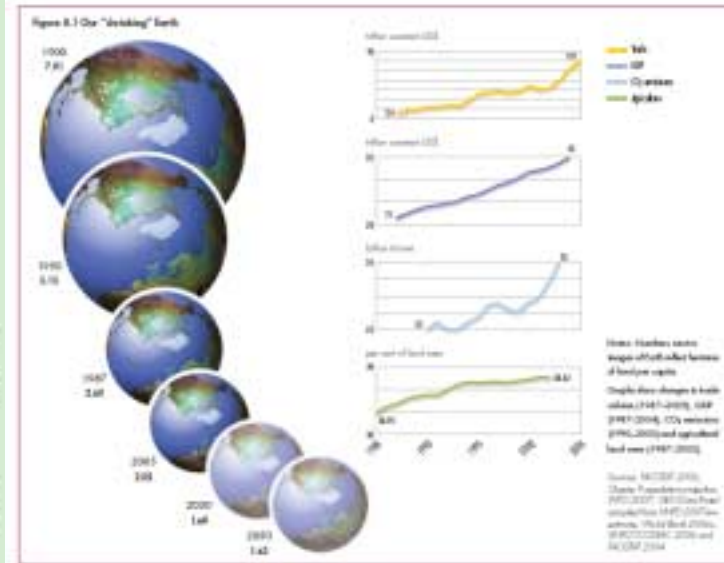
Embargoed until after 11:30am New York time, 25 October 2007.

## Global Press Release

### Planet's Tougher Problems Persist, UN Report Warns

Nairobi/New York, 25 October: The United Nations Environment Programme says that major threats to the planet such as climate change, the rate of extinction of species, and the challenge of feeding a growing population are among the many that remain unresolved, and all of them put humanity at risk.

The warning comes in UNEP's Global Environment Outlook: environment for development (GEO-4) report published 20 years after the World Commission on Environment and Development (the Brundtland Commission) produced its seminal report, Our Common Future.



The first United Nation conference on the environment was held 1972 in Stockholm. This was 35 years ago. This year (2007) several alarming reports have been published. All basically with the same conclusion. We are burning up our planet. Al Gore and the IPCC (Intergovernmental Panel on Climate Change) have got the Nobel peace price. This is very positive. Finally after 35 years we are starting to observe what is happening to our living planet that James Lovelock call "Gaia". But we have still not understood.

Because first of all the damages are much worse than we can grasp. Secondly WE have caused these damages. WE = the minority of human kind living in the rich western world during one single generation. You and me. We have been and are consuming our planet. If we are going to "save the world" we need to drastically change ourselves in every aspect – NOW!



Nairobi/New York, 25 October, 2007: The United Nations Environmental Program Programme says that major threats to the planet such as climate change, the rate of extinction of species, and the challenge of feeding a growing population are among the many that remain unresolved, and all of them put humanity at risk.....  
...."Failure to address these persistent problems, UNEP says, may undo all the achievements so far on the simpler issues, and may threaten humanity's survival. But it insists: "The objective is not to present a dark and gloomy scenario, but an urgent call for action."

.... GEO-4 recalls the Brundtland Commission's statement that the world does not face separate crises - the "environmental crisis", "development crisis", and "energy crisis" are all one. This crisis includes not just climate change, extinction rates and hunger, but other problems driven by growing human numbers, the rising consumption of the rich and the desperation of the poor.....

..... GEO-4 says climate change is a "global priority", demanding political will and leadership. Yet it finds "a remarkable lack of urgency", and a "woefully inadequate" global response.....

..... Several highly-polluting countries have refused to ratify the Kyoto Protocol. GEO-4 says: "... some industrial sectors that were unfavourable to the... Protocol managed successfully to undermine the political will to ratify it." It says: "Fundamental changes in social and economic structures, including lifestyle changes, are crucial if rapid progress is to be achieved."

**Atmosphere:** There is now visible and unequivocal evidence of the impacts of climate change, and consensus that human activities have been decisive in this change....Ice cores show that the levels of carbon dioxide (CO<sub>2</sub>) and methane are now far outside their ranges of natural variability over the last 500 000 years: the Earth's climate has entered a state unparalleled in recent prehistory. ....Present trends do not favour greenhouse gas stabilisation. Aviation saw an 80 per cent increase in miles flown between 1990 and 2003, while shipping rose from 4 billion tonnes of goods loaded in 1990 to 7.1 billion tonnes in 2005: each sector makes huge and increasing energy demands.... Some greenhouse gases may persist in the atmosphere for up to 50 000 years.

**Biodiversity:** Current biodiversity changes are the fastest in human history. Species are becoming extinct a hundred times faster than the rate shown in the fossil record .....over 30 per cent of amphibians, 23 per cent of mammals and 12 per cent of birds are threatened.....About 60 per cent of the ecosystem services that have been assessed are degraded or used unsustainably....A sixth major extinction is under way, this time caused by human behaviour.

**The Unequal World:** Consumption has been growing faster than population, but unequally: the total annual income of nearly 1 billion people, the population of the richest countries, is almost 15 times that of the 2.3 billion people in the poorest countries. There are fewer resources to share: the amount of land per capita is about a quarter of what it was a century ago, and is expected to fall to about one-fifth of the 1900 level by 2050.

- **More than 2 million people globally die prematurely every year due to outdoor and indoor air pollution.**
- **The “hole” in the stratospheric ozone layer over the Antarctic – the layer that protects people from harmful ultraviolet radiation – is now the largest it has ever been.**  
salinity, desertification, and the disruption of biological cycles. Poor people suffer disproportionately from the effects of land degradation, especially in the drylands, which support some 2 billion people, 90 per cent of whom live in developing countries.
- **The per capita availability of freshwater is declining globally, and contaminated water remains the greatest single environmental cause of human sickness and death.** If present
- **Unsustainable land use and climate change are driving land degradation,** including soil erosion, nutrient depletion, water scarcity,
- **Aquatic ecosystems continue to be heavily exploited, putting at risk sustainability of food supplies and biodiversity.** Global marine and freshwater fish catches show large-scale declines, caused mostly by persistent overfishing.
- **The great majority of well-studied species are declining in distribution, abundance or both.**

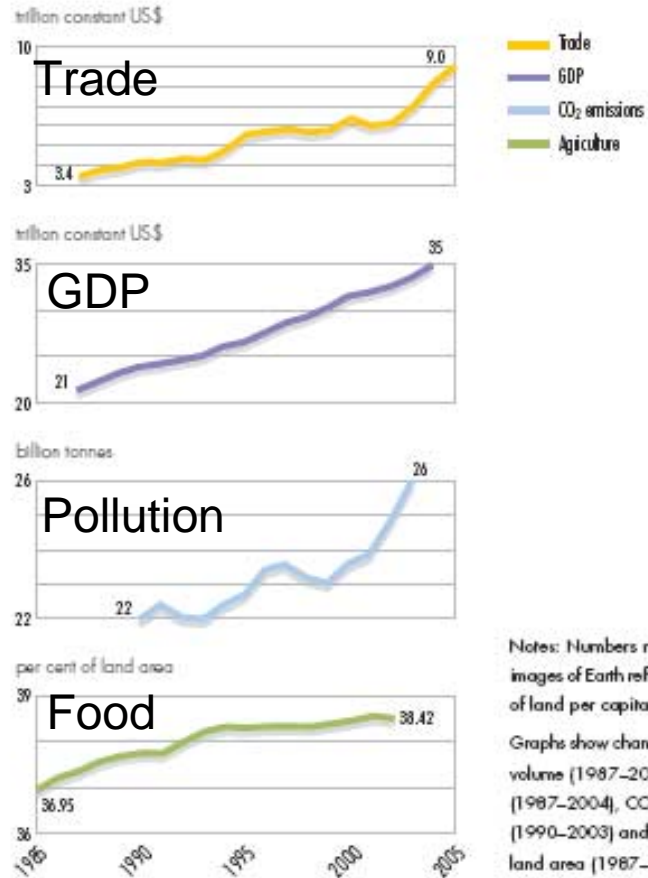
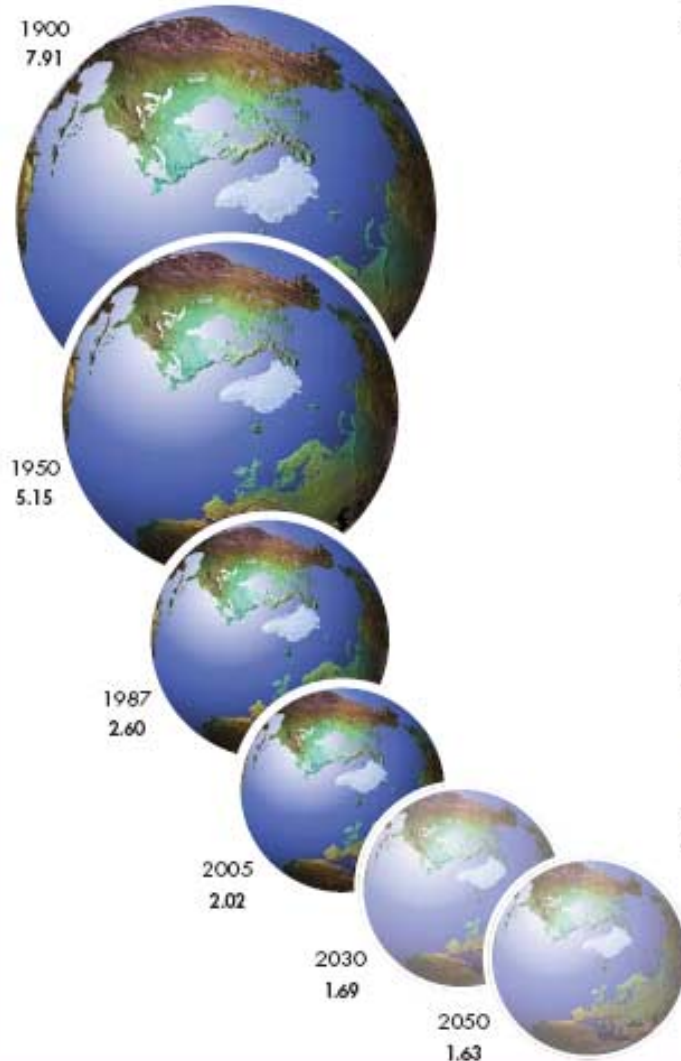
# The Huge Disaster

But carbon dioxide and global warming is only ONE of the consequences of our present way of living. More waste is polluting our planet, the Ozone hole is larger than ever. Land degradation is accelerating. We are “harvesting” too much fish from our oceans. We are running out of fresh water. Species are going extinct in an unprecedented pace since the age of the dinosaurs. And still a large part of the world population is starving. We are the dinosaurs!



# The runaway "development"

Figure 8.1 Our "shrinking" Earth



Notes: Numbers next to images of Earth reflect hectares of land per capita.

Graphs show changes in trade volume (1987–2005), GDP (1987–2004), CO<sub>2</sub> emissions (1990–2003) and agricultural land area (1987–2002).

Sources: FAOSTAT 2006, Chapter 9 population projection, WTO 2007, GEO Data Portal compiled from UNPD 2007-low estimate, World Bank 2006a, UNFCCC/CDIAC 2006 and FAOSTAT 2004.

# A larger but still unequal world

After the oil crisis and the fall of Soviet Union the political and economical world order changed significantly. We entered a new period of what we called “globalization” with the only goal to grow trade and consumption. And so we did. Our income measured as GDP, Gross Domestic Product did grow. But most of all it grew for the already rich. All ideologies were dead except one. To “make money” – millions and billions of money. The world became a mixture of a Monopoly game, a Las Vegas casino and a Wal-Mart supermarket. More people moved to the cities and bought more cars. So transports and carbon dioxide emission skyrocketed. The human pressure on earth grew faster than population. But the wealth continued to be uneven distributed. And so did pollution.

## **The Unequal World**

The world has changed radically since 1987, economically, socially and politically. Population has increased by almost 34 per cent, trade is almost three times greater, and average income per head has gone up by about 40 per cent.

Consumption has been growing faster than population, but unequally: the total annual income of nearly 1 billion people, the population of the richest countries, is almost 15 times that of the 2.3 billion people in the poorest countries.

There are fewer resources to share: the amount of land per capita is about a quarter of what it was a century ago, and is expected to fall to about one-fifth of the 1900 level by 2050.

Urbanization is a significant pressure: by 2025 coastal populations alone are expected to reach six billion. The year 2007 is the first in human history when more than half of all people live in cities.



# A larger but still unequal pollution

1960 the rich countries in North America and Europe together with Japan produced more than 80% of all pollution including carbon dioxide – but had less than 20% of the world population.

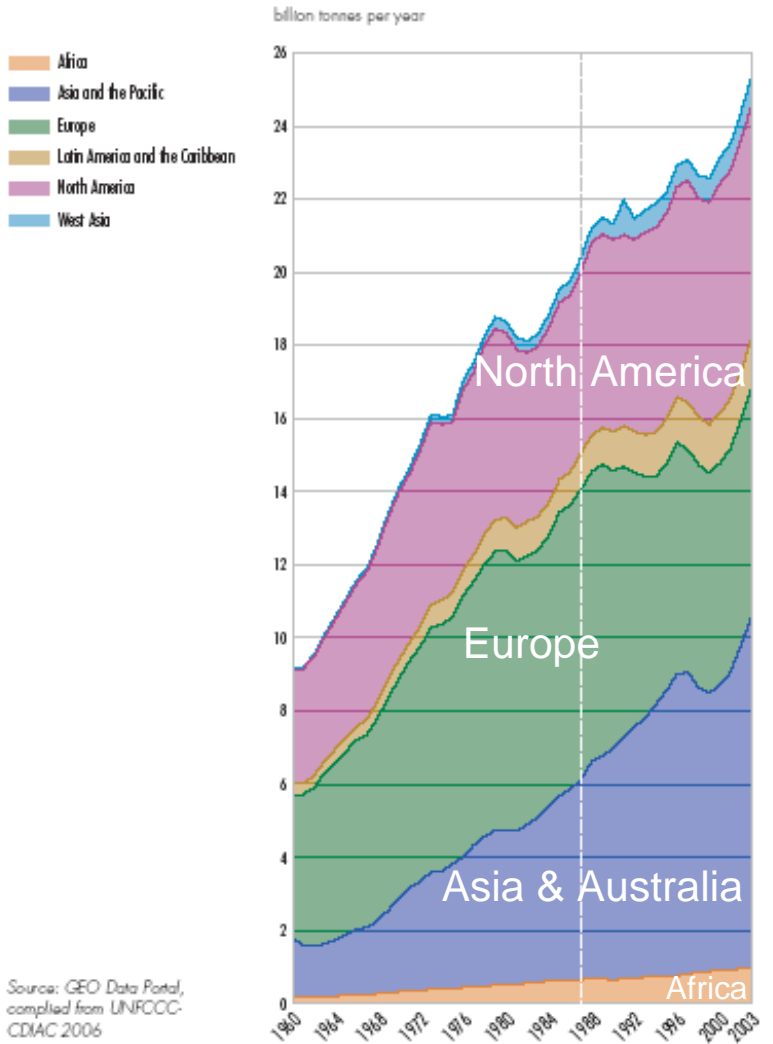
The pollution has continued to grow among the rich nations especially in USA and Canada as well as the major West European countries. What reduces the Europe growth in the diagram to the left is the collapse of the Soviet block.

But the new growth area is Asia and Australia. Starting with Japan we saw the Asian “tigers” evolving with Taiwan, South Korea, Singapore and Hong Kong as the first wave. Then Malaysia, China and India in the second wave.

All building their growth model in a similar way. First use cheap labour to produce and export of consumer goods to the rich western markets. Then build the own upper and middle classes. And finally maybe reach the Japanese level.

So what is wrong with that?

Figure 2.16 CO<sub>2</sub> emissions from fossil fuels by region

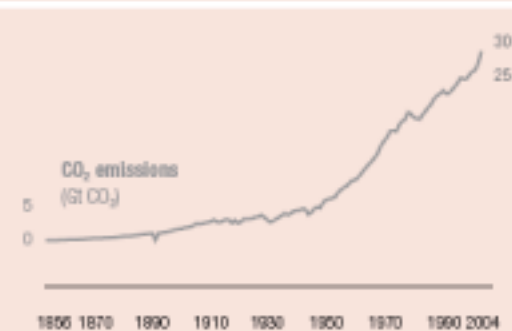
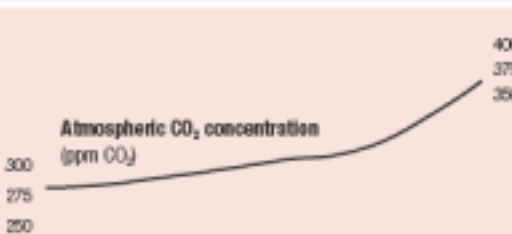




# This is wrong

Our economic model is based on continuous growth. Governments, institutions, corporations, manufacturers, banks and media has one thing in common. To stimulate more consumption of “anything” – excess consumption. When the new “liberal” globalization religion took off as the only goal, pollution also took off.

Figure 1.1 Rising CO<sub>2</sub> emissions are pushing up stocks and increasing temperature

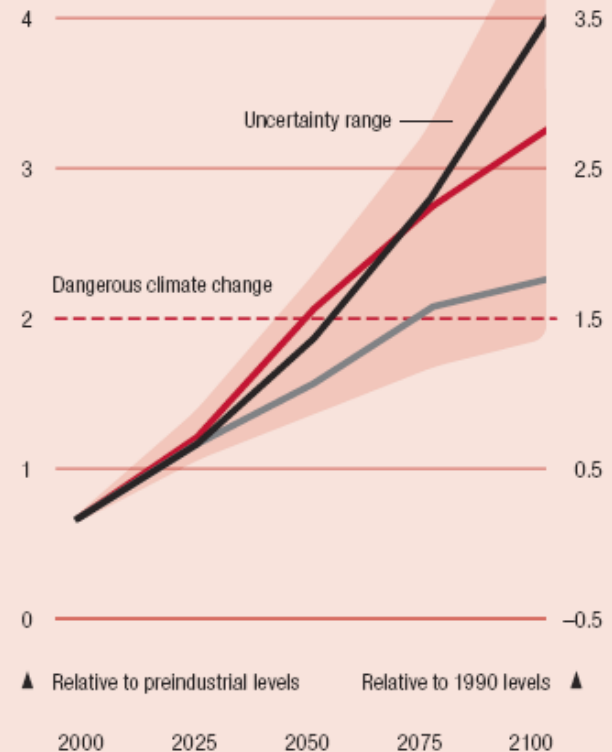


Source: CDIAC 2007; IPCC 2007a

- More excess consumption
- More use of raw materials
- More transportation
- More pollution of nature
- Offsetting natural balance
- Global warming etc.
- Severe climate change
- Starvation & deceases
- Migration, chaos & wars
- Mass extinction of species

Figure 1.2 Global temperature forecast: three IPCC scenarios

Mean surface warming projections (°C)





# The biblical mass extinction

## THE “SIXTH WAVE”

The rapid loss of species that we are witnessing today is estimated by some experts to be between 100 and 1,000 times higher than the “background” or expected natural extinction rate (this is a highly conservative estimate: some studies estimate current extinction rates as 1,000-11,000 times background rates). Unlike the mass-extinction events of geological history, the current extinction phenomenon is one for which a single species - ours - appears to be almost wholly responsible. Such a deteriorating situation is being referred to as “the sixth extinction crisis”, after the five known extinction waves in the Ordovician, Devonian, Permian, Triassic and Cretaceous Periods.

## PROFILES IN RED

The *2004 IUCN Red List of Threatened Species* tells us that the global extinction crisis is as bad, or worse, than we believed.

A total of 15,589 species of plants and animals are known to face a high risk of extinction in the near future, in almost all cases as a result of human activities. This includes 32% (one in three) of amphibian species, 24% (one in four) of mammal species, 12% (one in eight) of bird species, 25% (one in four) of conifers and 52% of cycads (an ancient group of plants).

# The lonely planet

## By 2050 Warming to Doom Million Species, Study Says

John Roach  
for National Geographic News  
Updated July 12, 2004

By 2050, rising temperatures exacerbated by human-induced belches of carbon dioxide and other greenhouse gases could send more than a million of Earth's land-dwelling plants and animals down the road to extinction, according to a recent study.

"Climate change now represents at least as great a threat to the number of species surviving on Earth as habitat-destruction and modification," said Chris Thomas, a conservation biologist at the University of Leeds in the United Kingdom.

### Study Results

According to the researchers' collective results, the predicted range of climate change by 2050 will place 15 to 35 percent of the 1,103 species studied at risk of extinction. The numbers are expected to hold up when extrapolated globally, potentially dooming more than a million species.

"These are first-pass estimates, but they put the problem in the right ballpark ... I expect more detailed studies to refine these numbers and to add data for additional regions, but not to change the general import of these findings," said Hannah.

Writing in an accompanying commentary to the study in *Nature*, J. Alan Pounds of the Monteverde Cloud Forest Reserve in Costa Rica, and Robert Puschendorf, a biologist at the University of Costa Rica, say these estimates "might be optimistic."

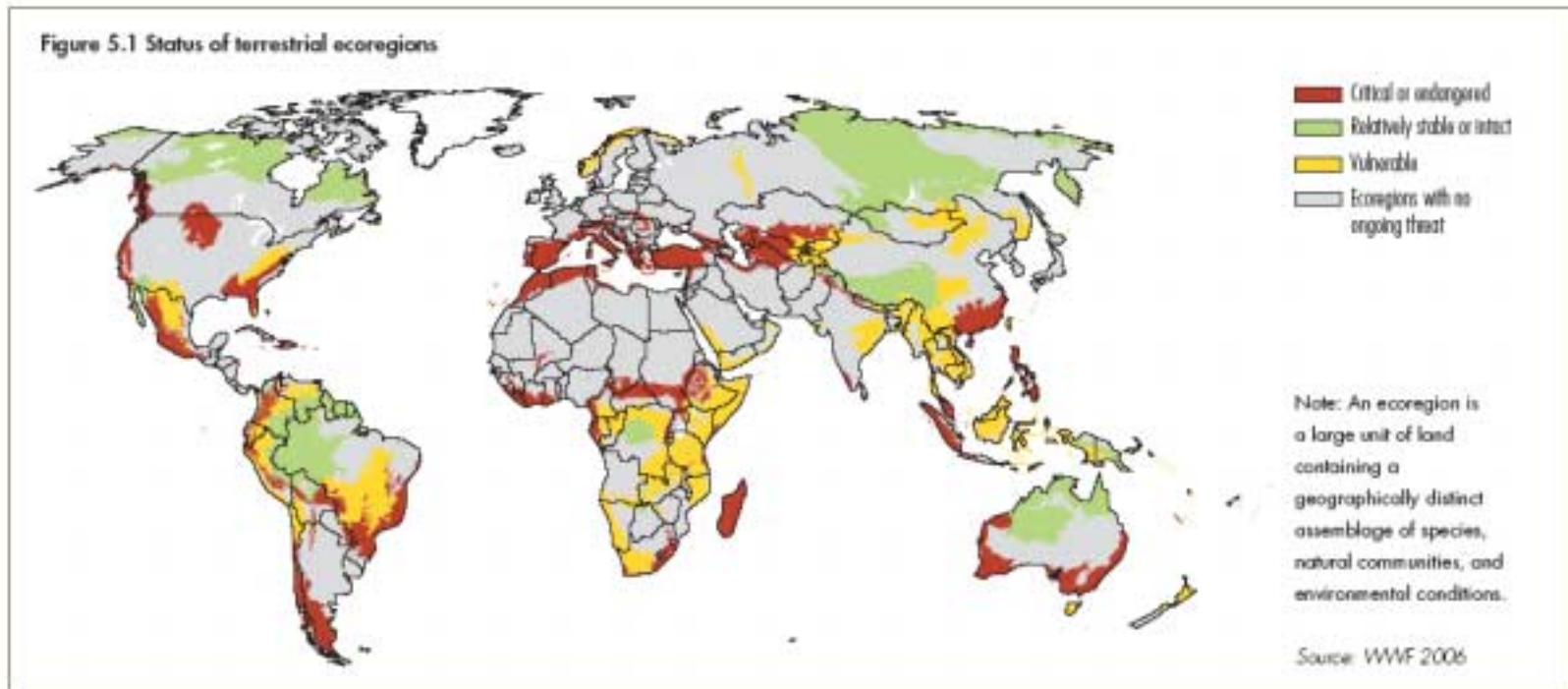
As global warming interacts with other factors such as habitat-destruction, invasive species, and the build up of carbon dioxide in the landscape, the risk of extinction increases even further, they say.

We have had mass extinctions before. The most well known is the extinction of the dinosaurs. There is also a natural evolution when species disappears and are replaced by others. Finally man has caused local extinctions in the past as hunters and recently with the white man's conquer of the American continent.

But what is happening now is unique and very, very scaring. A global Easter Island. Historians do not know what the inhabitants of this little island thought of when the cut down their last tree. But we know the result – war and destruction.

We can not survive without the Nature. We are a very small part in the evolution and the web of life. But Nature can survive without us. So can evolution of life.

# The endangered planet



## Box 5.3 The sixth extinction

All available evidence points to a sixth major extinction event currently underway. Unlike the previous five events, which were due to natural disasters and planetary change (see Box 5.1), the current loss of biodiversity is mainly due to human activities. The current rapid rates of habitat and landscape changes and modifications, increased rates of species extinction, and the reduction in genetic variability due to population declines, are having impacts on natural processes and on the needs of people. The details of many of these impacts remain uncertain, but their major negative influences can be foreseen and avoided or mitigated.

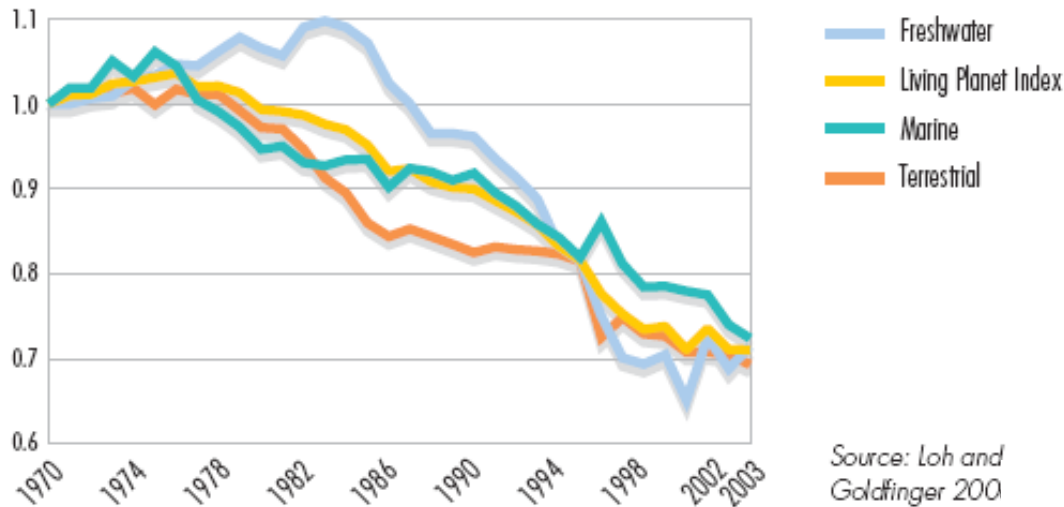


# The degeneration

Figure 5.2 Examples of state, pressure and response indicators that have been adopted by the Convention on Biological Diversity to measure progress towards the 2010 target

## a) Living Planet Index

Index (1970=1.0)



This monoculture also affect nature. Our crops and agricultural methods are uniformed and centralized. We are not only losing species for ever but we are interrupting the natural evolution. Instead we are introducing genetically engineered super species. And we are doing all this during one human generation without any clue about the long term effects.

Never before in human history has one culture been so dominating as the Anglo-American culture. Our technology, economy, political structure, language, what we eat, wear, watch and even think is being uniformed in an unprecedented way.

Over the past two decades, many of the world's most important agricultural crops have lost genetic diversity due to changes in agricultural practices (Heal and others 2002). The continued loss of genetic diversity of such crops may have major implications on food security (see Agriculture section). The amount or rate of loss of genetic diversity is poorly known, but inferences can be made from documented extinctions and population declines, which suggest that substantial genetic loss is occurring (IUCN 2006).



# Time is running out

Climate change provides a potent reminder of the one thing that we share in common. It is called planet Earth. All nations and all people share the same atmosphere

How the world deals with climate change today will have a direct bearing on the human development prospects of a large section of humanity. Failure will consign the poorest 40 percent of the world's population—some 2.6 billion people—to a future of diminished opportunity. It will exacerbate deep inequalities within countries. And it will undermine efforts to build a more inclusive pattern of globalization, reinforcing the vast disparities between the 'haves' and the 'have nots'.

## The case for action

If the world acts now it will be possible—just possible—to keep 21<sup>st</sup> Century global temperature increases within a 2°C threshold above preindustrial levels. Achieving this future will require a high level of leadership and unparalleled international cooperation.

# A choice between humanity and chaos

The values that inspired the drafters of the Universal Declaration of Human Rights provide a powerful point of reference. That document was a response to the political failure that gave rise to extreme nationalism, fascism and world war. It established a set of entitlements and rights—civil, political, cultural, social and economic—for “all members of the human family”. The values that inspired the Universal Declaration were seen as a code of conduct for human affairs that would prevent the “disregard and contempt for human rights that have resulted in barbarous acts which have outraged the conscience of mankind”.

The real choice facing political leaders and people today is between universal human values, on the one side, and participating in the widespread and systematic violation of human rights on the other

The drafters of the Universal Declaration of Human Rights were looking back at a human tragedy, the second world war, that had already happened. Climate change is different. It is a human tragedy in the making. Allowing that tragedy to evolve would be a political failure that merits the description of an “outrage to the conscience of mankind”. It would represent a systematic violation of the human rights of the world’s poor and future generations and a step back from universal values.

# The road to hell, or?

By the end of the 21<sup>st</sup> Century, the spectre of catastrophic ecological impacts could have moved from the bounds of the possible to the probable

There is no hard-and-fast line separating 'dangerous' from 'safe' climate change. Many of the world's poorest people and most fragile ecological systems are already being forced to adapt to dangerous climate change. However, beyond a threshold of 2°C the risk of large-scale human development setbacks and irreversible ecological catastrophes will increase sharply.

Business-as-usual trajectories will take the world well beyond that threshold. To have a 50:50 chance of limiting temperature increase to 2°C above preindustrial levels will require stabilization of greenhouse gases at concentrations of around 450ppm CO<sub>2</sub>e. Stabilization at 550ppm CO<sub>2</sub>e would raise the probability of breaching the threshold to 80 percent. In their personal lives, few people would knowingly undertake activities with a serious injury risk of this order of magnitude. Yet as a global community, we are taking far greater risks with planet Earth. Scenarios for the 21<sup>st</sup> Century point to potential stabilization points in excess of 750ppm CO<sub>2</sub>e, with possible temperature changes in excess of 5°C.

# So who is to blame?

The UN report makes for the first time this remarkable conclusion. It is our *“human activities in an increasingly globalized, industrialized and interconnected world”* that has caused this.

And that it is the 20% of the world population living in the rich western countries; USA, Canada, Europe, Japan and Australia that still are responsible for almost half of the green house emissions.

And if we include our history this responsibility is even larger.

These unprecedented changes are due to human activities in an increasingly globalized, industrialized and interconnected world, driven by expanding flows of goods, services, capital, people, technologies, information, ideas and labour, even affecting isolated populations. The responsibility for global environmental pressures is not equally distributed throughout the world. For instance, in 2004, United Nations Framework Convention on Climate Change Annex 1 countries with 20 per cent of world population produced 57 per cent of gross world product based on purchasing power parity and accounted for 46 per cent of greenhouse gas emissions.

## So who should “fix it”?

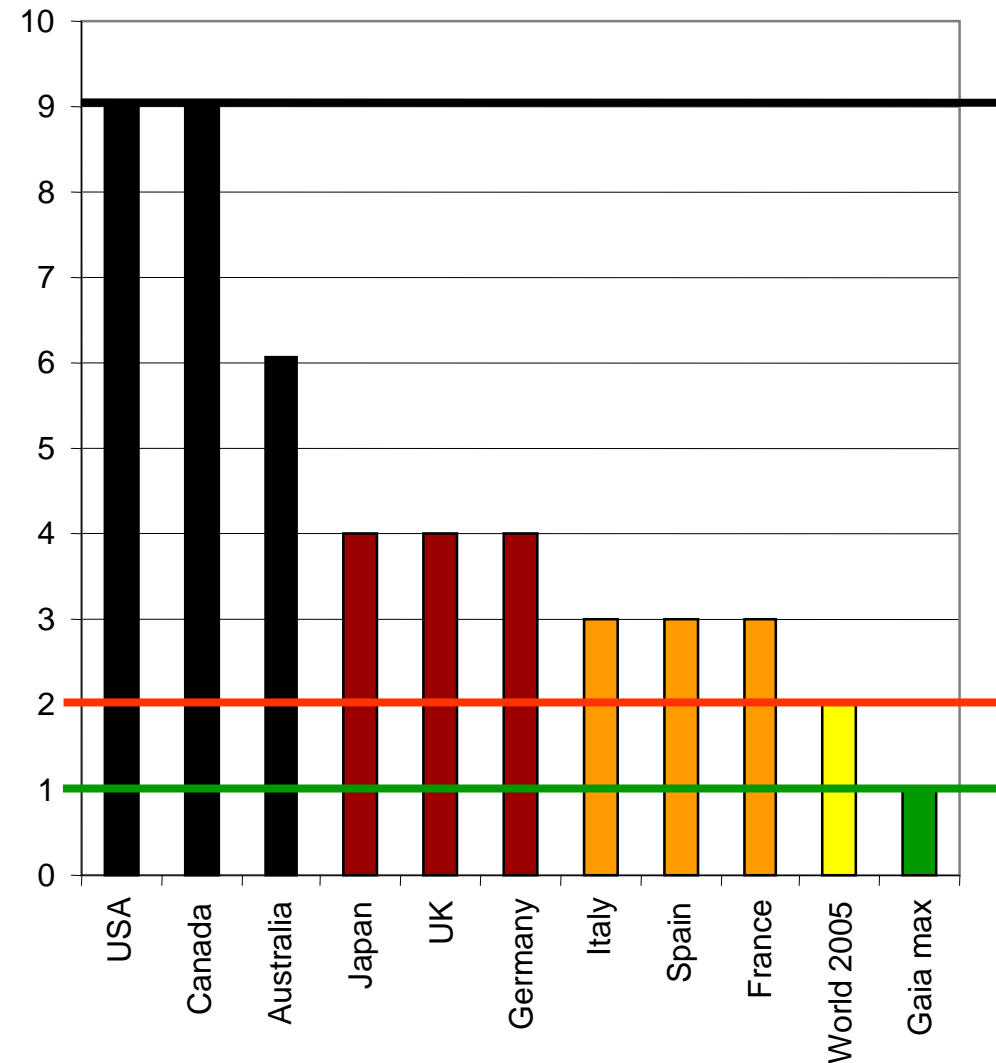
# The consequences of our life style

The present situation is that we are consuming two times the maximum capacity of Gaia, our living planet.

USA and Canada are consuming nine (9) times measured in per capita.

Imagine if Africa, China, India and South America would copy this unsustainable life style.....when we already are consuming two planets.

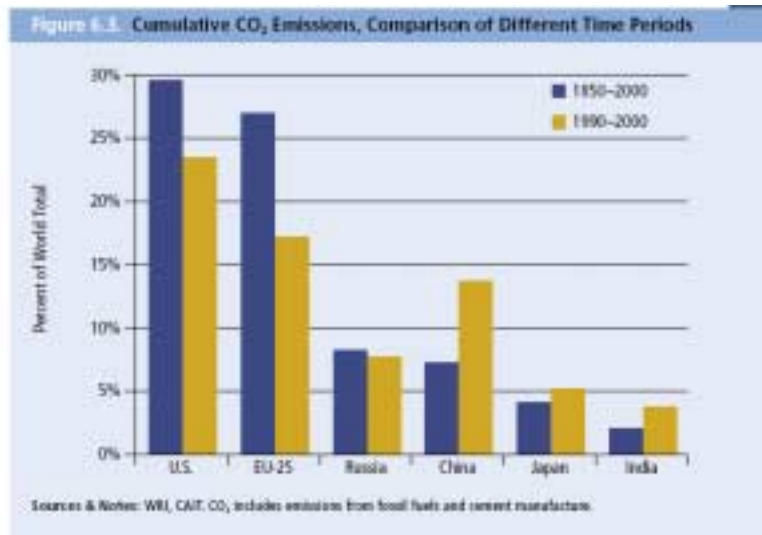
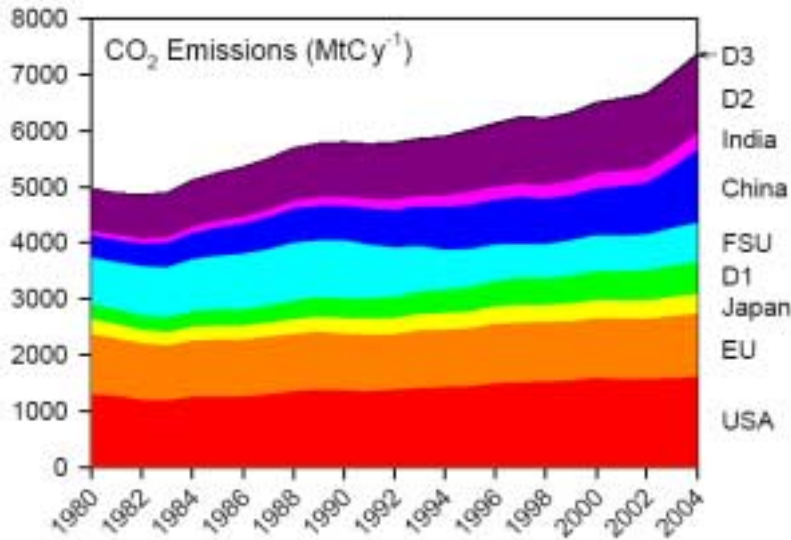
The rich countries that are economically and military dominating the world is responsible for this disaster. They have also been responsible for dividing the world. And they are now with the help of WTO, IMF etc. pushing the rest of the world to “join the party”. Are we totally insane?



# Yes, we seem to be totally insane!

Because despite the energy crisis, the oil crisis and the environmental crisis we continue to increase the CO<sub>2</sub> emissions.

Since CO<sub>2</sub> emissions does not disappear we can also note that USA and Canada alone is responsible for one third and EU for about ¼. Totally with Japan, Australia and the remaining Europe these rich countries are responsible for ¾ (75%) of the emissions and global warming so far.



So these are the hard facts. The other hard fact is that we have successfully exported our consumer model to Asia where Taiwan, Korea, Malaysia, China, India,...has become the factories that fills our shopping malls. So now they are increasing their share of CO<sub>2</sub> emission so they can manufacture and export our cars and gadgets. Our electronic waste we are at present shipping to Africa. A modern version of the triangle slave trade.



# Back to the future

By burning the ancient fossil fuel we are actually bringing earth back 500 million years. The problem is we are doing this in a fraction of the time needed for the evolution. This process is now rapidly spinning out of control.

## Box 1.1

### Feedback effects could accelerate climate change

There are many positive feedback effects that could transform climate change scenarios for the 21<sup>st</sup> Century. High levels of uncertainty about positive feedback effects are reflected in IPCC scenario projections.

Multiple feedbacks have been observed in ice sheet disintegration. One example is the 'albedo flip'—a process that occurs when snow and ice begin to melt. Snow-covered ice reflects back to space most of the sunlight that strikes it. When surface ice melts, darker wet ice absorbs more solar energy. The meltwater produced burrows through the ice sheet, lubricating its base, and speeding the discharge of icebergs into the ocean. As an ice sheet discharges more icebergs into the ocean, it loses mass and its surface sinks to a lower altitude, where the temperature is warmer, causing it to melt even faster. Meanwhile, warming oceans add yet another positive feedback to this process, melting the offshore accumulation of ice—ice shelves—that often form a barrier between ice sheets and the ocean.

The accelerated melting of permafrost in Siberia with global warming is another concern. This could release vast amounts of methane—a highly potent greenhouse gas—into the atmosphere, which would increase warming and the rate at which permafrost melts.

The interaction between climate change and the carbon sink capacity of rainforests provides another example of positive feedback uncertainties. Rainforests can be thought of as vast 'carbon banks'. Trees in the Amazon region of Brazil alone store 49 billion tonnes of carbon. Another 6 billion tonnes is stored in Indonesia's forests. As global temperatures rise, changing climate patterns could generate processes that will lead to the release of large amounts of carbon from these reservoirs.

Rainforests are already contracting at an alarming rate in the face of commercial pressures, illegal logging and other activities. Under a business-as-usual scenario, climate models forecast temperatures in most of the Amazon region rising by 4–6°C by 2100. This could convert up to 30 percent of the Amazon rain forest into a type of dry savannah, according to research carried out under the auspices of Brazil's National Space Research Institute. Such an outcome would in turn drive up net global emissions of CO<sub>2</sub>. Because rainforests recycle at least half of rainfall back into the atmosphere, accelerated deforestation would also increase drought and fuel the spread of savannah areas.

Source: FAO 2007b; Hansen 2007a, 2007b; Houghton 2005; Nobre 2007; Volpi 2007.

# The gravest threat ever

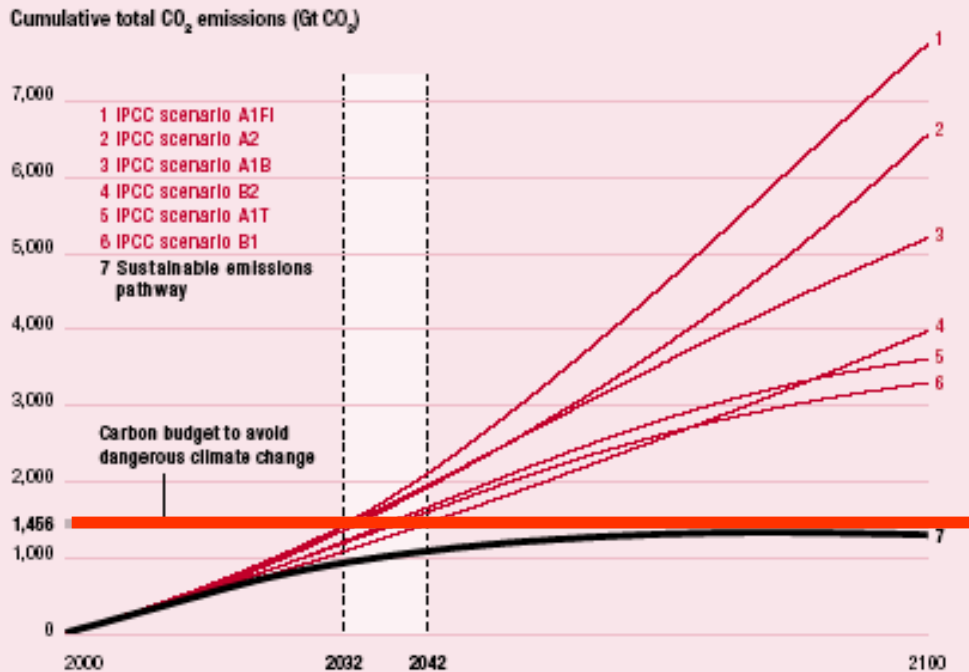
## Conclusion and summary of recommendations

Climate change confronts humanity with stark choices. We can avoid 21<sup>st</sup> Century reversals in human development and catastrophic risks for future generations, but only by choosing to act with a sense of urgency. That sense of urgency is currently missing. Governments may use the rhetoric of a 'global security crisis' when describing the climate change problem, but their actions—and inactions—on energy policy reform tell a different story. The starting point for action and political leadership is recognition on the part of governments that they are confronted by what may be the gravest threat ever to have faced humanity.

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. There could be no greater challenge to our assumptions about progress than that of realigning economic activities and consumption with ecological realities.

# The alarming common future

Figure 3 The 21<sup>st</sup> Century carbon budget is set for early expiry



Note: IPCC scenarios describe plausible future patterns of population growth, economic growth, technological change and associated CO<sub>2</sub> emissions. The A1 scenarios assume rapid economic and population growth combined with reliance on fossil fuels (A1FI), non-fossil energy (A1T) or a combination (A1B). The A2 scenario assumes lower economic growth, less globalization and continued high population growth. The B1 and B2 scenarios contain some mitigation of emissions, through increased resource efficiency and technology improvement (B1) and through more localized solutions (B2).

Source: Meinshausen 2007.

Although we now can read many alarming reports they are equally rapidly forgotten. Our newspapers, television, political and industrial leaders are failing. They have not understood how serious this situation is, *“a remarkable lack of urgency”* as UN GEO4 says.

All the scenarios described by UN will result in dangerous climate change.

The difference is only when. The change required to counteract this is extremely drastic. It can be done but it require us to question the economic growth by consumption model that right now is controlling the world.

We can not wait another 2 years for a new post Bali protocol!

This is why YOU have the responsibility to make the change.

# ”Stupid white men”

We are living in a world governed by white men for white men. The colonial imperialism and the industrial revolution was the deed of the white man. This model was further refined in America and is now the Anglo-American mass consumption culture dominating the world. It is a model based on expansion and growth. And it is a model based on competition in a free market where everything is given a value in money. A model with the freedom for many white men to become billionaires. So what is wrong with that?

It is also a model based on more and more raw material, more and more energy, more and more oil and more and more pollution. The model itself requires growth. Each corporation has to grow. And for this we have to consume more. More consumption, expansion, pollution – for ever? naturally not. What we call “progress” is a dead end street. “The road to hell”.

What some of us call the war against terror is really a war for more oil. The American filmmaker Michael Moore used the expression “Stupid white men”. And it is we – “the stupid white men” that are the real terrorists and terrorizing our planet. Common generations (if any) will remember us as extremely “stupid white men” living in the “black ages”.

# Your wake up call!

In just one generation man has managed to severely damage our environment. WE = you and me are responsible for this crime against Nature. WE = the rich part of the world living in a few rich countries in the western world. The same western countries responsible for the colonial suppression of Asia and Africa, the cruel slavery and the genocide on the native people and nature of America as well as the devastating World Wars are also responsible for the burning of our fossil fuels, the unsustainable use of natural resources and the pollution of water, air and land. We are “the bad guys”!

With the most powerful weapon of mass destruction ever, **the OIL**, we are endangering the very foundation of life on this planet. Our consuming life style “Made in USA” has proven very successful to create economic growth, at least for some of us. But at the same time this is a very inefficient and unsustainable way of living. If the whole world would have “The American way of life” we would need nine (9) planets. But we only have one common earth.

Despite these facts and our unflattering history we continue to preach our model as a superior way of living to others. And although we now have all the facts in the UN and other alarming reports we are continuing our “road to hell”.

We need to change direction – NOW!

This is therefore a wake up call to you to do everything you can to save our common future.



# Pull the emergency break and the fire alarm!

I have been involved in the energy and environmental discussions since the 1970s. I have a large library with a large numbers of books about these subjects as well as our history and future and I follow the Internet. Throughout the years they have been converging to the same conclusion that we are living far above our means but still we have not changed.

In “Preparing for the twenty-first century” from 1993 Paul Kennedy states:

*“It is inconceivable that the earth can sustain a population of 10 billion people devouring resources at the rate enjoyed by richer societies today – or at even half that rate. Well before that total world population reaches that level, irreparable damage to forest, water supplies, and animal and plant species will have occurred, and many environmental thresholds may have been breached.”*

He give several explanations why it is so difficult to change but the main reason is that we do not care about the future. *“Even if it is worth trying to curb global warming – by banning gas-guzzling cars, curbing factory emissions, halting Forrest clearing etc. – the problem is that these actions have to be implemented now for the sake of consequences twenty five or forty years ahead.”*

We have to pull the emergency break and the fire alarm -NOW. But who shall take this responsibility for the common future and our common earth?

You are! You need to wake up the others as well. And it is very, very urgent!