

# The sixty years crisis

## A short history of a huge problem



### Part 2 The Surprise Compiled by Carl Ohlen

When you have gone through this history  
please send your feedback to:

[carl.ohlen@lacable.se](mailto:carl.ohlen@lacable.se)

All photos copyright Carl Ohlen but complete pdf document with text may be  
copied and/or forwarded to others  
All other material posted by source on Internet according to reference

# 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

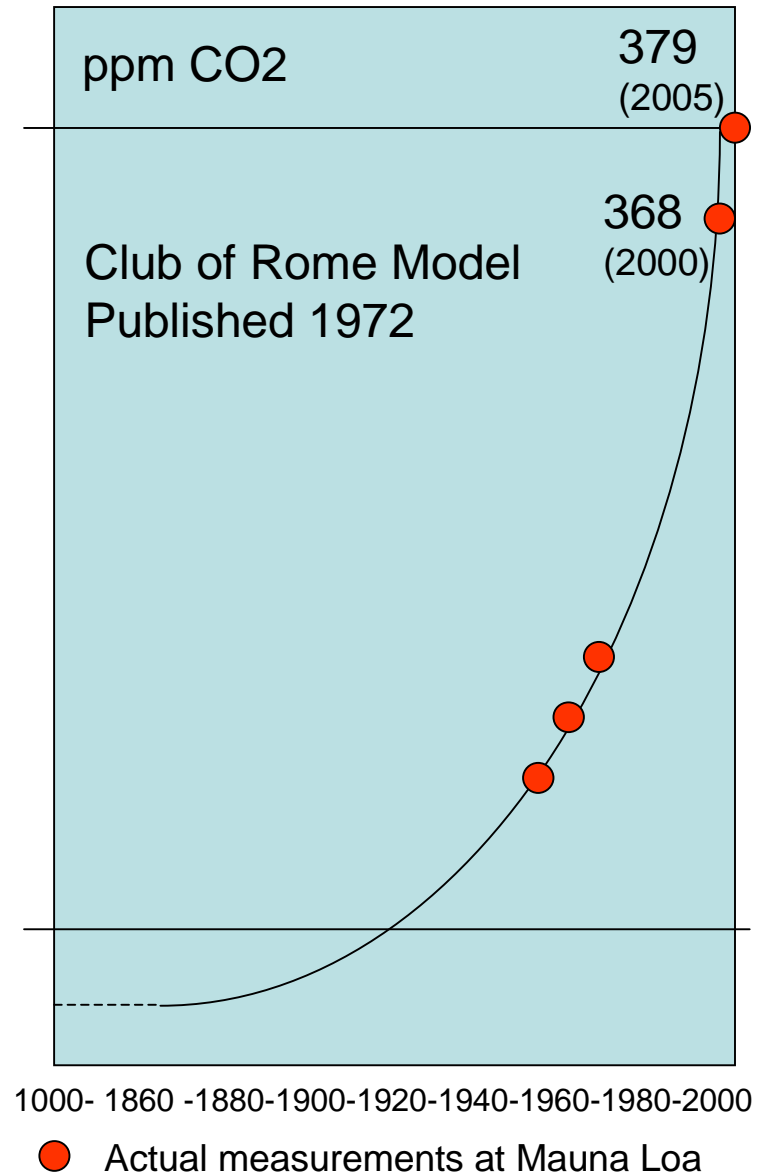
# The surprise?

1972 when the first UN conference on the environment was held in Stockholm a large number of reports and books were published with warnings for the consequences of our increasing use of natural resources and resulting pollution.

One of these studies came from “The club of Rome” with scientists using a computer model of the world. This report was criticized by the establishment and soon forgotten like most of the other books.

This report from 1972 (35 years ago) did however forecast the increase of the carbon dioxide (CO<sub>2</sub>) and the threat of global warming. When we today compare their forecast with actual result we find....  
**that they were absolutely 100% right...**

**35 years ago!**



# Only one earth 1972

On a Swedish initiative the UN general assembly decided the 3rd of December 1968 on an conference to be held in Stockholm 5-15 June 1972 on the human environment.

The following words was the introduction for this UN conference by the Swedish Committee headed by prime minister Olof Palme and ex prime minister Tage Erlander, 35 years ago!

*“To continue life on earth is the only option for human survival. But our planets natural resources are limited. Our common biosphere therefore impose an common responsibility on all countries to secure the ecological balance. Our responsibility includes future generations.*

*Our national driving forces that earlier were aimed at fighting poverty and diseases is now directed towards a fair distribution of the common resources. International solidarity should be directed towards a fair distribution of the global resources between rich and poor countries.*

*Our earth has a limited ability to absorb the increasing pollution from us humans. Our basic goal has to be a good environment and a healthy biosphere. Because of this the production and consumption patterns will be radically changed.”*

**And the production and consumption patterns did radically change. But not the way we wanted 35 years ago. It became worse. Much worse!**

# This was the conclusion 35 years ago

*“In all industrial activities and the use of natural resources the Nature will impose certain limits which we independent of economical system have to consider:*

- The ecological limitations, i.e. Natures own tolerance for pollution and other disturbances in the ecological balance.*
- The physical limitations of resources, i.e. that a certain substance is available up to a certain amount.*
- The economical limitations, i.e. the cost to retrieve resources.....*

*These limitations often interact when it comes to consumption of a specific resource. We can assume that that for some resources it is the ecological limitations and not the absolute quantity that will limit the maximum use. As an example we can mention the burning of fossil fuels which are limited by the Natures tolerance for CO<sub>2</sub> ”.....*

*..... ”The amount of coal that for million of years has been stored apart from the biosphere is now being released very rapidly to the eco system. An increased level of CO<sub>2</sub> in the atmosphere will also reduce the heat radiation from Earth with an increased average temperature as a consequence”*

*” The climate on earth become warmer because of the green house effect which is created with the increased level of CO<sub>2</sub> in the atmosphere. Large and unpredictable consequences for the environment will happen before 2030..... ”*

**So who wrote these wise words 35 years ago that now have come true?**

# I wrote these words 35 years ago

At the time for the UN conference in Stockholm 1972 I was studying to get my MSc degree in Electric Power Engineering at the Royal Institute of Technology. I also studied a new “strange” course at the University of Stockholm called “Environmental Technology.” For me the problem with burning oil and other fossil fuel was absolutely clear both as an educated engineer and a “normal” person.

The CO<sub>2</sub> problem and the green house effect was well known. It was a Swede, Svante Arrhenius who discovered this 1903. It was included in my course literature. It was one in a row of problems with DDT, lead, cadmium, fertilizers and all sorts of chemicals “leaking” into the environment. And then came the worst of them all, radioactive waste from nuclear reactors that had to be isolated for ever.

And it was also quite clear that the pollution was connected to our massive and inefficient use of natural resources. Several books were published about this environmental crisis. “Silent Spring”, “Only One Earth”, “The Limits of Growth”, “The Energy Crisis”, “Före- Efter” (Before and After) and “The Closing Circle” all came to the same conclusion; we need to change our way of living.

So am I proud that everything I and many others warned for 35 years ago; global warming, depletion of resources, war for oil, and that severe oil and nuclear accidents do happen – did happen? No I am not! I am ashamed!

# The "revolutionary" years

We were a group of young students who got more and more convinced that something was very wrong with the way our world was "progressing". The increased use of natural resources from the old colonies to fuel the consumption of the rich world. The many colonial wars against the "third world" with the US terror bombing of Indochina as the worst example using chemical and biological warfare against a whole population and nature itself. Later the crime of September 11. (The first!) when the democratic government of Allende in Chile was overthrown by a coup initiated by the American government and CIA when thousands of innocent people were tortured & murdered. All of this was just WRONG for us young and unspoiled minds.

A few of us in Sweden formed Peoples Forum as an alternative for the UN conference in Stockholm 1972, an activist group to spread this message in books, magazines, art and workshops. I published reports on oil, the energy crisis and global warming.

We also lived the way we learned with minimum consumption. Several of us shared a common house and meals hosting refugees from Chile and the Vietnam war, grew our own vegetables and fruit, brew our own wine, commuted by train and bus, went camping with bicycles and canoes or took our common boat from 1925 into Stockholm or out the archipelago. And yes we had a great time with life quality while we practiced sustainable living. We were all part of a new "enlightened" and fortunate generation.

What happened to us?

# So what happened to us?

The revolutionary generation of young kids who evolved and dared to question and criticize the establishment, the materialistic thinking with only money, the imperialistic wars of the rich countries to take from the poor countries. What happened to us young brains and souls who believed in freedom, justice, solidarity, equality, peace, love, sustainable green living?

We became the establishment! We got greedy. We are the generation responsible for what is now happening. This is why I cannot say I am proud that I had the insight as a young student about this 35 years ago. Instead I am utterly ashamed that I have failed to stand up for this insight and ideas. Because I became part of this development that is devastating our planet.

Please forgive me for being right..... and wrong!

So how did this happen. The fall of the Berlin wall and the Soviet Union did change the world radically. But not only for the people living there. USA won the cold war not with nuclear weapons and star wars but with the “American Dream”. Big Mac , Coke, Ford, Levis won the cold war. The American consumer model could deliver. The Soviet model could not.

This is what China has learned.



# So what happened to critical thinking?

Very few if any are today sorry for the fall of the Berlin wall and the Soviet Union. But it changed much more. The American victory was a political, cultural and economical victory. All of a sudden we only had one alternative. Everything that happened during the sixties and seventies was not only forgotten. It was banned. All of a sudden we had a new McCarty era but by choice. We were traveling a one way street.

Now the world bank and others could preach the new religion without any opposition. There were none. The “independent media” was bought by large media moguls. All political parties became copycats with the same main stream message. The “left” disappeared and “the “green” never had a whole agenda. So when we now do have to find a sustainable way of living that will radically change the way we organize our society and guide our economical and technological priorities it is a huge challenge.

It is very, very difficult “to fight the system” and it is very, very difficult to change your own behavior. This is why I am extremely worried that even now when we are 100% sure of what is happening to our only earth that we still are unable to change. Just watch television and read the newspapers. After one alarming report it is instantly forgotten. Global corporations and global media is now part of the same global establishment. We spend 1000 times more on advertising for more consumption than informing about global warming. Everything is for sale in a global supermarket. And we are gambling with our common future on the stock market! But what we need is critical and constructive thinking to form a new sustainable model for the future!







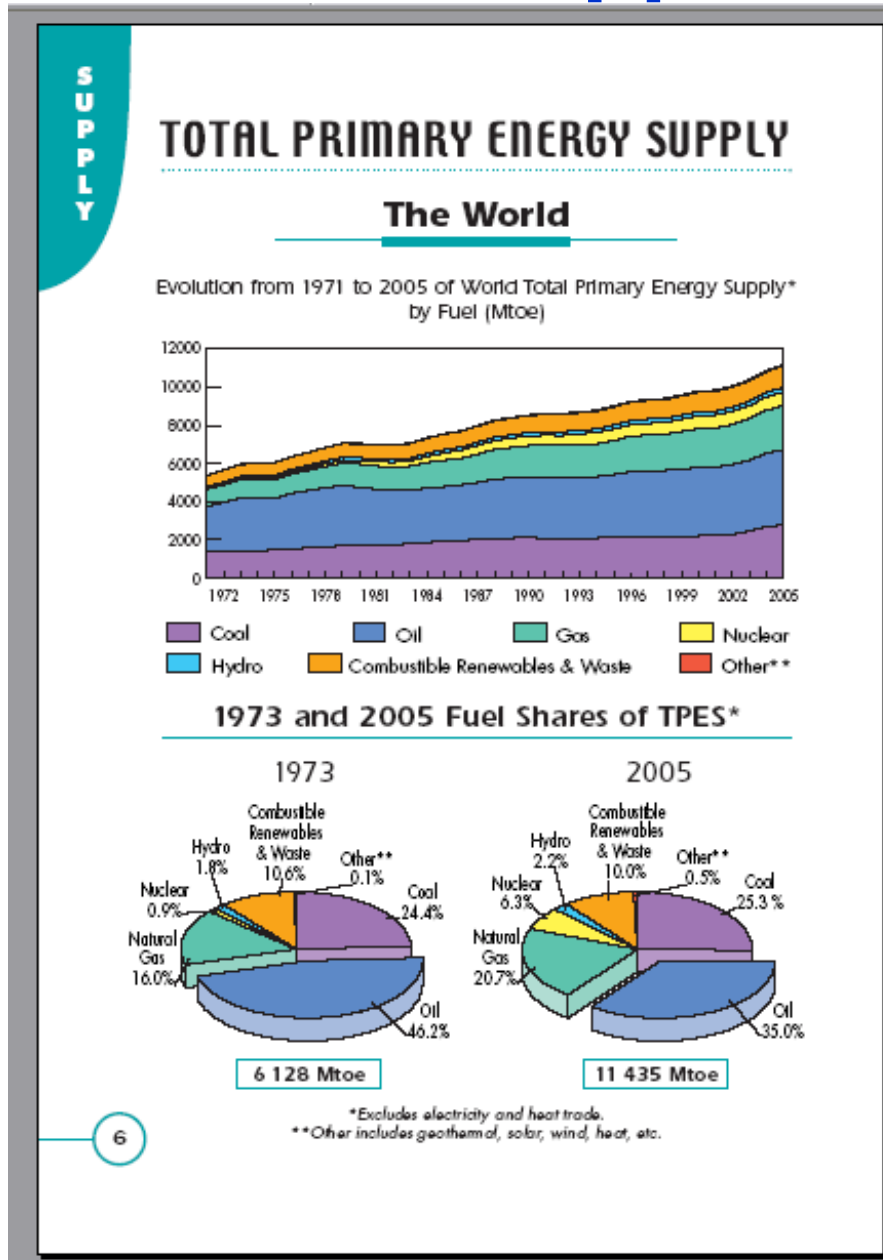
# So what happened to us after 1972?

The most evident trend is that the energy consumption in the world almost doubled from 1972 to 2005.

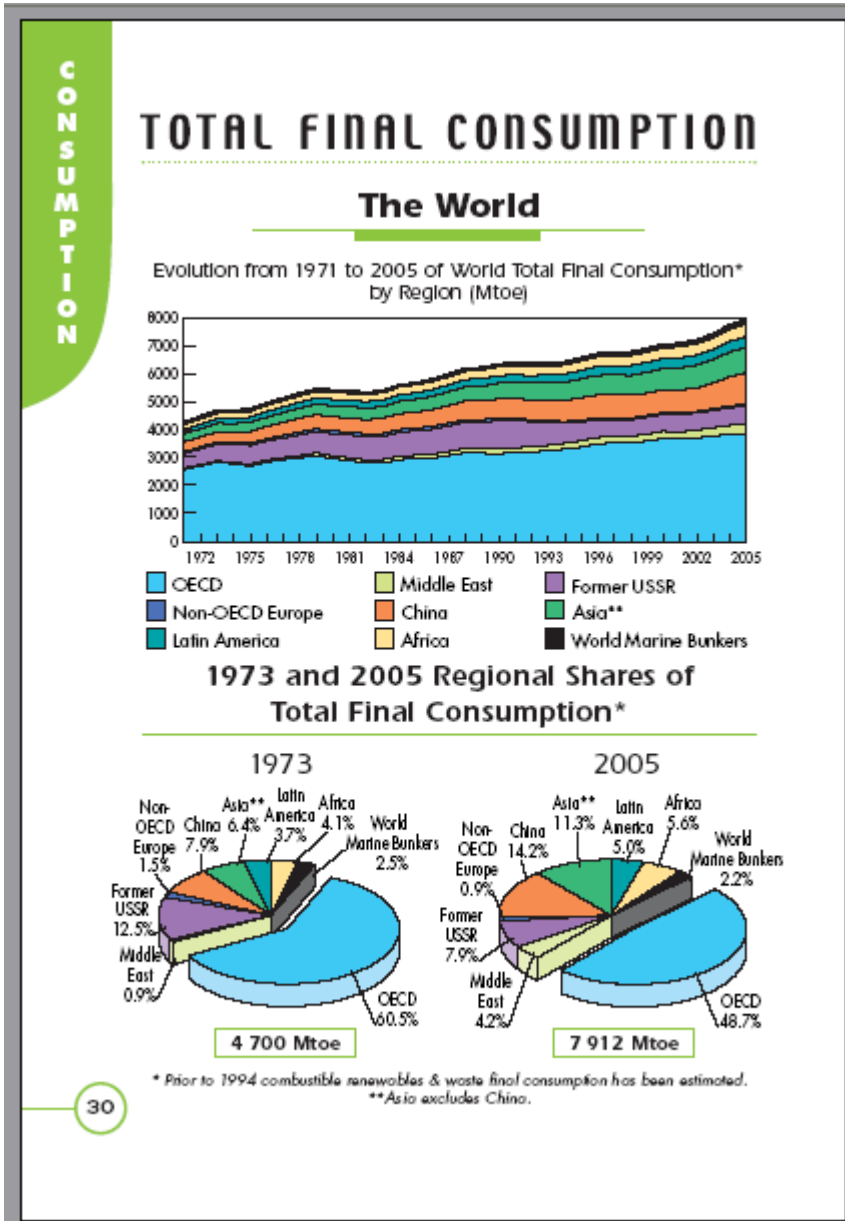
The other evident trend is that the percentage renewable energy did NOT increase.

We are still to 90% depending on fossil or nuclear fuel. So the burning of coal, oil and gas increased a lot despite of all these warnings.

So with all the environmental problems of both fossil and nuclear fuel, what is going to be our sustainable energy? The “best” solution so far by us “stupid white men” is to put our heads in the sand and dump the nuclear and CO<sub>2</sub> waste deep down in the ocean or mountain for some thousands of years. So we can continue consuming.



# We became more equal and fair?



1973 the rich OECD countries in America, Europe, Japan and Australia consumed more than 60% of the world energy. Today this figure is reduced to 49%. So you may say that the world has become more equal.

But the OECD countries has about 1 billion people and consumes half of the resources while the remaining world has more than 5 billion people to share the other half.

The consumption has increased in some of the old colonies (we now call them emerging markets) in Asia, Africa and Latin America, but so has the population.

And the consumption continuous to increase in the OECD countries.

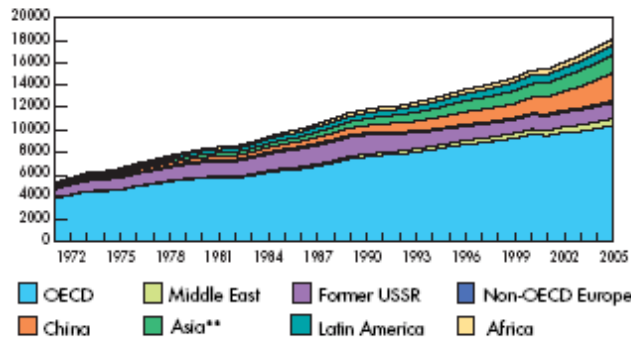
So we now know that we have an even smaller cake than before if we shall survive. So what is a fair split? 50/50, 80/20, 100/0.



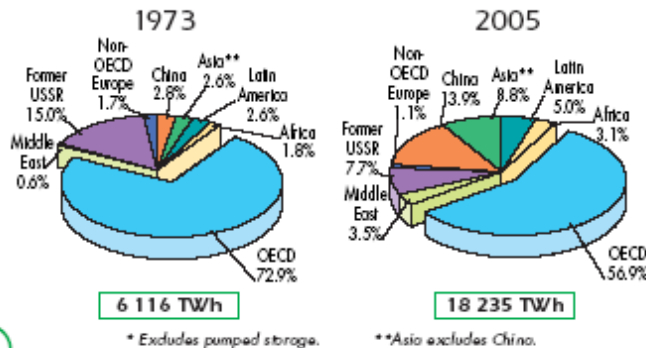
# We electrified the world!

## Electricity Generation\* by Region

Evolution from 1971 to 2005 of World Electricity Generation\* by Region (TWh)



## 1973 and 2005 Regional Shares of Electricity Generation\*



I am an electric power engineer and I have worked with this all over the world since 1972. Electricity is the base for the modern world. Electrification gives people the possibilities not only for light and TV but for water and sanitation. It is also a clean alternative for public transportation.

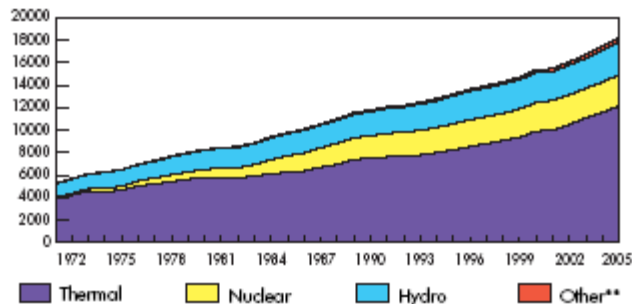
The electric generation has consequently tripled between 1972 to 2005. 1972 the rich countries in OECD represented as much as 73% while China had 2.8%. Today these figures are 57% for OECD compared to 14% for China with approximately the same population. So China is rapidly electrifying but is still only on  $\frac{1}{4}$  level of OECD per capita.

Electricity is by it self a fairly “clean” energy and is needed for all development. But it can be either “green” or “black” depending on how we produce it.

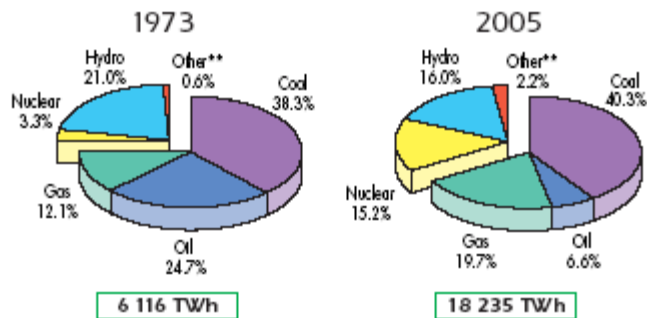
# We burned more fossil fuel

## Electricity Generation\* by Fuel

Evolution from 1971 to 2005 of World Electricity Generation\* by Fuel (TWh)



## 1973 and 2005 Fuel Shares of Electricity Generation\*



6 116 TWh

18 235 TWh

\*Excludes pumped storage.

\*\*Other includes geothermal, solar, wind, combustible renewables & waste.

So although electricity is clean the way we produce it may not. The use of fossil fuel for electricity production more than doubled from 1972 despite the fact that the use of nuclear fuel increased much more....until the two nuclear accidents.

USA is still in the lead of fossil fuel burning also for electricity, but now China is coming strong and India....

So why do we never learn? All the negative consequences about both fossil and nuclear fuel were known 1972. We had our first UN conference to change the direction of our inefficient and demanding model. And then we not only continue as before – we speed up the process.

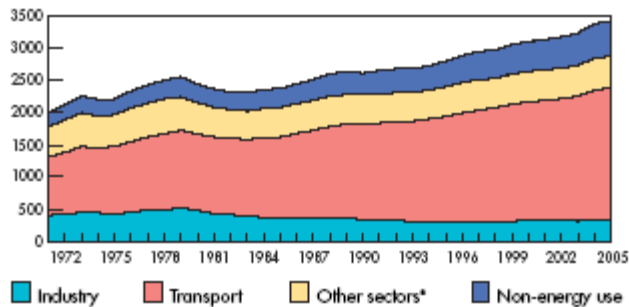
We even call it progress, liberalization and globalization.

# And we used more and more oil

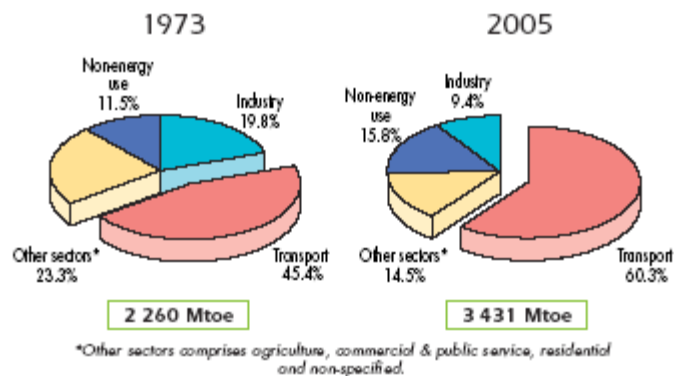
## BY SECTOR

### Oil

Evolution from 1971 to 2005 of Total Final Consumption by Sector (Mtoe)



### 1973 and 2005 Shares of World Oil Consumption



33

Despite the warnings from 1972, a large oil crisis with restrictions and several large tanker accidents (Amoco Cadiz, Exxon Valdez) and many smaller the oil consumption continued to increase from the mid eighties.

The industrial consumption decreased! But the transportation sector skyrocketed. From 45% share it grew to more than 60% This means the oil consumption for cars, ships and airplanes doubled in just twenty years.

“Economic reforms” boosted trade of consumer goods. Transnational corporations moved the production where it was cheapest. Enormous shopping centers were built in North America and Europe for the goods “made in Taiwan, Korea, China, India, Bangladesh,.....

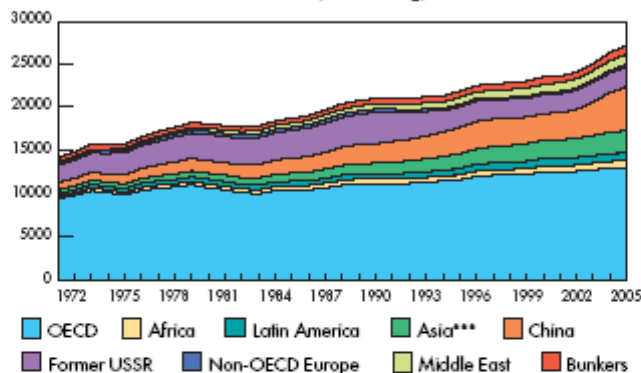
And we could afford larger cars, SUVs, air conditioning, gadgets and flying on vacation.



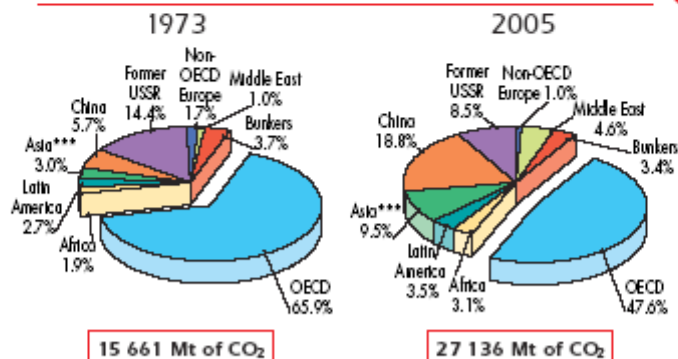
# So we polluted even more

## CO<sub>2</sub> Emissions by Region

Evolution from 1971 to 2005 of World\* CO<sub>2</sub> Emissions\*\* by Region (Mt of CO<sub>2</sub>)



## 1973 and 2005 Regional Shares of CO<sub>2</sub> Emissions\*\*



\* World includes international aviation and international marine bunkers, which are shown together as Bunkers. \*\* Calculated using IEA's Energy Balance Tables and the Revised 1996 IPCC Guidelines. CO<sub>2</sub> emissions are from fuel combustion only. \*\*\* Asia excludes China.

6

The CO<sub>2</sub> emissions continued to increase. And the concentration of CO<sub>2</sub> in the atmosphere increased. First according to expectations. Then even faster.

The Nature who normally has been able to absorb half of our emissions was saturated. The absorption decreased. Because when the water and the air gets warmer and with more acid it influences the biosphere. The rainforests, the coral reefs, the planktons grow slower. The permafrost in the Northern part of the world warms up and start to emit more green house gases.

We the fortunate generation in the rich world had disturbed the very ecological balance and created an unstable situation we no longer can control. So how big boat can we build and who are we going to save from the great flood?

# WWF Living Planet Report

It is like we were living in two different worlds. In one world an alarming report after the other was published telling us the same thing. We are consuming our only earth.

But in the other world we continued our dance around “the golden calf” with “liberalization” and “globalization” to increase growth and consumption.

*“The message of the Living Planet Report 2006 is that we are living beyond our means, and that the choices each of us makes today will shape the possibilities for the generations which follow us.”*

WWF began its Living Planet Reports in 1998 to show the state of the natural world and the impact of human activity upon it. Since then we have continuously refined and developed our measures of the state of the Earth.

And it is not good news. The *Living Planet Report 2006* confirms that we are using the planet's resources faster than they can be renewed – the latest data available (for 2003) indicate that humanity's Ecological Footprint, our impact upon the planet, has more than tripled since 1961. Our footprint now exceeds the world's ability to regenerate by about 25 per cent.

The consequences of our accelerating pressure on Earth's natural systems are both predictable and dire. The other index in this report, the Living Planet Index, shows a rapid and continuing loss of biodiversity – populations of vertebrate species have declined by about one third since 1970. This confirms previous trends.

The message of these two indices is clear and urgent: we have been exceeding the Earth's ability to support our lifestyles for the past 20 years, and we need to stop. We must balance our consumption with the natural world's capacity to regenerate and absorb our wastes. If we do not, we risk irreversible damage.

We know where to start. The biggest contributor to our footprint is the way in which we generate and use energy. The *Living Planet Report* indicates that our reliance on fossil fuels to meet our energy needs continues to grow and that climate-changing emissions now make up 48 per cent – almost half – of our global footprint.

We also know, from this report, that the challenge of reducing our footprint goes to the very heart of our current models for economic development. Comparing the Ecological Footprint with a recognized measure of human development, the United Nations Human Development Index, the report clearly shows that what we currently accept as “high development” is a long way away from the world's stated aim of sustainable development. As countries improve the well-being of their people, they are bypassing the goal of sustainability and going into what we call “overshoot” – using far more resources than the planet can sustain. It is inevitable that this path will limit the abilities of poor countries to develop and of rich countries to maintain prosperity.

It is time to make some vital choices. Change that improves living standards while reducing our impact on the natural world will not be easy. But we must recognize that choices we make now will shape our opportunities far into

the future. The cities, power plants, and homes we build today will either lock society into damaging overconsumption beyond our lifetimes, or begin to propel this and future generations towards sustainable living.

The good news is that this can be done. We already have technologies that can lighten our footprint, including many that can significantly reduce climate-threatening carbon dioxide emissions. And some are getting started. WWF is working with leading companies that are taking action to reduce the footprint – cutting carbon emissions, and promoting sustainability in other sectors, from fisheries to forests. We are also working with governments who are striving to stem biodiversity loss by protecting vital habitats on an unprecedented scale.

But we must all do more. The message of the *Living Planet Report 2006* is that we are living beyond our means, and that the choices each of us makes today will shape the possibilities for the generations which follow us.

**James P. Leape**  
Director General, WWF International

# The human foot print

*“This report describes the changing state of global biodiversity and the pressure on the biosphere arising from human consumption of natural resources. The scenarios show how the choices we make might lead to a sustainable society living in harmony with robust ecosystems, or to the collapse of these same ecosystems, resulting in a permanent loss of biodiversity and erosion of the planet’s ability to support people.”*

*..”This global trend suggests that we are degrading natural ecosystems at a rate unprecedented in human history. Biodiversity suffers when the biosphere’s productivity cannot keep pace with human consumption and waste generation.”*

WWF is showing that we around 1980 passed the limit of earth and we are now consuming around 30% more than the capacity of GAIA - EVERY YEAR.

If we just look at CO<sub>2</sub> we are already polluting at twice the capacity of earth.

And since about 50% of this pollutions stays in the atmosphere for up to hundreds of years we are already consuming the future for many generations to come.

Fig. 1: LIVING PLANET INDEX, 1970–2003

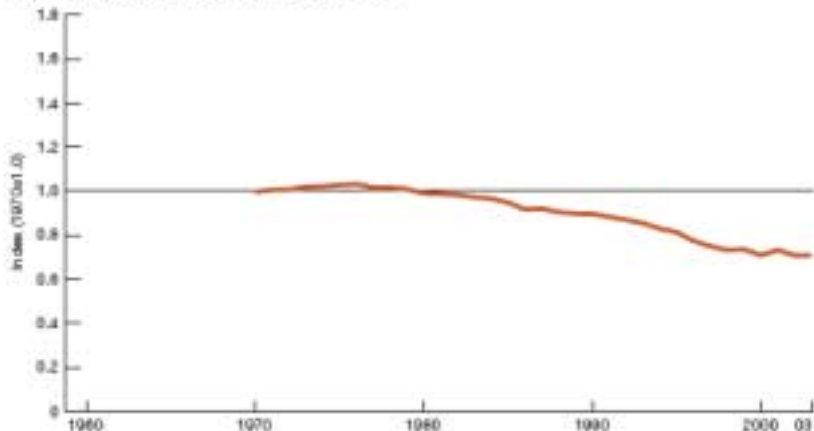
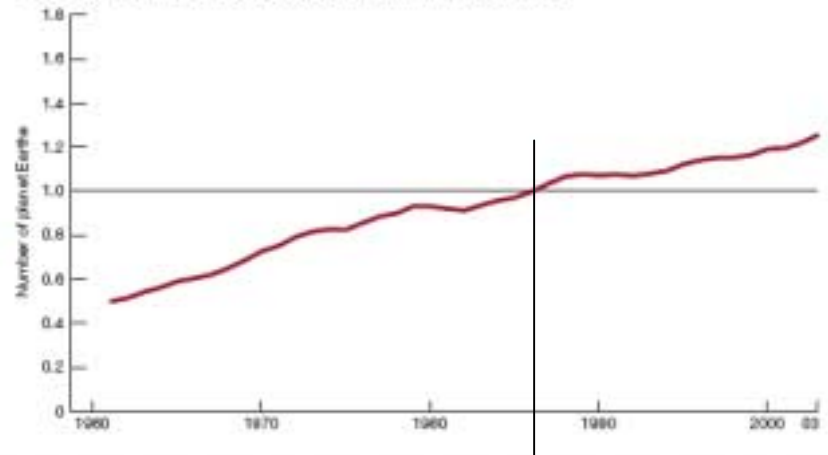


Fig. 2: HUMANITY'S ECOLOGICAL FOOTPRINT, 1961–2003



# WARNING - Ecosystem collapse!!!

*“At this level of ecological deficit, exhaustion of ecological assets and large-scale ecosystem collapse become increasingly likely.”*

WWF is predicting that if we continue this degradation (And we do) we are facing a complete ecosystem collapse. Can you imagine that this horrible prediction 2006 still did not move us. We are continuing with Business As Usual. Yes we are doing a few things and we are arranging more conferences – but no one is discussing the C word. Changing our life style. Changing our western over consuming life style based on continuous growth to a low consuming re-cycling and sustainable society.

Because if you look at the table below you will find that once again USA is in the absolute top on both per capita and total foot print. And together with UK and Japan , USA is far above the capacity limit. But you can also see that even though India and China has a much lower foot print they are already above bio capacity because of the size of the population. Still we are promoting our devastating western model as “Liberalization” and “Globalization” for them – while we continue our own growth.....

Fig. 3: THREE ECOLOGICAL FOOTPRINT SCENARIOS, 1961–2100

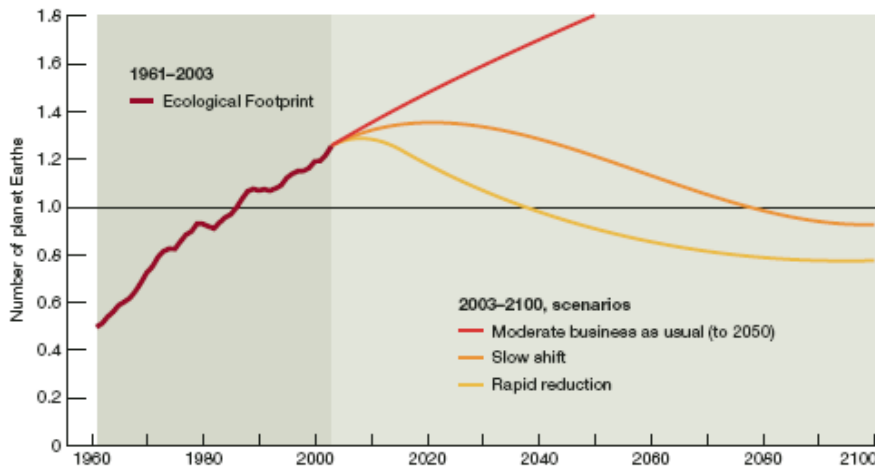


Table 1: ECOLOGICAL DEMAND AND SUPPLY IN SELECTED COUNTRIES, 2003

	Total Ecological Footprint (million 2003 gha)	Per capita Ecological Footprint (gha/person)	Biocapacity (gha/person)	Ecological reserve/deficit (-) (gha/person)
World	14 073	2.2	1.8	-0.4
United States of America	2 819	9.6	4.7	-4.8
China	2 152	1.6	0.8	-0.9
India	802	0.8	0.4	-0.4
Russian Federation	631	4.4	6.9	2.5
Japan	556	4.4	0.7	-3.6
Brazil	383	2.1	9.9	7.8
Germany	375	4.5	1.7	-2.8
France	339	5.6	3.0	-2.6
United Kingdom	333	5.6	1.6	-4.0
Mexico	265	2.6	1.7	-0.9
Canada	240	7.6	14.5	6.9
Italy	239	4.2	1.0	-3.1

Notes: Totals may not add up due to rounding. For an explanation of global hectares (gha) see page 38.

# It is simple to understand

It is very simple to understand that we are facing an ecological disaster.

I understood this together with many young students of my generation 35 years ago. It was just to look at the facts. An economical model that requires continuous growth for infinity and that this model result in an exponential depletion of our resources and enormous amount of waste is not possible – except for a very short time in history – and for a small part of the population.

And this has happened during our life time. During our “watch” on our common planet. Somewhere we forgot what life is about. We followed the consumption euphoria and the dance around the golden calf. After the few “revolutionary” years in the sixties and seventies basically all critics of our successful western model disappeared in pace with every new shopping mall being built. We were “brain washed”, but by whom? The market? Ourselves?

“Freedom” became equal with “free trade” and quality of life became equal to more consumption. Large corporations became transnational with the planet as ONE MARKET. Everything even places and people became trade marks and branding. It was materialized into money and the goal was to become rich, richer and richest. The banking “industry”, the insurance “industry”, the investment “industry” , the “futures industry” grew....out of control.



# It is difficult to change but we have to!

We (rich people in the rich world) became part of all of this. Our pension savings entered the stock market. 100 times per day we hear, see and read if the stock market is up or down 0.1 %. We are gambling about our future.

Nobody seem to be able to think longer than a few weeks ahead and nobody take responsibility for the whole. Well some are. United Nation and all their experts have now published several alarming reports. But who listens? Our media is now “embedded” in this process and so is most politicians. They have invested in this only truth = The market is our only God & consumption our religion. They may believe the reports but think it is political suicide to say that we the people in the rich world have to drastically reduce our present consumption. So instead they mumble that technology can solve this, or .....

So who is responsible for this? We are! You and me. So we have to change. Our present way of life is a disease. Like a cancer in our planet consuming our cells one by one. And it is a cancer caused by our unsustainable way of living. Our way of living is in turn caused by a mental disorder. Our addiction to consumption. We are addicted! In order to change we first need to break this addiction. But first walk out in the forest, listen to the birds contemplate the Nature. For we need to see the reason to change. The beauty of Gaia!



Photos from Gaia





Photos from Gaia