

The sixty years crisis

A short history of a huge problem



Part 9 The Globalization Nightmare
Compiled by Carl Ohlen

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

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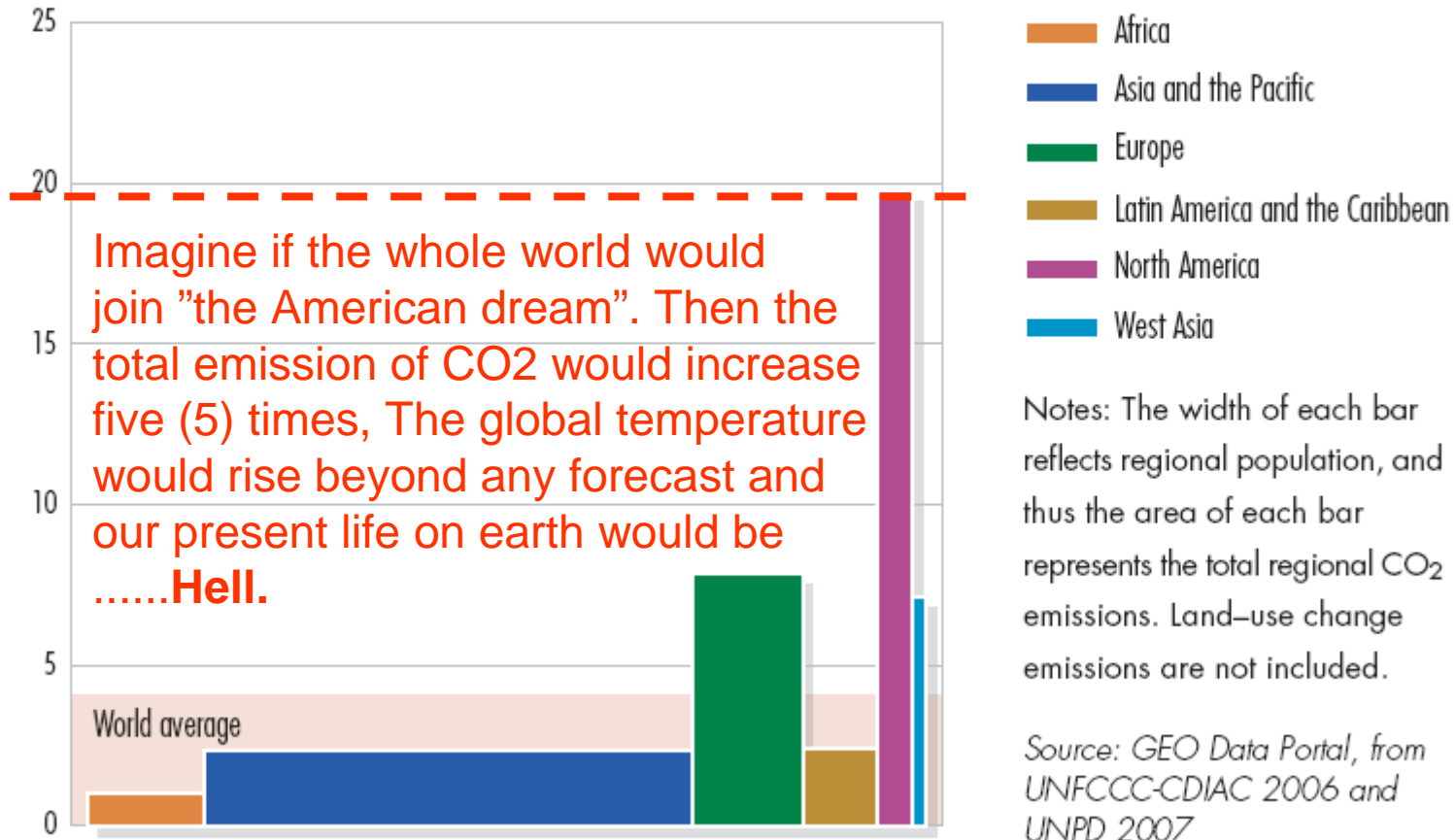
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The globalization nightmare

Figure 2.17 Per capita CO₂ emissions at the regional level in 2003

CO₂ emissions in tonnes per capita



So by now I hope you are convinced that this “nightmare” is NOT allowed to happen. Our common earth can not sustain “The American dream”. We need together to find another sustainable way into the future. If not the nightmare is for real.....

Yes we are melting faster than expected

DAMOCLES
Understanding climate change in the Arctic

About the Arctic September 5th, 2007

A EUROPEAN INTEGRATED PROJECT

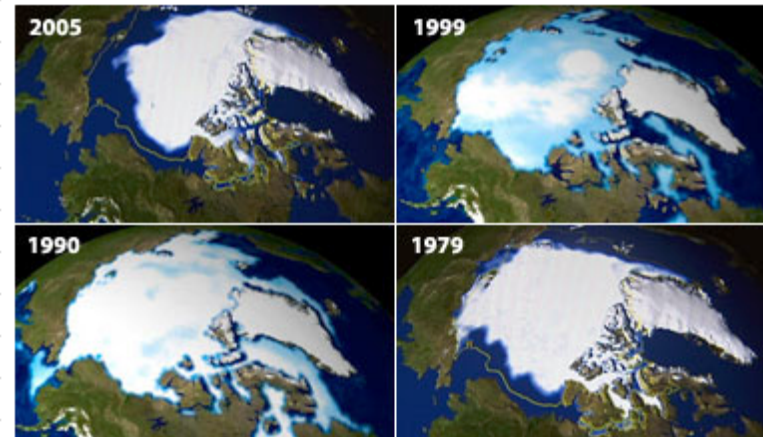
Arctic Climate Impacts Assessment March 20th, 2006

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According to the Arctic Climate Impacts Assessment (ACIA), the Arctic is now experiencing some of the most rapid and severe climate change on earth.

According to the Arctic Climate Impacts Assessment (ACIA), the Arctic



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Antarctica's ice melting faster

Leigh Dayton, Science writer | January 25, 2008

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THE most comprehensive study to date of Antarctica's ice confirms growing concern that the ice cap is melting faster than predicted.



The Intergovernmental Panel on Climate Change has underestimated the impact of polar melting in its predictions. Picture: AFP

The implications are that the global sea level will rise faster than expected, while a huge influx of freshwater into the salty oceans could alter ocean currents.

Antarctica holds 90 per cent of Earth's ice.

According to the new findings, snowfall in the continent's interior and East Antarctic has held its own. But West Antarctica and the Antarctic Peninsula lost nearly 200 billion tonnes of ice in 2006 alone.

That is 75 per cent more than losses in 1996 and the equivalent of a global sea level rise of more than half a millimetre, claim international scientists led by NASA geoscientist Eric Rignot, also with the University of California, Irvine (UCI).

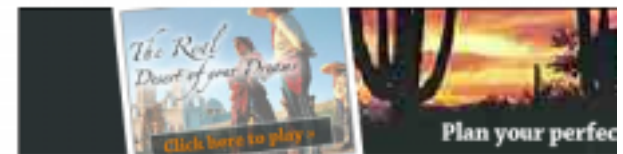


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Arctic Sea Ice Melting Faster, a Study Finds

By ANDREW C. REVKIN
Published: May 1, 2007

Climate scientists may have significantly underestimated the power of [global warming](#) from human-generated heat-trapping gases to shrink the cap of sea ice floating on the Arctic Ocean, according to a new study of polar trends.

Yes we are polluting more than ever

Environment > CO₂ emissions, 2005

48

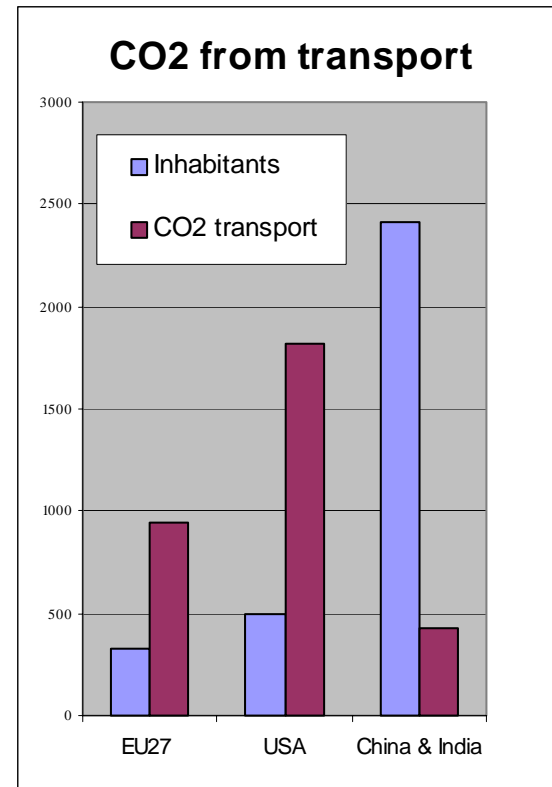
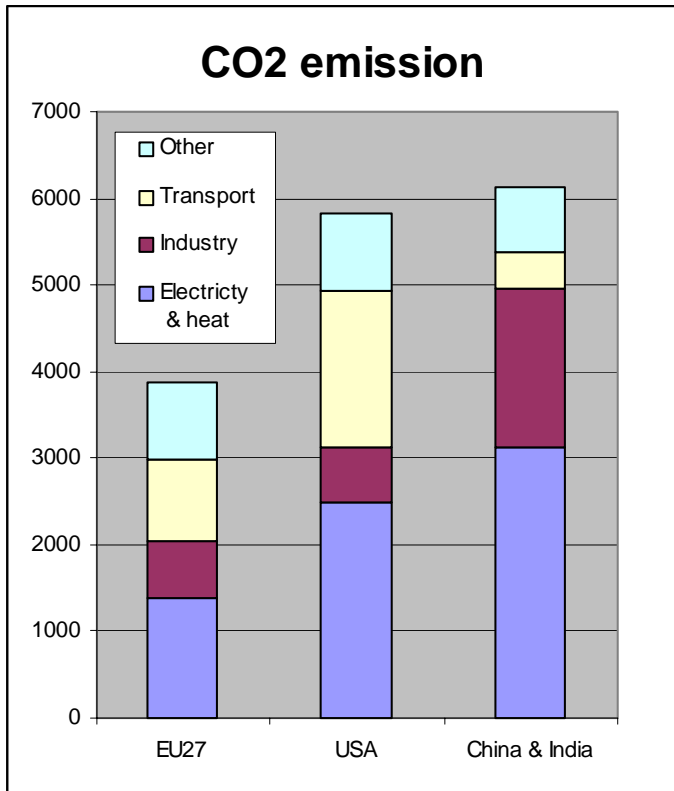
	CO ₂ emissions from fuel combustion ¹													
	Total, million tonnes of CO ₂	% change 2005/1990	By type of fuel Million tonnes of CO ₂				By sector Million tonnes of CO ₂					CO ₂ per unit of GDP kg/2000 USD	CO ₂ per capita t/capita	
			Coal	Oil	Gas	Others ²	Electricity and heat	Industry	Transport	Residential	Other			
Australia	376.8	45.1	214.5	110.0	51.9	0.5	219.1	42.4	79.7	7.9	27.7	0.80	18.40	Australia
Austria	77.2	33.6	15.8	40.4	18.9	2.0	17.8	15.6	22.4	9.2	12.2	0.37	9.37	Austria
Belgium	111.7	2.7	19.1	57.0	33.3	2.3	24.6	25.5	26.2	20.5	14.9	0.45	10.67	Belgium
Canada	548.6	27.9	110.8	267.2	170.1	0.5	126.7	90.9	160.2	39.8	130.9	0.67	17.00	Canada
Czech Republic	118.1	-23.3	74.4	25.1	17.8	0.8	62.2	22.3	18.9	7.0	7.7	1.74	11.54	Czech Republic
Denmark	47.5	-6.2	14.3	21.9	10.4	0.9	20.3	5.1	13.3	3.6	5.2	0.28	8.77	Denmark
Finland	55.4	0.8	20.1	26.5	8.4	0.5	22.4	12.3	13.3	2.1	5.3	0.40	10.57	Finland
France	388.4	9.3	51.9	239.5	92.8	4.2	56.6	78.2	134.5	65.5	53.6	0.27	6.19	France
Germany	813.5	-15.9	327.7	297.0	185.0	3.8	338.1	118.5	158.5	121.0	77.3	0.41	9.86	Germany
Greece	95.7	35.5	37.8	52.3	5.4	0.1	46.6	9.4	22.1	9.9	7.7	0.53	8.62	Greece
Hungary	57.7	-18.3	12.8	17.6	27.0	0.3	18.1	8.5	11.9	10.6	8.6	0.97	5.72	Hungary
Iceland	2.2	16.1	0.4	1.8	0.0	0.0	0.0	0.8	0.7	0.0	0.7	0.21	7.46	Iceland
Ireland	43.8	41.5	10.7	25.2	7.9	0.0	15.0	5.2	12.8	6.7	4.1	0.35	10.55	Ireland
Italy	454.0	14.0	63.4	224.3	163.2	3.1	141.1	84.1	119.1	61.8	47.9	0.40	7.76	Italy
Japan	1 214.2	14.8	418.9	620.1	171.3	3.9	472.0	268.1	249.2	67.8	157.1	0.24	9.50	Japan
Korea	448.9	97.6	180.3	198.4	63.8	6.5	184.7	93.8	86.9	32.9	50.6	0.70	9.30	Korea
Luxembourg	11.3	7.7	0.3	8.2	2.8	0.1	1.3	1.6	7.0	1.4	0.1	0.48	24.83	Luxembourg
Mexico	389.4	32.8	34.8	255.8	98.8	0.0	121.1	58.5	130.8	21.4	57.6	0.61	3.70	Mexico
Netherlands	182.9	15.7	30.3	68.8	80.6	3.3	57.1	40.3	34.6	17.8	33.1	0.45	11.21	Netherlands
New Zealand	34.9	62.9	9.8	17.9	7.1	0.0	11.9	4.8	14.1	0.5	3.6	0.56	8.51	New Zealand
Norway	37.0	28.9	3.0	22.3	11.2	0.5	0.8	7.3	13.8	0.7	14.4	0.20	8.00	Norway
Poland	295.8	-15.3	207.7	59.3	28.7	2.1	164.7	37.8	34.9	30.0	28.4	1.49	7.75	Poland
Portugal	63.0	59.1	12.9	40.9	8.6	0.5	24.9	8.5	19.3	2.3	7.0	0.54	5.97	Portugal
Slovak Republic	38.3	-32.7	15.7	9.2	13.2	0.2	10.7	8.5	6.5	3.5	8.0	1.50	7.11	Slovak Republic
Spain	341.8	64.8	80.1	193.6	67.2	0.9	114.6	84.5	110.7	20.7	31.3	0.50	7.87	Spain
Sweden	51.0	-4.5	9.9	37.2	1.7	2.2	9.3	11.8	22.9	1.5	5.5	0.19	5.64	Sweden
Switzerland	45.0	8.9	0.6	34.7	6.5	3.2	1.6	6.5	18.7	12.2	8.0	0.17	6.00	Switzerland
Turkey	218.3	70.2	87.4	78.6	52.8	0.1	74.4	57.1	37.9	29.1	20.5	0.89	3.04	Turkey
United Kingdom	529.9	-5.0	138.9	191.1	195.9	4.0	195.3	63.5	128.1	79.8	62.0	0.33	8.80	United Kingdom
United States	5 817.0	19.9	2 130.9	2 456.6	1 201.9	27.5	2 485.3	636.0	1 813.3	347.3	535.1	0.53	19.61	United States
G7	9 765.5	13.3	3 242.6	4 296.0	2 180.1	46.9	3 815.0	1 339.4	2 764.0	783.2	1 063.9	0.43	13.55	G7
EU27	3 684.9	-1.3	1 190.0	1 678.6	884.9	31.4	1 396.0	640.0	841.6	479.5	427.8	0.42	7.90	EU27
OECD total	12 909.7	16.4	4 335.3	5 698.6	2 802.1	73.7	5 038.2	1 889.4	3 521.3	1 034.7	1 426.2	0.45	11.02	OECD total
Brazil	339.0	75.9	30.7	241.2	47.1	0.0	36.2	104.0	138.0	13.6	45.1	0.51	1.82	Brazil
China	5 059.9	128.9	4 171.8	802.4	85.7	0.0	2 468.6	1 592.6	332.1	243.0	423.6	2.68	3.88	China
India	1 135.3	83.5	773.9	311.5	50.0	0.0	660.7	232.1	85.9	98.4	48.2	1.78	1.04	India
Russian Federation	1 542.9	-29.5	429.5	315.5	783.4	15.6	872.7	221.9	206.0	216.0	128.0	4.41	10.79	Russian Federation
South Africa	383.3	29.7	271.0	59.3	0.0	0.0	206.1	51.2	42.9	14.6	15.6	2.07	7.05	South Africa

The globalization nightmare 2

USA continues to increase CO2 emission. So does Australia, Canada...

Despite the fact that industrial production has been moved to Japan, Korea, Taiwan and now China and India. So the industrial CO2 emission is now larger in India and

China – the new global factory – and increasing. And the production is shipped to North America and Europe to be consumed in our shopping centers. The CO2 from transportation is still much larger in USA compared to the rest of the world and rising, but thousand of new cars are added every day so the others will catch up.



Yes we have a system failure

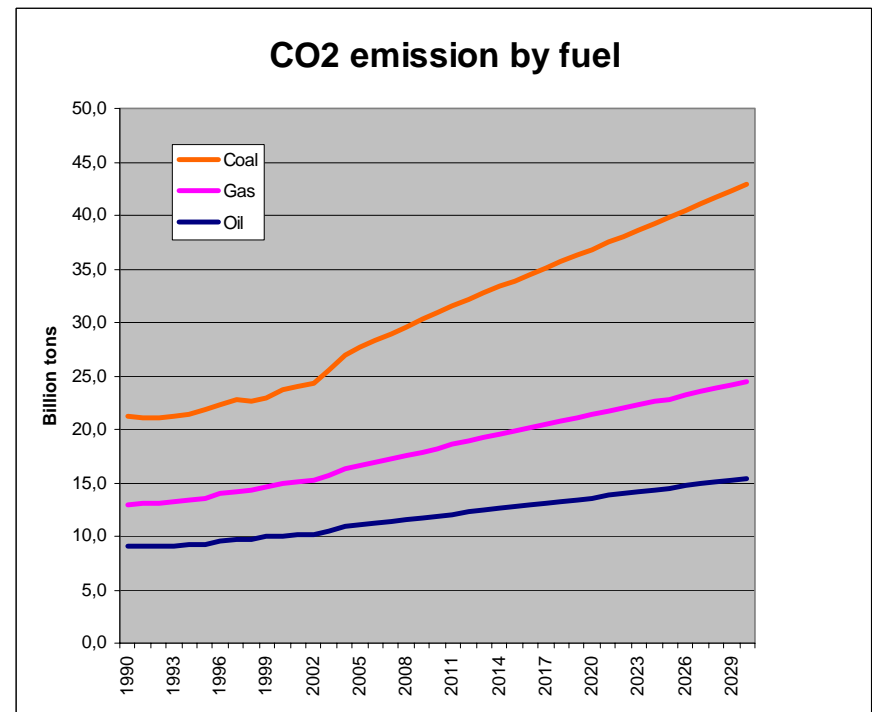
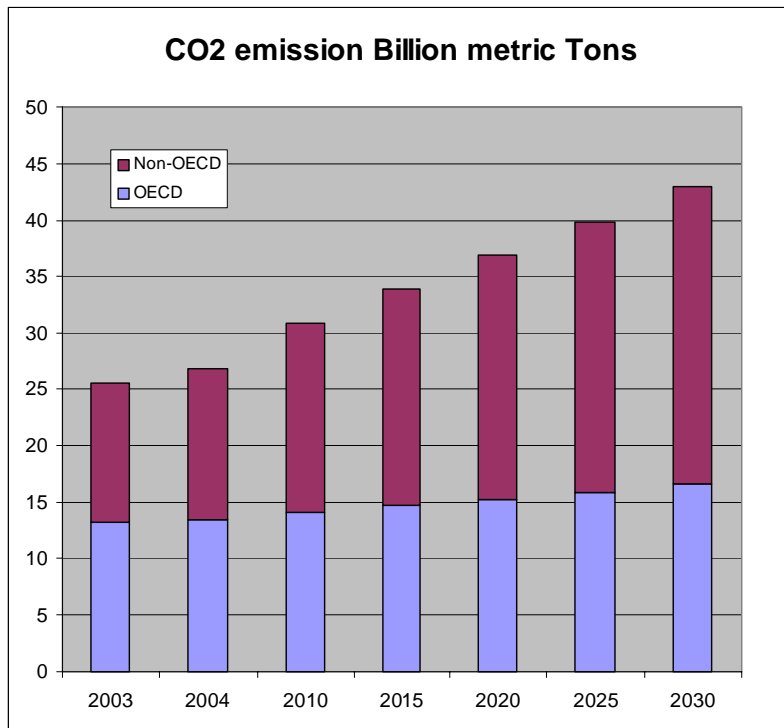
Our successful economic model is a complete failure! Our very basic western life style is an error in history! You will not find many of our present leaders (if any) who will agree. They will probably accuse you of many things from environmental terrorist to an old cruel communist.

But reality proves this. Nature, Mother Earth, Gaia has spoken. The very idea to dramatically increase consumption by eating up our common resources in order to make a few of us very rich is naturally absurd. Still we are today worshipping our new religion as we are hypnotized. And maybe we are considering this enormous flow of entertainment, advertising, advertainment when life itself has been reduced to money.

And despite the fact we in the rich western world have had such a development of material wealth we are not satisfied. We speed up the hunt for even more. We are running faster but we do not know where we are going. We are trapped in our nightmare and our greatest fear is that the stock market will crash or our jobs be moved to India so we work more, travel more, become more “flexible” and when we have it all we do not know what to do with it. Because the funny thing is that all this material wealth does not seem to make us happier.

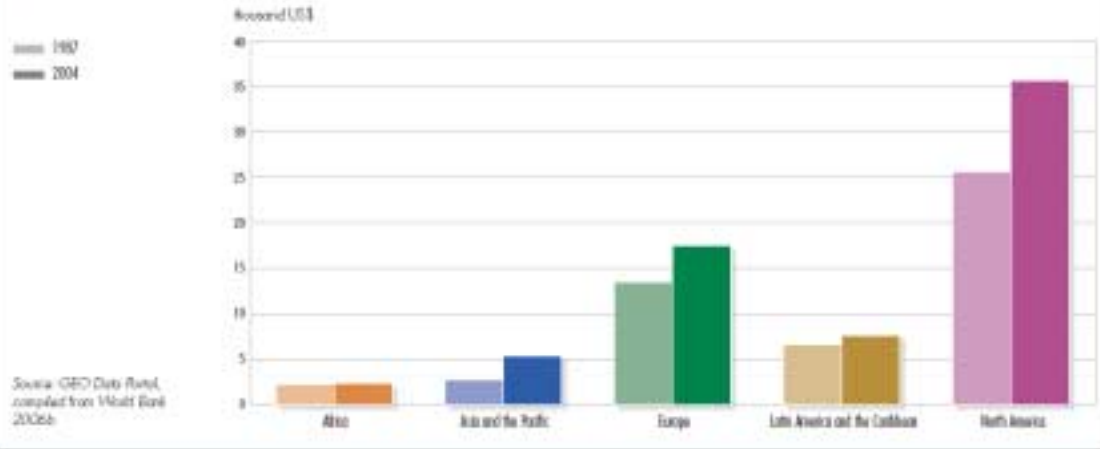
”Business As Usual”

This is the present trend and “weather forecast” for the next 20 years and presented by EIA – extreme heat. Normally they are right with their forecasts. But we can not allow this trend to happen. We can naturally not accept twice as much emission when the bucket is already full. But we can neither deprive the majority of the world to increase their standard of living. So one thing is absolutely clear. we need to drastically reduce the global emissions. That is very difficult. But we also have to find a way to distribute our common resources in a fair way. This means that the rich countries who are high polluters also has to reduce most. And this is even more difficult!



The unequal world wants to be equal

Figure 1.7 Gross domestic product – purchasing power parity per capita



Our standard of living is measured in Gross Domestic Product or "Purchasing Power" in our consumer based life style. The more we can consume the higher our GDP. And the world is richer today compared to only twenty years ago. But there is now free lunch.....

In our globalized world this is now the only economic model and the rest of the world are following in the foot steps (or rather the tracks of the wheels) of the American model. This means consumption of not only energy but water, meat, land and raw material increases. And this produce more waste, which.....

Figure 6.42 Comparison of per capita water use by region

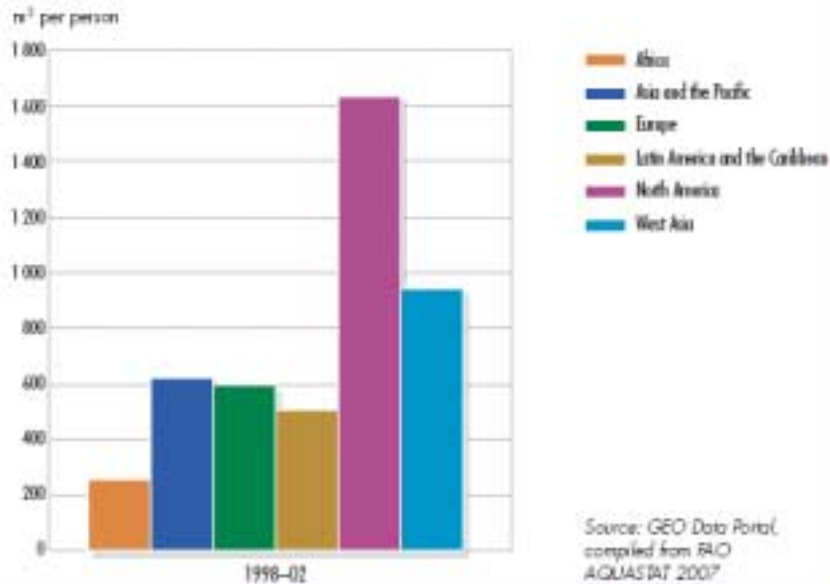
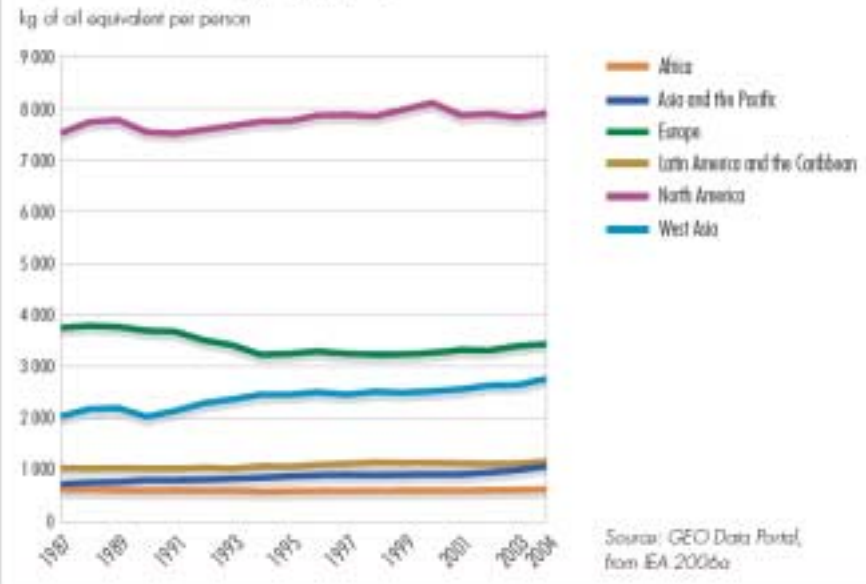
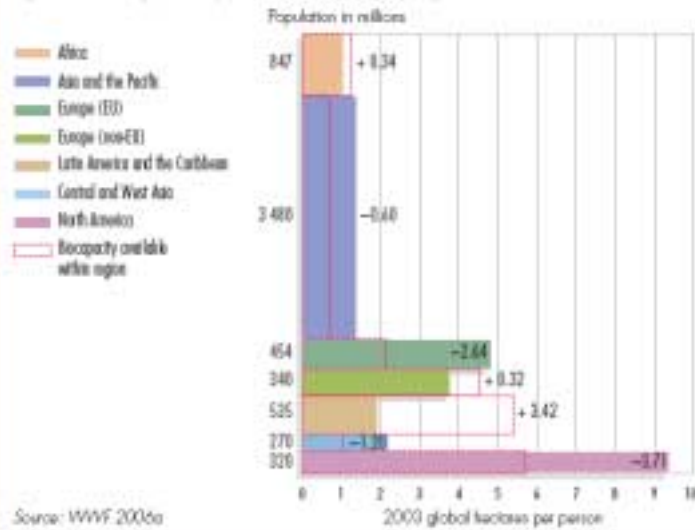


Figure 1.8 Primary energy supply per capita



But the human footprint is already too large

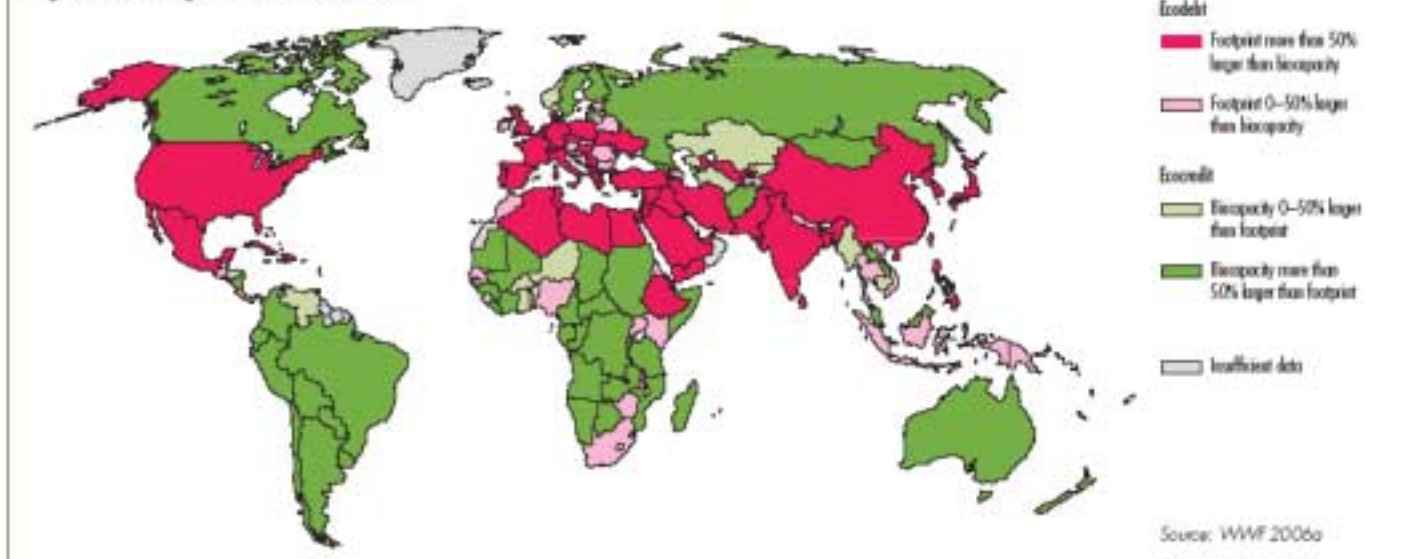
Figure 6.2 Ecological footprint and biocapacity by region, 2003



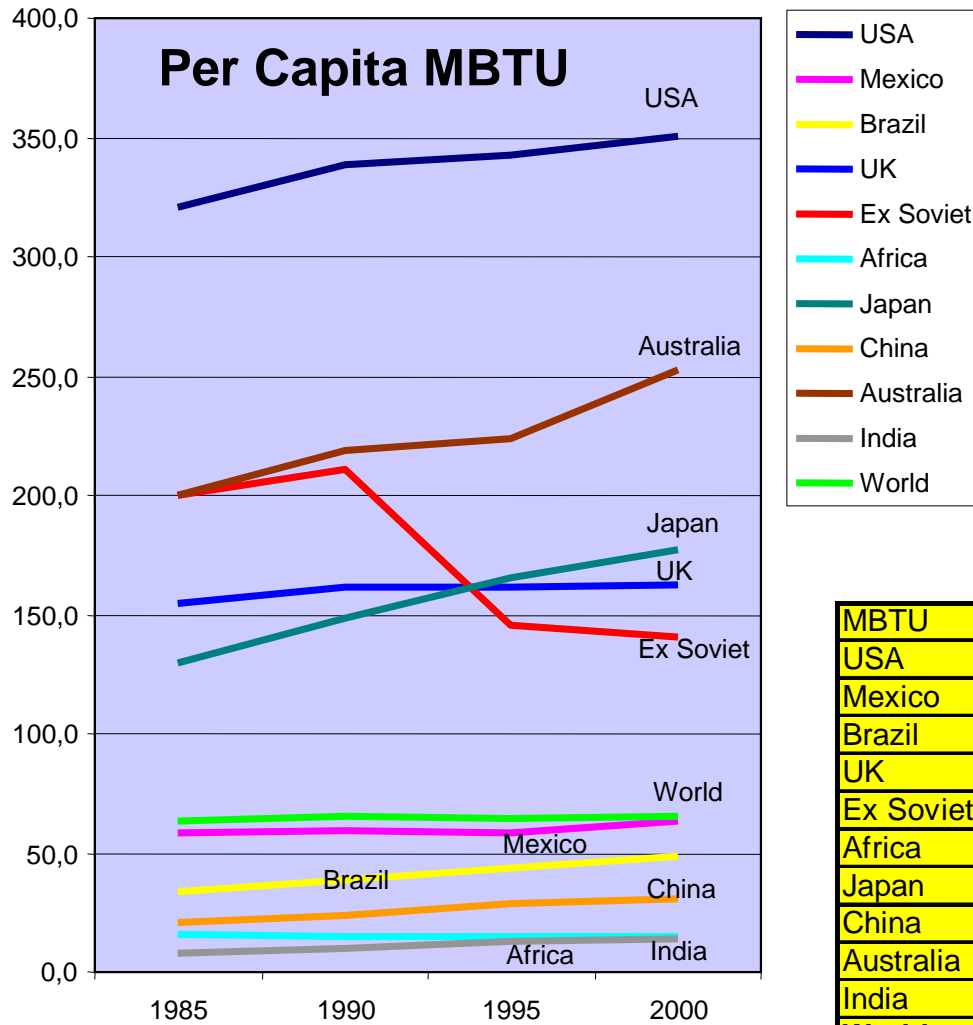
Source: WWF 2006a

The CO2 emission is the BIG problem. But this is only one in the total pressure on nature. The un-sustainability of the way the Earth's natural resources are being used is increasingly evident. Humanity's footprint is 21.9 ha/person, while the Earth's biological capacity is, on average, only 15.7 ha/person, with the ultimate result that there is net environmental degradation and loss. Thousands of new alien substances are pushed into nature every second. And it is increasing rapidly.

Figure 6.59 Ecological creditors and debtors



And the unequal world remains unequal



USA has the highest purchasing power and the highest consumption of energy and other raw materials in the world, especially oil. After the oil crisis some 25 years ago when the oil consumption was reduced and we "talked" about changing our model to be more energy efficient with recycling etc we had the chance. The big mystery is that we forgot everything and continued as before.

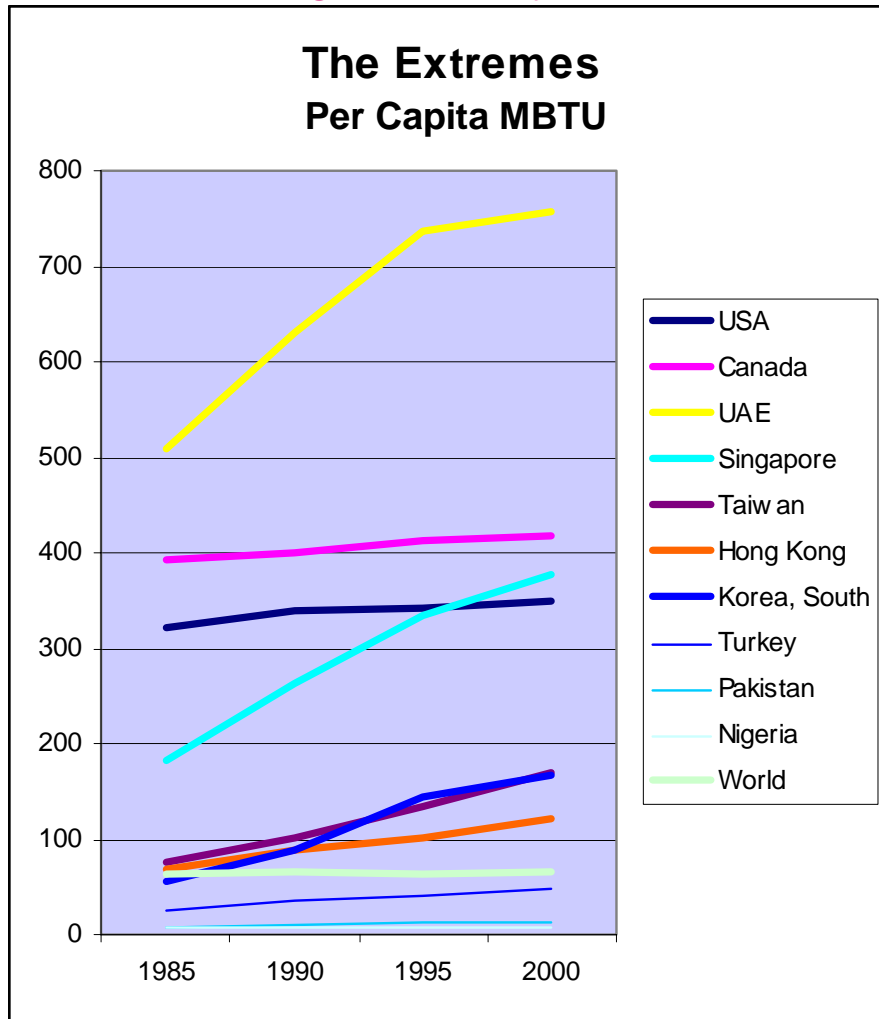
The per capita energy consumption in the large western economies; USA, Australia, Japan and UK continued to increase! "The same countries as now is occupying Iraq. The only real change was the collapse of the Soviet union.

The gap between the rich and the poor grew. The per capita growth in USA was more than double the TOTAL energy consumption in India.....

MBTU	1985	1990	1995	2000	Change
USA	321,1	338,5	342,1	350,6	29,5
Mexico	58,6	59,4	58,4	63,3	4,7
Brazil	33,7	38,3	43,1	48,9	15,2
UK	154,3	161,4	161,7	162,6	8,4
Ex Soviet	200,4	211,2	145,7	140,4	-60,0
Africa	15,6	15,1	15,0	15,0	-0,6
Japan	130,1	148,6	165,2	177,2	47,0
China	20,8	23,5	28,9	30,6	9,8
Australia	200,0	218,4	223,6	252,2	52,2
India	7,7	9,5	12,5	13,5	5,8
World	63,6	65,8	64,2	65,7	2,1

The extremes of progress

Economic growth require energy. The question is how much is reasonable. Canada and USA are “Unreasonable high”. Nigeria who is one of the main exporters of oil to USA and Pakistan who is a close “friend” in the US “war on terror” are unreasonable low resulting in poverty and “terrorism”. Even Turkey (Part of NATO) is very low.



2004 figures in MBTU (thermal units)

1979 I visited Singapore for the first time and I have later been back several times. The progress is amazing. This small “Chinese island” became the first “out sourced” factory to produce electronics for the shopping centers in North America and Europe. Today Singapore is an air conditioned shopping mall and has surpassed USA per capita consumption.

1984 I visited South Korea for the first time. From Seoul I went to Ulsan and Pusan, cities I never heard of but where they were building the largest oil tanker in the world. Today South Korea has almost reached the Japanese consumption level. 1979 I visited another “Chinese island”, Hong Kong but also main land China. The difference was huge. It still is since Hong Kong consume 4 times as much energy as main land China. But it is shrinking fast!

what we call Middle East was divided by the western countries after the first world war. British and American oil interests entered into Saudi, Kuwait and the Emirates that shared their profits with the ruling king and his family. I have for long been traveling through the Middle East and experienced the Muslim religious culture of prayer and simple life style. The conflict between their beliefs and our western way of living is enormous.

But a few of the rich are “converting”. Now we have a new Mecca for consumers. UAE and Dubai provides today everything from gold and electronics to expensive whisky and Russian prostitute. And has the largest energy consumption in the world.

A call for help from UNDP

This is the required actions that UNDP presented in their report before the Bali meeting. They are asking developed countries to cut CO2 emissions by 80% until 2050. They are also limiting the emissions from the developing countries. There are no longer any “good” solutions. We are into crisis management. And the crisis is global. It is going to test the human race if we have matured so we can handle this or if this will turn out to a really nasty conflict and world war. A globalization nightmare so horrible we could never even dream about it.

Fighting climate change: Human solidarity in a divided world provides practical proposals for Bali, a checklist of options for the back pocket of every policy-maker to ensure that the needs of the poor and most vulnerable are central to any decisions taken on a new, post-Kyoto climate change regime.

Developed nations have a historic responsibility to cut emissions, climate-proof their growth and invest heavily in adaptation in developing countries to prevent catastrophic reversals in health, education and poverty reduction for the world's poor, says the Report – and a narrow ten-year window of opportunity remains to act.

If that window is missed, temperature rises of above two degrees Centigrade could see an extra 600 million people in sub-Saharan Africa go hungry, over 200 million more poor people flooded out of their homes and an additional 400 million exposed to diseases like malaria and dengue fever.

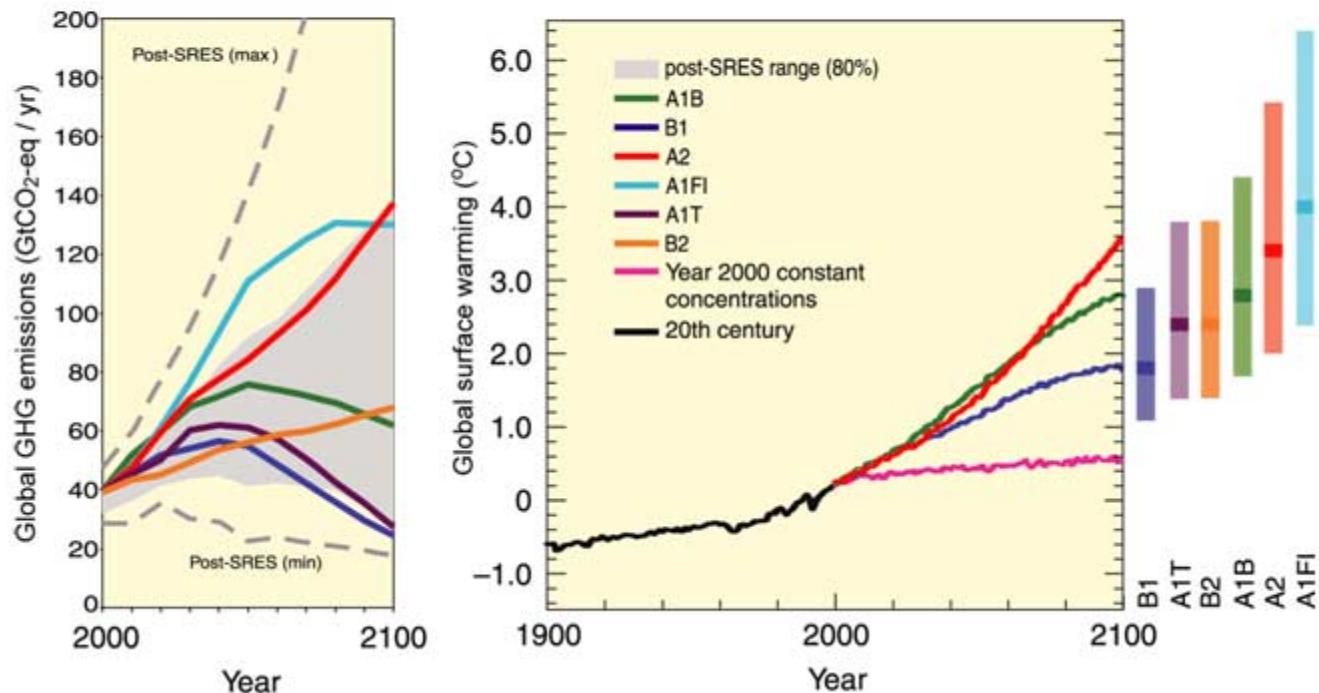
The Report lays out a checklist for action:

- **Cut** emissions by at least 80 percent by 2050 for developed countries and 20 percent by 2050 for developing countries from 1990 levels;
- **Create** a Climate Change Mitigation Facility to finance low carbon pathways for developing countries;
- **Put** a proper price on carbon with a mixture of carbon tax and cap-and-trade schemes, building on and going beyond the Kyoto Protocol;
- **Harness** carbon markets for the poor;
- **Strengthen** energy efficiency regulatory standards;
- **Support** the development of low carbon energy provision;
- **Invest** urgently in breakthrough technologies like carbon capture and storage;
- **Allocate** US\$86 billion annually to adaptation in poor countries;
- **Build** adaptation into all poverty reduction plans;
- **Insist** that carbon sequestration on forests and land are essential elements of a future global agreement.

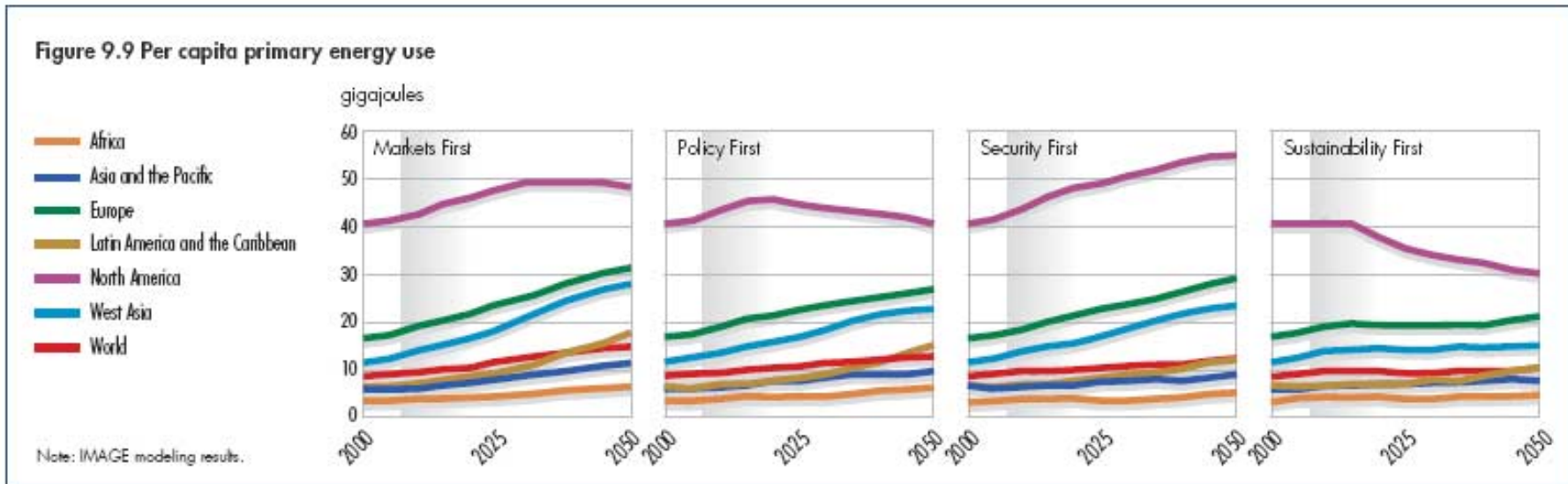
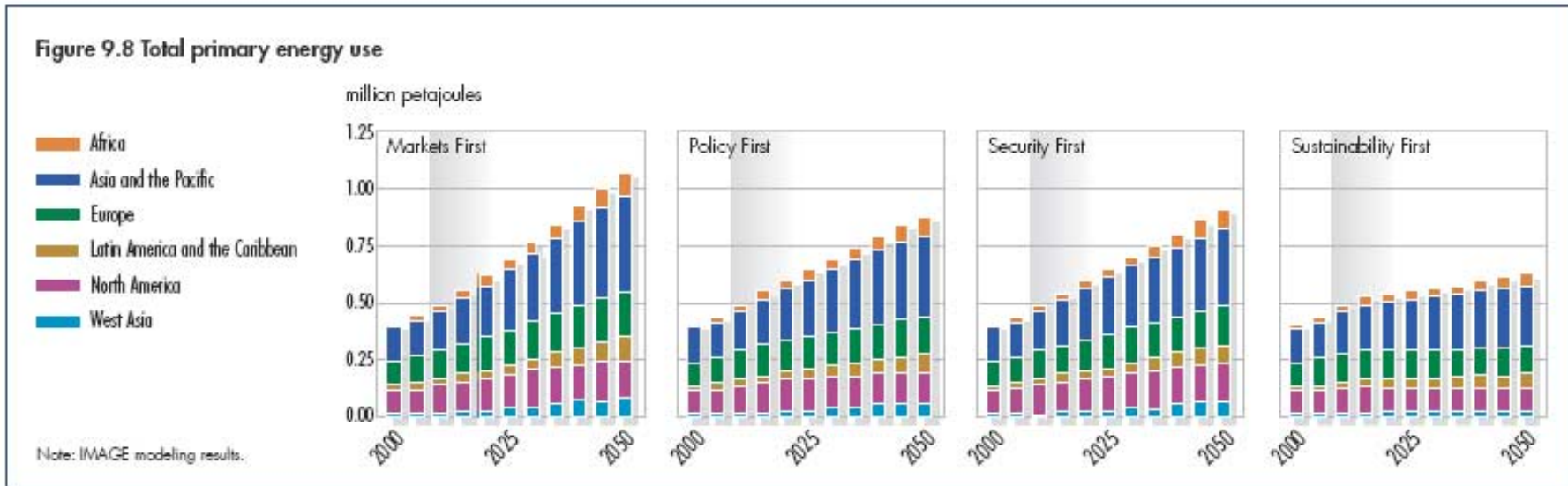
This is our future

Because we have not responded to this in time we have already passed the limit. Even if we would freeze the cO2 level of today the temperature will rise. But we can decide with how much, 1, 2, 3, 4, 5, 6 degrees. If we should limit the increase to between 1-2 degrees we need to drastically cut the total world emission and start today. Switch of your air-condition. Don't go to the shopping center. Write as many e-mails as you want –but switch off the computer in between. It still consumes at stand by. Save what ever you can. And spread the message!

Scenarios for GHG emissions from 2000 to 2100 (in the absence of additional climate policies) and projections of surface temperatures



The four UN scenarios.....



.. are all very frightening!

The reason is that we are already much too late. But there are degrees also in hell.

Market first: Is Business As Usual according to present globalization with maximum economic growth.

Policy First: The dominant characteristic of this scenario is the highly centralized approach to balancing strong economic growth with a lessening of the potential environmental and social impacts. A key question is whether the slow and incremental nature of this approach will be adequate.

Security First: Government and private sector compete for control in efforts to improve, or at least maintain, human well-being for mainly the rich and powerful in society. Security First, which could also be described as Me First.

Sustainability First: The dominant characteristic of this scenario is the assumption that actors at all levels – local, national, regional and international, and from all sectors, including government, private and civil – actually follow through on the pledges made to date to address environmental and social concerns.

Despite a possible slowing down of global environmental change, the peak rate and end point of change differs strongly among scenarios. The higher the rate of change, the greater the risk that thresholds in the Earth system will be exceeded in the coming decades, resulting in sudden, abrupt or accelerating changes, which could be irreversible. Differing rates of change lead to very different end points for the scenarios. Under *Markets First*, 13 per cent of all original species are lost between 2000 and 2050 as compared to 8 per cent under *Sustainability First*. The range in 2050 for atmospheric CO₂ concentration is over 560 ppm in *Markets First* as compared to about 475 ppm under *Sustainability First*. It is expected that the risk of exceeding thresholds increases with a higher level of change, and that this change could be sudden rather than gradual. For example, the GEO-4 scenarios showing the fastest rate of increase in fish catches are also accompanied by a significant decline in marine biodiversity, leading to a higher risk of fisheries collapse by mid-century.

A challenge for humanity

Our western civilization has been a history of cruel wars, colonization and slavery. Definitely not a flattering history for neither Europe terrorizing the rest of the world nor America that was built on ethnic cleansing of native humans, plants and animals. Each war has been more cruel with more civilians dead and with more powerful weapons. And we never seem to learn. The civil war on Balkan, the American invasion of Iraq and the African tribal wars are all dirty and cruel independent if it is the American army, African war lords or nationalistic Serbs or Croats who are responsible.

But the third world war we are now entering is going to be much worse.

It could lead to a tribal and civil war on a global scale un paralleled by anything before. A real night mare! When we are fighting among each other for the remaining land, resources, water and food on earth while thousands of plants and animals are going extinct. When the rich and powerful will grab what is left and protect themselves in islands behind bars and guns. To avoid this we have to rediscover our humanity. The values of human life. This will require a spiritual awakening. But it will also require all efforts and dedication to resist the other way – “The road to hell”.

Sustainability first is our only human option

Figure 9.12 Global total equivalent carbon emissions from anthropogenic sources by sector

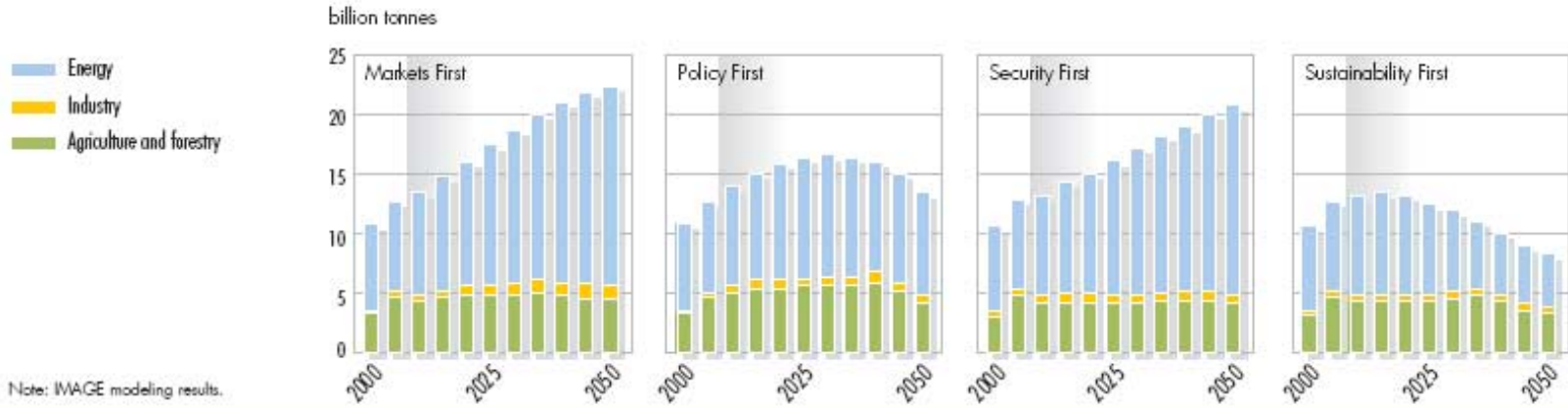
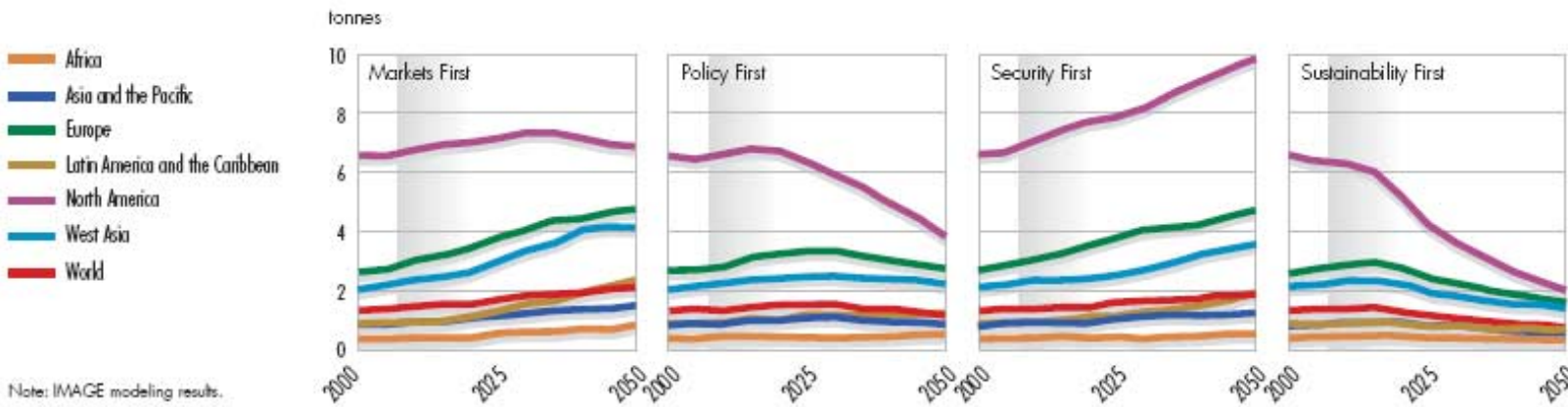
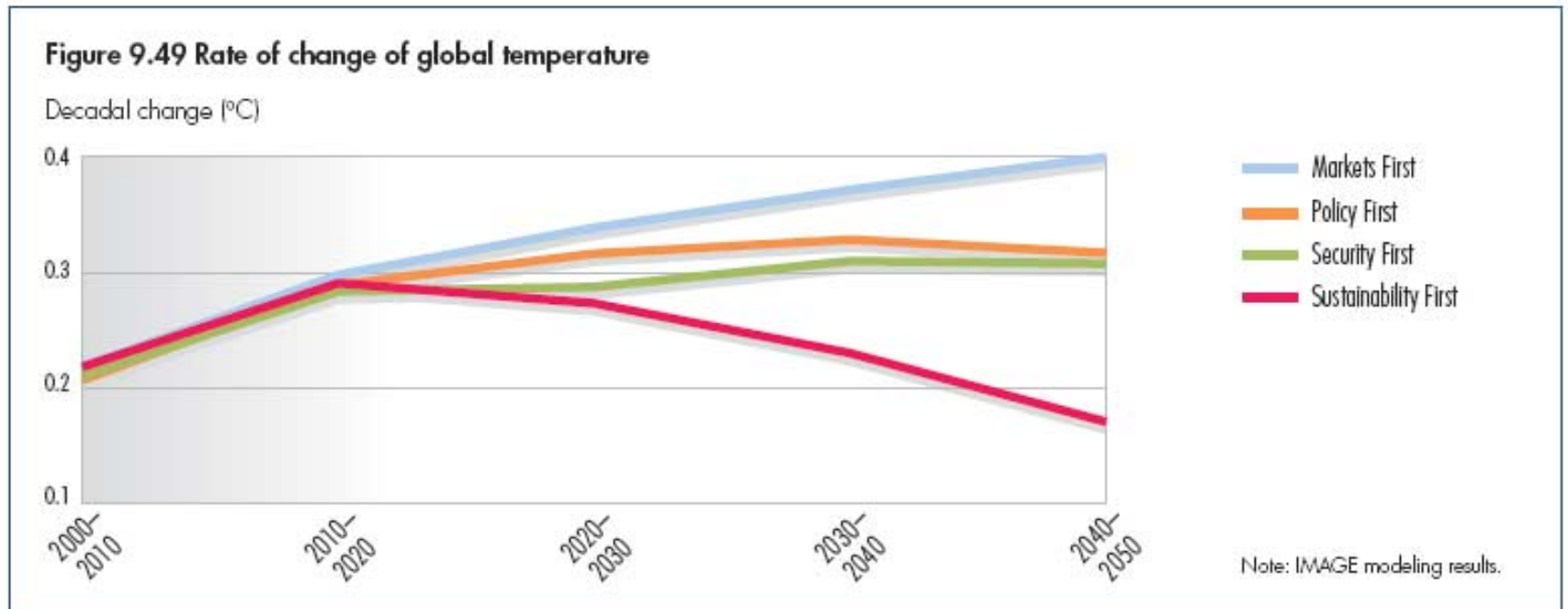


Figure 9.13 Per capita equivalent carbon emissions from energy and industry by region



Sustainability first is our only survival

All scenarios will give about two degrees warming by 2050. The reason is that we already has polluted so much and the CO2 stays in the atmosphere for hundreds of years. The other reason is that all scenarios will continue to use fossil fuel although on different levels. But while Market firsts will continue as today with an increased increase growing to maybe 0.5 degrees per decade and melting both Greenland and Antarctica with several meters increase of the sea level. Only sustainability first will limit the increase and start the difficult journey back to a more stable situation. Since both policy first and security first will continue at 0.3 degrees increase per decade this is also damaging. Our ONLY option to reach something similar to today without mass extinction of species, mass starvation and a horrible world is “Sustainability first”.



The Global Nightmare

According to the ancient Maya culture the end of the world is December 22nd year 2012. Most probably it will not go so fast but with the present development we are facing a very troublesome future.

Unless we immediately halt the carbon dioxide emission we will pass the threshold that will release the genie out of the bottle. Since the global warming now is causing a more acid ocean the ability to absorb carbon dioxide is reduced. The Niño weather system is affected as well as currents in the Ocean. The Amazon rain forest is not only endangered by human deforestation but with draught and could disappear. When the massive ice caps of Greenland and Antarctica will melt the rise of the Ocean level will be in meters, not centimeters. When the tundra is melting and the plankton dies in the Oceans the nature will start to emit carbon dioxide, not absorb it.

Changes in climate has occurred before. There is a hidden oasis in the middle of the Sahara desert with crocodiles. Fossils on Greenland tells about a warmer period with vegetation. But never before it is happened so fast. The ice is now disappearing faster than the polar bears and penguins can run. Our ecology is a delicate balance between flowering plants, insects and birds. But the nature is no longer synchronized. And the worst scenario is a runaway development similar to what once upon the time happened on planet Venus. This would be the end of life on earth. The biggest mystery of the evolution is how the most intelligent species ever, Homo sapiens can be the absolute most stupid creature to commit a collective suicide.