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WHERE IS THIS WORLD GOING TO?



Credits

- CRED
- World Bank
- ISDR
- UNEP
- UNDP
- The Institute of Noetic Sciences
- UNU WIDER
- IPCC
- International Alert
- Global Issues
- Oxfam
- Amnesty International
- U.S. Department of Energy
- Wikipedia
- Global Footprint Network
- ZEITGEIST



Behind the numbers

- Today, the world is facing disaster on an unprecedented scale: **more than 255 million people were affected by natural disaster globally each year, on average**, between 1994 and 2003, with a range of 68 million to 618 million.
- During the same period, these disasters claimed **an average 58,000 lives annually**, with range of 10,000 to 123,000.
- In the year 2003, **1 in 25 people** worldwide was affected by natural disasters.

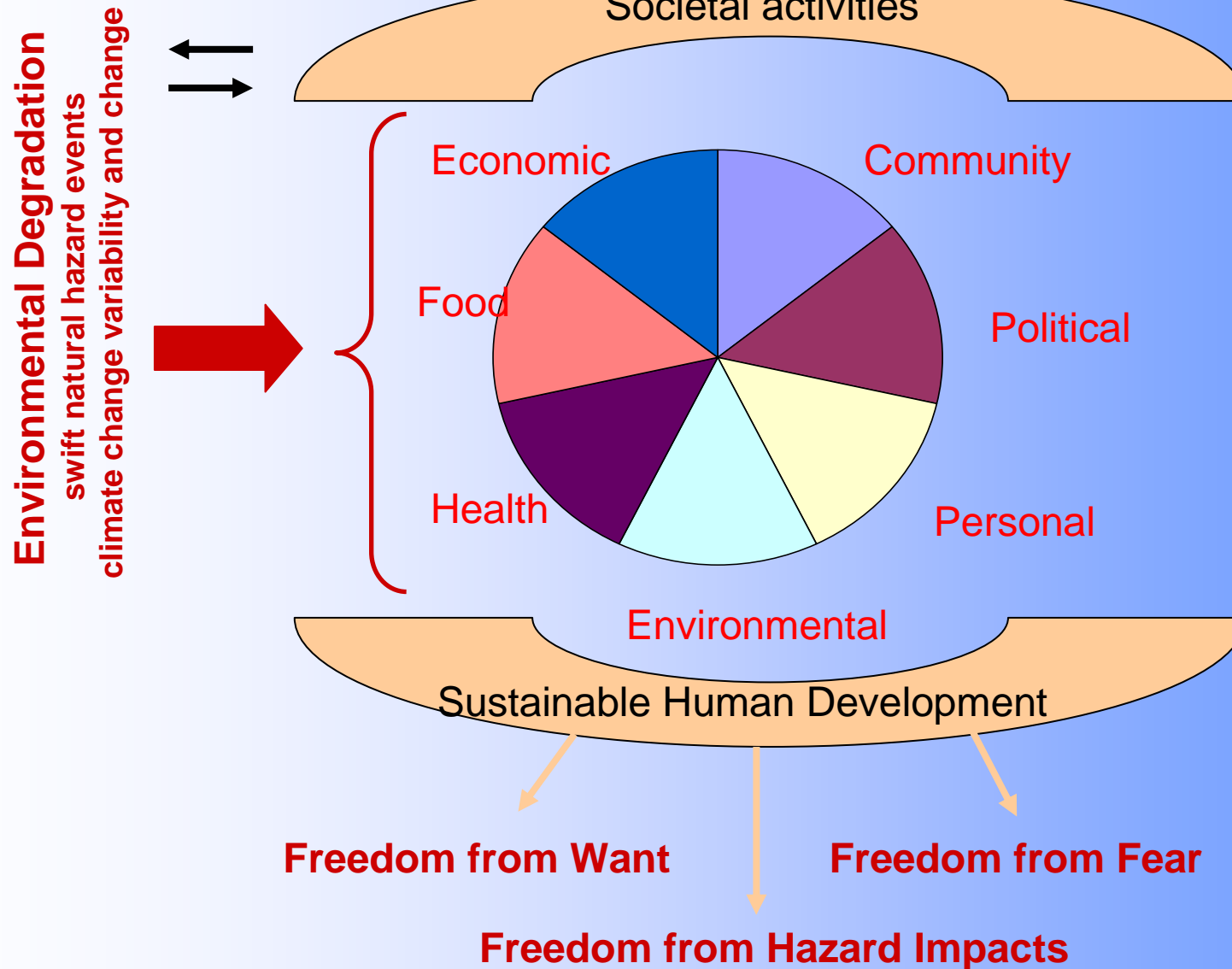


Behind the numbers

- During last decade disaster caused damage of an estimated **US\$67 billion per year on average**, with a max. of US\$230 billion and min. of US\$28 billion.
- The economic cost associated with natural disasters **has increased 14-fold** since 1950s.



Human Security is at Stake



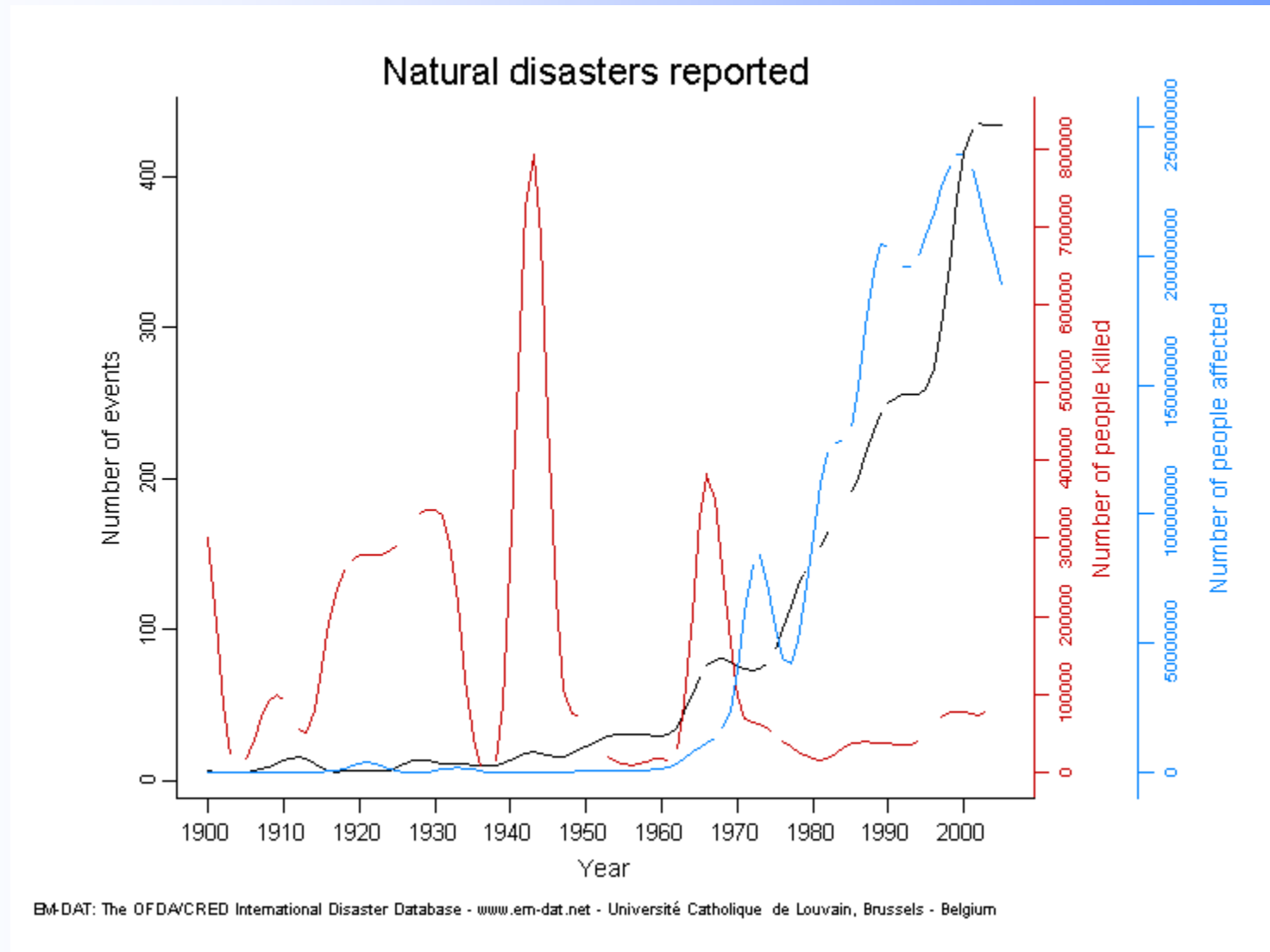


The harsh reality behind the statistics

- Based on the data from the CRED's EM-DAT database, between years 1974 and 2003 there were **6,367 natural disasters**, not counting epidemics.
- This resulted in the:
 - Reported deaths of more than **2 million people**
 - About 5.1 billion people being cumulatively affected
 - 182 million persons made homeless
 - Estimated reported damage of US\$1.38 trillion



Natural disasters reported 1900-2000





Top 10 disasters ~1.4 mill. people killed

Table 3 - Top 10 disasters with highest numbers killed: 1974-2003

Disaster type	Year(s)	Country(ies)	Number of deaths
1. Drought	1984	Ethiopia & Sudan	450,000
2. Drought	1974 – 1975	Sahel Region	325,000
3. Earthquake	July 27, 1976	China	242,000
4. Cyclone (Brendan)	April 30, 1991	Bangladesh	138,866
5. Drought	1985	Mozambique	100,000
6. Earthquake	June 1, 1990	Iran	40,000
7. Flood	December 1999	Venezuela	30,000
8. Heat wave	July-August 2003	Western Europe	29,264
9. Flood	July 1974	Bangladesh	28,700
10. Earthquake	December 26, 2003	Iran	26,796



Top 10 disasters – people affected

Table 4 - Top 10 disasters with highest numbers affected: 1974-2003

Disaster type	Year(s)	Country(ies)	Number of people affected
1. Drought	1987	India	300,000,000
2. Drought	2002	India	300,000,000
3. Flood	August 1988	China	223,000,000
4. Flood	May 1991	China	206,000,000
5. Drought	1979	India	190,000,000
6. Flood	1996	China	150,000,000
7. Flood	July 1993	India	128,000,000
8. Flood	May 1995	China	114,400,000
9. Flood	June 1999	China	100,000,000
10. Flood	July 1989	China	100,000,000



Link between poverty and disasters

The occurrence of natural disasters is based on the convergence of two major factors:

- Hazard factor
- **Vulnerability factor**
- It might seem self-evident that disasters have a greater impact on poorer countries.
- It is important to understand how poverty and the impact of disasters are linked!



Link between poverty and disasters

**Table 5 - Comparing the human impact of natural disasters
between the 10 richest and 10 poorest countries**

Country	GDP (US\$) per capita 2002	Annual average victims/ 100,000 population 1974 - 2003	Country	GDP (US\$) per capita 2002	Annual average victims/ 100,000 population 1974 - 2003
Luxembourg	44,000	0	Somalia	550	2,701
United States	37,600	59	Sierra Leone	580	155
Norway	31,800	5	Burundi	600	674
Switzerland	31,700	2	Congo, RD	610	114
Ireland	30,500	4	Tanzania	630	1,531
Canada	29,400	72	Malawi	670	8,748
Belgium	29,000	2	Afghanistan	700	1,120
Denmark	29,000	0	Eritrea	740	6,402
Japan	28,000	182	Ethiopia	750	5,259
Austria	27,700	29	Madagascar	760	2,090



Link between poverty and disasters

- Poor population often end up:
 - living in high risk / environmentally degraded areas,
 - having the least access to social safety nets or infrastructure,
 - having a few savings or available credits.



Migration and (unregulated) urbanisation

One of the primary factors linking poverty and vulnerability is the migration of poor populations into hazardous areas, for example,

- Expansion of the cotton plantations in the 1960s in Nicaragua forced poor people to move from fertile plains to makeshift shantytowns on the slope of the Casitas volcano, beneath the deforested volcanic slopes...
- ... during Hurricane Mitch, crater lake collapsed and created deadly landslide, killing dozens of slum dwellers.



Migration and (unregulated) urbanisation

- Typically, the poorest of rural population move into least desirable surroundings on the periphery of cities and create large informal settlements (Calcutta, Rio, Johannesburg).
- These settlements are often established on unstable slopes (Guatemala City, Mexico City), which are highly seismic and prone to landslides.
- Migrants settlements on canal embankments (Manila, Dhaka), living in constant fear of floods, which occurs regularly.



The economic consequences of disasters

- The Kobe disaster is one of the most expensive in absolute terms (US\$159 billion), but it represents less than 3% of Japan's GDP.
- Guatemala earthquake, in 1976, represents almost 25% of its GDP.

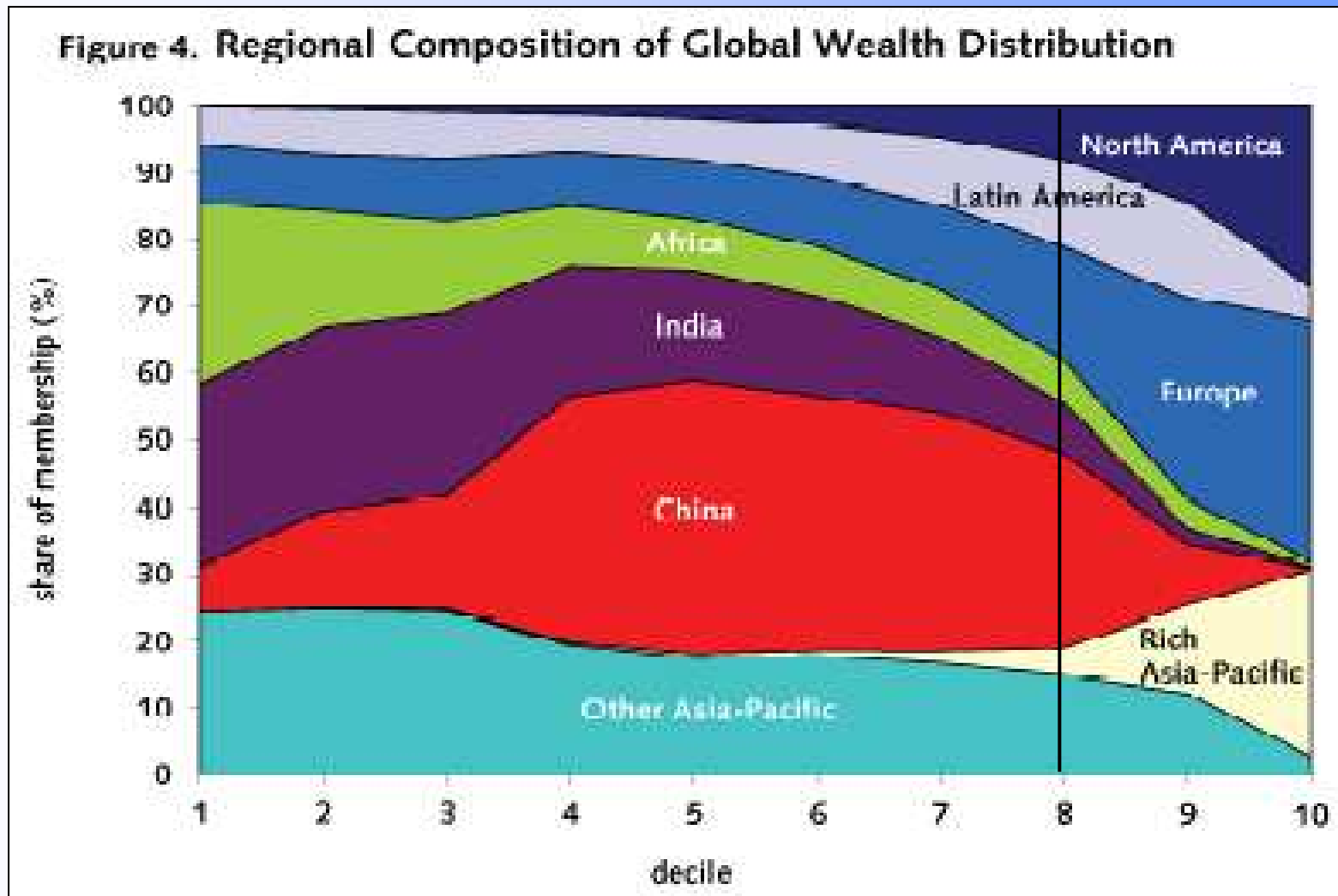


Vulnerability creation (Western world assumptions)

- Growth is good; more is better.
- Economic wealth is the truest sign of progress.
- “The market” is the most reliable measure of value.
- Individual selfishness serves the common good.
- We live in a world of scarcity.
- Humans are superior to other creatures (and how to control the Nature).
- The Earth is ours to exploit.
- The world consists of “us” and “them”.
- Technology will save us.



World Wealth Levels per Capita



Source:

WIDER 2006 *Wider Angle*, No. 2, p6, World Institute for Development Economics Research, UNU, Finland

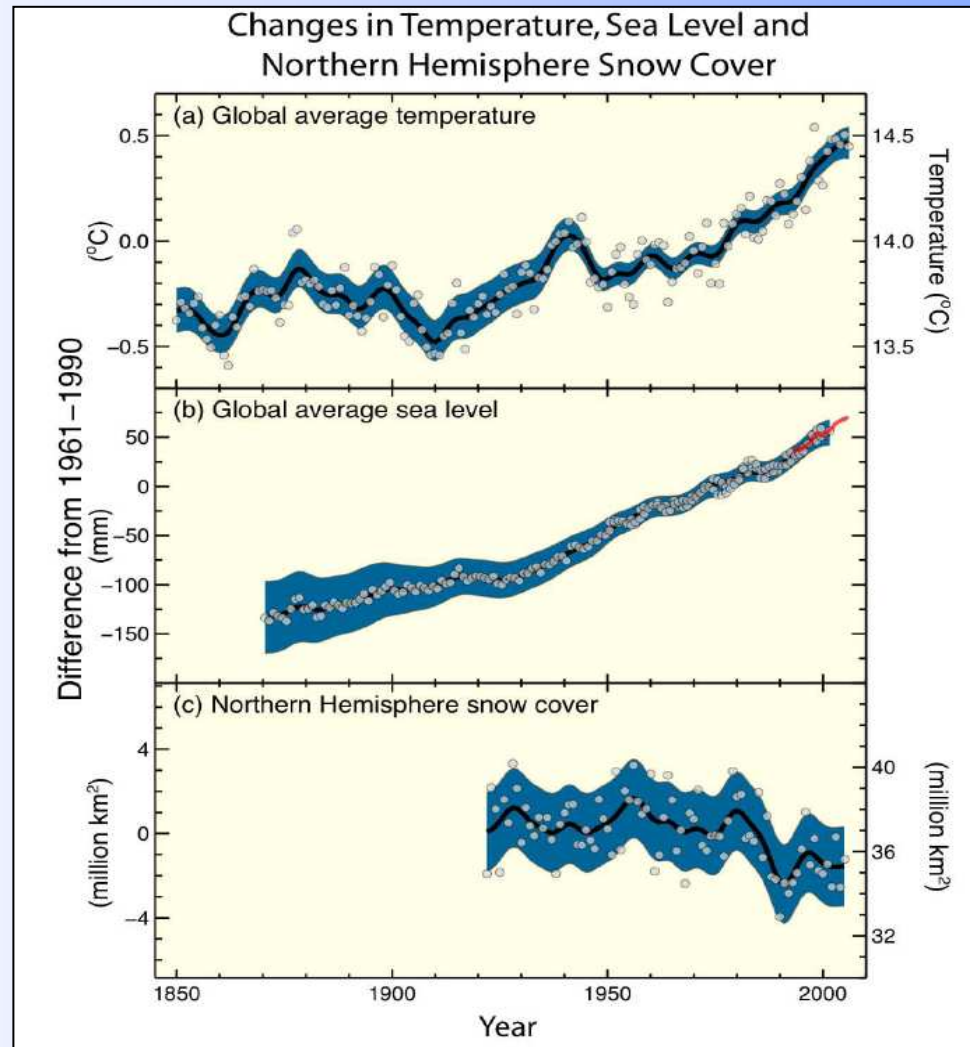


Assumption's consequences

- Contribution to climate change.
- Mass dislocation and resource wars.
- Arm sales.
- Peak oil.
- Population growth.



Climate change indicators



Source:

IPCC 2007 *Climate Change 2007: The Physical Science Basis - Summary for Policy Makers*. Contribution of Working Group 1 to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Formally approved at the 10th Session of Working Group I of the IPCC, Paris, February 2007, p.6



Mass dislocation and resource wars

- ~3 billion people in 46 countries, already afflicted by poverty, poor governance and socioeconomic tensions, will be hardest hit by climate change.
- It will result in political chaos, violent conflict and mass migration.
- As water and arable land become scarcer, and food price higher, conflicts over resource access and use will increase.

Source: "A Climate of Conflict", International Alert.



Arms sales

- Greed, political instability, ethnic conflicts, resource protection, U.S. invasion of Iraq have helped increase worldwide military spending by 34%, over the past 10 years.
- It is now over one trillion dollars, an amount approaching that during the Cold War.
- The U.S. is responsible for nearly half of that total, with the U.K., France, Japan and China.
- Military spending increase: China 165%, Saudi Arabia 94%, India 82%.
- Developing nations continue to be the primary focus of foreign arms sales activity.

Source: Global Issues, Oxfam, Amnesty International.



Peak oil

- Worldwide oil demand is expected to increase by 50% by the year 2025.
- Predictions are that world oil production will begin to decline in the next few years.
- “Peak oil” has already occurred in 64 countries.
- *“... the development of the U.S. economy and lifestyle has been fundamentally shaped by the availability of abundant, low-cost fuel. Oil scarcity and several-fold oil price increases due to world oil production peaking could have dramatic impact... The world has never faced problem like this.”*

Source: 2005 U.S. Department of Energy Report “Peaking of World Oil Production”.



Population growth

- Expected to exceed 6.6 billion early this year - more than double the figure of 1965.
- And reach 9 billion by the year 2050.
- While the rate of increase has gone down from 2.2% to 1.1%, overall increase is by approx. 80 million people each year.
- In the late 1980s human activities and needs began exceeding Earth's biological capacity to provide sufficient raw material and absorb wastes.
- Now we are more than 25% over Earth's capacity.



Human induced disasters

- Greed, hunger for power, domination and financial control.
- 20th century wars and conflicts:

WW I
Russian Civil War
Stalin's regime
WW II
Chinese Civil War
Mao Zedong's regime
Korean War
Rwanda & Burundi

Ethiopia
Vietnam War
Cambodia (Khmer Rouge)
Afghanistan
Iran - Iraq War
Sudan
Kinshasa Congo (DRC)
Iraq War

Total death toll: ~ 150 million people



Something to think about

“They must find it difficult...
Those who have taken
authority as the truth,
rather than truth as the
authority.”

(G. Massey, Egyptologist)



“When the power of love overcomes
the love of power,
the world will know peace.”

(Sri Chimnoi Ghose)



**Let's work together,
be positive
and make people around us
positive**

Thank you very much.